Vermont Environmental Report

LAKE CHAMPLAIN: WHAT’S AT STAKE?

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Giving Back to Lake Champlain

By Elizabeth Courtney, Executive Director

This year marks the 400th anniversary of French explorer and cartographer Samuel de Champlain’s travels to the lake that now bears his name. All year long, people are gathering to celebrate and commemorate this anniversary, the spectacular natural resources of the region, and the many peoples who have made their homes in the Lake Champlain watershed. Lake Champlain is such a significant and popular natural resource that its Vermont shoreline is sometimes referred to as the “West Coast of New England.”

Indeed over the centuries the lake has contributed to Vermont’s economy, our quality of life and to the biodiversity and ecological richness of the area. Much of Vermont’s prosperity over the course of our history is attributable to Lake Champlain. This lake has given us many gifts and, as such, it is fitting that we give back in return and sing the praises of New England’s “Great Lake” this year.

In doing so, it is our hope that more Vermonters will understand the critical role the lake plays in our lives, from providing a significant economic engine (some $2.7 billion from tourism annually) to drinking water for tens of thousands of Vermonters, to a host of ecological treasures from the cold depths within the lake to its shallow warm shores and over 300,000 acres of wetlands.

But more importantly, we hope that Vermonters will come to understand the extent of the Lake Champlain watershed – the land area that drains into Lake Champlain from Quebec and New York and Vermont. Fifty-six percent of the total Lake Champlain watershed is in Vermont. And that portion of the watershed covers most of Vermont’s landscape—from Montpelier to Rutland and from Richford to Alburgh. Of our 620,000 citizens, 370,000 live in the Lake Champlain watershed.

That’s a lot of Vermonters – and cows, corn and cars – contributing to the runoff: the rain and snow melt that drains off the roofs of buildings, roadways and over lawns and earth into the rivers and streams that feed Lake Champlain. It carries with it the unintended consequences of the lifestyles of over three quarters of Vermonters – phosphorus overloads, silt, salt, pesticides, herbicides, petrochemicals, pharmaceuticals – and these pollutants end up in Lake Champlain. If the lake is troubled, and we know it is, the root causes of these water quality problems can be traced back up into Lake Champlain’s broad watershed.

This underscores the fact that how we live on the land in Vermont plays a prominent role in water quality. If we really want to treat Lake Champlain to the best 400th Anniversary gift in return for its centuries of gifts to us, we need only to conserve and responsibly manage Vermont’s forests and farmland, carefully plan for compact, efficient and low impact development and be cognizant of what we put – even inadvertently – into the lake.

No matter how far removed from our “Great Lake” we think we are, let’s remember that Lake Champlain is the watershed address for more than half of all Vermonters. We can give back to the lake by accepting our share of responsibility for restoring Lake Champlain’s health and its capacity to bring the full wealth of its gifts to the region.
Let's Not Lose This Lake

BY MATT CRAWFORD

Just southwest of St. Albans Bay there’s Burton Island. It’s a state park, one of about 80 islands that dot Lake Champlain. I spent a lot of time on Burton Island as a kid, in particular on the west side of the island in a little cove with a rocky beach. My folks and various aunts and uncles all had boats, and when the wind wasn’t blowing and the clouds weren’t dark and pregnant with rain we’d all meet up there on the west side of Burton Island and fritter away the hours that make up a summer day.

We’d fish. We’d swim. We’d barbecue. We’d clamor to see the skimpy bikinis that always seemed the standard on the big sailboats out of Montreal. In many ways, it was a perfect place to spend a youthful day.

But even then, more than three decades ago, there was a very real sense that the lake was kind of ill. St. Albans Bay was choked with weeds back then, and each summer there’d be algae blooms that left our boat wake a wave of greenish goop. I remember itching and sneezing after a day at the beach, something my mother blamed on me being allergic to “all that junk in the water.”

As I grew older, and fishing with my father and brother became more important than building miniature castles on the beach, it became increasingly apparent just how unhealthy the lake really was.

When I entered high school in the early 1980s, for instance, the town of St. Albans began spraying copper sulfate into the bay in an effort to curb weed growth. My parents, never really politically active, focused many a dinner conversation on the new sewage treatment plant that needed to be built to stop phosphorous discharge. Lamprey wounds started showing up on the salmon we caught.

So even in the 1970s and 1980s, when I was a youngster unsure of the complete size and scope of Lake Champlain’s complex maladies, there still was this cloud of doom that I was aware of. My family, as regular users of Lake Champlain, knew the lake was sick.

These days, I still visit that little cove on the west side of Burton Island, sometimes with my own kids. We still fish and barbecue. And the lake is still sick – in many ways, worse than ever before.

When I was young, for instance, when we fished for salmon, our lure and fly patterns were all meant to imitate rainbow smelt. These days the hot patterns look like alewives, one of several invasive fish species that could alter the food web in the lake.

In my youth, a small number of businessmen started a commercial eel fishery on Lake Champlain, using electroshocking methods to bring the slithery creatures to the boat. These days, the American eel population in Lake Champlain is practically non-existent.

When my cousins and I frolicked on the beach and in the water as kids, we dealt only occasionally with a foot cut open by a clamshell. We never had to deal with zebra mussels, which have now invaded now the lake.

Double-crested Cormorants? Those big birds that have turned a number of small Lake Champlain islands into a leafless, virtually lifeless moonscape with copious amounts of guano? Yeah, we never had those when I was young, either.

When I went fishing with my brother, father and mother we often used live bait, usually creek chubs or crayfish we caught in a minnow trap placed in a small stream just down the dirt road from our house. These days, anglers can use only certified bait, bought from a certified bait dealer, for fear that the fish-killing VHS virus might be accidentally introduced.

And while the “junk in the water” might have made me sneeze and my eyes puffy, as a kid I never had to deal with the blue-green algae blooms of today – blooms that can kill pets, deplete oxygen and make people sick.

I know much has been studied and some progress has been made in an attempt to keep the big lake healthy, but the fact that Lake Champlain in 2009 is measurably worse than the Lake Champlain in 1979 weighs heavily on my mind.

I can come to terms with losing my childhood innocence – everybody grows up – but it’ll be very hard for me to watch us all lose this lake. Like so many other Vermonters, it has helped shape who I am and what I do.

Matt Crawford is a former outdoor and environmental writer for The Burlington Free Press. He works at Waitsfield-based Pale Morning Media, a public relations firm specializing in outdoor recreation.
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<tr>
<td><strong>Length of Lake</strong></td>
<td><strong>120 miles</strong></td>
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<tr>
<td><strong>Width at widest part</strong></td>
<td><strong>12 miles</strong></td>
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<tr>
<td><strong>Depth at deepest point</strong></td>
<td><strong>400 feet</strong></td>
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<tr>
<td><strong>Average depth</strong></td>
<td><strong>64 feet</strong></td>
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<td><strong>Acres of wetlands in Champlain Basin</strong></td>
<td><strong>300,000 acres</strong></td>
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<tr>
<td><strong>Age</strong></td>
<td><strong>10,000 years</strong></td>
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<tr>
<td><strong>Number of dogs that have died in recent memory from exposure to blue green algae</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td><strong>Average volume of water</strong></td>
<td><strong>6.8 quadrillion gallons</strong></td>
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<tr>
<td><strong>Volume of water in an Olympic size swimming pool</strong></td>
<td><strong>660,253.09 gallons</strong></td>
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<td><strong>Portion of Lake Champlain basin in Vermont</strong></td>
<td></td>
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<tr>
<td>Vermont</td>
<td><strong>56 percent</strong></td>
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<tr>
<td>New York</td>
<td><strong>37 percent</strong></td>
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<tr>
<td>Quebec</td>
<td><strong>7 percent</strong></td>
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<tr>
<td><strong>Proportion of phosphorus flowing into the lake from point sources (mainly sewage treatment plants)</strong></td>
<td><strong>10 percent</strong></td>
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<td>(remainder is non-point source pollution or runoff from the land)</td>
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<td><strong>Of non-point source, proportion from</strong></td>
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<tr>
<td>agricultural lands</td>
<td><strong>38 percent</strong></td>
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<tr>
<td>urban and developed land</td>
<td><strong>46 percent</strong></td>
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<tr>
<td>forestland</td>
<td><strong>15 percent</strong></td>
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<tr>
<td><strong>Number of fish species in Lake Champlain</strong></td>
<td><strong>81</strong></td>
</tr>
<tr>
<td><strong>Number of fish species threatened/endangered (Vermont, New York, or federally)</strong></td>
<td><strong>8</strong></td>
</tr>
<tr>
<td><strong>Average date the lake freezes entirely across its widest part</strong></td>
<td><strong>February 12</strong></td>
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<tr>
<td><strong>Number of public or commercial beaches on the lake’s shore</strong></td>
<td><strong>54</strong></td>
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Compiled by VNRC and Conor Rice.

Sources: Lake Champlain Basin Program, lcbp.org; www.geobytes.com/CityDistanceTool.htm?loadpage, Wikipedia; published reports.
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**SUSTAINABLE COMMUNITIES UPDATE**

VNRC continues to support Vermont’s oft-stated – and frequently ignored – goal of maintaining Vermont’s historic settlement pattern of vital downtowns and compact villages surrounded by working landscapes and wild lands. This is a never-ending task, as the economic and cultural forces that have hollowed out American towns and cities and paved over farmland around the nation continue to exert pressure in Vermont.

“The land use and development decisions that Vermont makes today will determine how – and if – we’ll have access to jobs, goods and services in the future, so it pays to plan ahead,” says Brian Shupe, VNRC’s sustainable communities director. “Bad land use planning not only forces us into our cars more, but it also chews up habitat and our working lands,” he said. “We believe Vermonters want an alternative.”

In 2006, when the Legislature passed the growth centers law, it created a new tool to help Vermont communities plan for smart growth. Under that program, municipalities that adopt policies to steer new development into well-planned, compact neighborhoods adjacent to village centers and downtowns – and take steps to protect the surrounding landscape – may apply for state designation and receive various incentives. VNRC has been actively involved in several of these applications to ensure they meet the intent of the law: that growth centers are compact, will not undermine the economic vitality of existing downtowns, and that new development will be designed in accordance with smart growth principles. More broadly, VNRC is also working with planners and other smart growth advocates to improve the way the growth center designation process works.

VNRC has also been working toward a better transportation system in Vermont – a system that’s more energy efficient, creates less pollution, works better for Vermonters and doesn’t promote sprawling development patterns.

Recently, VNRC has been collaborating with the Vermont Chapter of the American Association of Retired Persons (AARP) to turn key ideas identified through their ‘Transporting the Public’ project into reality. VNRC is looking to further this exciting partnership, build on the promising framework AARP has created, and foster a broad-based coalition to begin rethinking and reshaping strategies that move people and goods around the state in the most efficient and cost effective manner.

VNRC is also helping towns, at their request, to improve their rural working landscape and natural resource protections.

For example, VNRC recently assisted the town of Hinesburg to develop creative options for better managing housing densities in the rural parts of the community. The town’s planning commission recently completed a comprehensive growth center planning initiative, and turned its attention to maintaining the rural character of the surrounding countryside. VNRC also worked with the Warren Conservation Commission to suggest options for integrating a recent wildlife habitat inventory into the town’s plan and zoning bylaws, and to strengthen the bylaws to address concerns stemming from a recent Vermont Supreme Court case, In re: JAM Golf LLC v. City of South Burlington. Finally, when the Vermont Land Trust decided to explore the option of transferring ownership of the King Farm in Woodstock to the Marsh-Billings-Rockefeller National Historic Park, they tapped VNRC to coordinate a neighbor outreach effort and to facilitate a community discussion around how the possible transfer could be accomplished in a manner that best serves the community’s conservation, recreation and education goals.

VNRC will continue, on all these fronts and more, to promote forward-thinking land use policy.
Protecting Vermont’s water – whether it’s in the ground, in wetlands or coursing through our streams and into our lakes – continues to be a big focus of VNRC’s work.

With VNRC’s help, the Legislature more than a year ago enacted a law declaring groundwater – the source of drinking water for about two-thirds of Vermonters – to be a public resource. Now, VNRC is working hard to assure the law is properly implemented by advocating for strong and clear rules that detail how the law will be carried out.

In addition, VNRC is also offering to help communities to plan for the future use of their groundwater resources.

“We will continue to push hard in our groundwater work to be sure there is plenty of this invaluable resource for future generations of Vermonters,” said Jon Groveman, Water Program Director.

On another water front, VNRC spent more than two years working with a variety of interest groups including the Vermont Realtors Association, the Vermont Forest Products Association, the Agency of Natural Resources and others, to develop new wetlands policy for the state. The only environmental group involved in these negotiations, VNRC helped forge protective legislation that lawmakers enacted this spring.

The new law will have the effect, over time, of increasing the number of wetlands protected in Vermont by making it easier for the state and even local communities to get wetlands on official state maps. An associated administrative rule is expected to be developed in the coming months and VNRC will be once again advocating for strong and prudent requirements for protecting wetlands, which are nature’s water filters, flood control devices, and homes to birds, fish, amphibians and other life.

VNRC is also working to assure that the state of Vermont begins to adhere to the federally required anti-degradation policy for our waters. ANR has failed to implement the requirement and the result has been unavoidable pollution running into the Lake Champlain basin, increased pollution of our highest quality waters as well as the watersheds of Vermont’s 16 stormwater impaired watersheds.

VNRC will continue our advocacy and vigilance to protect this increasingly threatened, vital resource.

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**VNRC v. Wal-Mart: The David and Goliath Story**

The battle over a proposed Wal-Mart in a cornfield outside of downtown St. Albans continues in Environmental Court and after an intense, three-day trial this past summer, both sides continue to file legal papers. A decision in the case is still months away.

The 16-year St. Albans Wal-Mart fight may be the longest-running battle against Wal-Mart anywhere in the country, according to a recent Boston Sunday Globe story on the controversy.

The debate over Wal-Mart in St Albans, as well as VNRC’s participation, dates back to the early 1990s when the Environmental Board denied Wal-Mart a permit to build a 100,000 sq. ft. store.

Then, in 2004 Wal-Mart applied for local permits to construct a bigger, 160,000-square-foot store on the same site. At that time, VNRC, along with a local citizens group and the Preservation Trust

Continued on page 9
**Forest and Biodiversity Update**

VNRC’s Forest and Biodiversity Program has continued its focus on several projects aimed at reducing the fragmentation and parcelization of Vermont’s forestland and wildlife habitat.

VNRC will begin researching and analyzing subdivision and parcelization trends across Vermont as part of a new project funded through a grant to VNRC from the Northeastern States Research Cooperative. VNRC will partner with Deb Brighton of Vermont Family Forests to create a database of subdivision trends in every city and town over the last six years. The database will be a valuable tool for tracking subdivision trends over time in Vermont, which will help planners, town governments and resource managers in understanding the degree to which Vermont’s landscape is remaining viable for wildlife habitat, forestry, watershed protection, carbon sequestration, and other important functions.

VNRC has also begun working with the Vermont Fish and Wildlife Department to analyze how municipalities handle wildlife conservation in town plans and zoning and subdivision bylaws. VNRC will be collecting detailed information from every town, such as the degree to which wildlife habitat is mapped and whether towns have standards for protecting significant wildlife habitat. This information is critical in light of the recent Vermont Supreme Court decision, In re: JAM Golf LLC v. City of South Burlington, which signals that towns must, in their zoning bylaws, define with specificity the wildlife resources that should be protected. The results of this study will be compared to a similar initiative that was performed in 2000 and trend information and analysis will be packaged into a final report.

To better foster wildlife conservation in Vermont, VNRC has also been working with the National Wildlife Federation and the Vermont Fish and Wildlife Department to conserve key wildlife corridors and crossings along the Green Mountain corridor through a project called “Critical Paths for Wildlife.” VNRC and the other entities recently completed a final report, which identifies 11 priority wildlife crossings along the Green Mountain corridor. The report provides background information on the species using the crossings, the status of lands within the crossings, and detailed on-the-ground management and land use recommendations for reducing wildlife deaths and improving habitat conservation within the crossing areas. VNRC is now helping citizen groups and planning commissions where the crossings are located to implement the recommendations of the report. The project is being conducted to support implementation of Vermont’s Wildlife Action Plan with a grant from the Wildlife Conservation Society through its Wildlife Action Opportunities Fund. Support to establish the Wildlife Action Opportunities Fund was provided by the Doris Duke Charitable Foundation.

**Environmentalists, Including VNRC, Win Federal Wildlife Case**

This year in a federal court case, VNRC helped reverse a loosening of federal wildlife protection rules.

The U.S. District Court for the Northern District of California on June 30 overturned Bush Administration rules governing management of America’s 155 national forests and 20 national grasslands. The rules, issued April 21, 2008, had repealed key protections for national forests mandated under the National Forest Management Act (NFMA).

The ruling came in response to a lawsuit filed by a coalition of conservation groups — including the Vermont Natural Resources Council — represented by Earthjustice.

The rules had eliminated mandatory protections requiring the national forests to be managed to guarantee viable populations of all wildlife species. The rules also had sought to reduce environmental review and public participation in decisions about the management of our public forests.

“The effect of the ruling in Vermont is that important safeguards will continue to be maintained on the Green Mountain National Forest,” according to Jamey Fidel, forest and biodiversity program director at Vermont Natural Resources Council. “Fortunately, and to their credit, the Green Mountain National Forest revised its forest plan using an earlier version of the planning regulations, which includes the requirement to maintain viable populations of wildlife,” Fidel said. “The ruling helps ensure that this bedrock principle of national forest management will continue on the Green Mountain National Forest and potentially National Forests across the United States where the weaker regulations were being followed.”

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VNRC continues its work as one of the lead support organizations in the Vermont Energy and Climate Action Network (VECAN), the growing network of motivated town energy committees who are putting their time, knowledge and creativity to work on energy and climate change issues.

From various energy-saving, renewable generating efforts to longer-term local energy planning, community energy committees are helping to lower their community’s energy consumption while reducing the state’s carbon footprint. It is incredibly exciting stuff. Last year, there were about 60 community energy committees. Now there are about 80.

VNRC and our VECAN partners support the efforts of these primarily volunteer groups in many ways, including facilitating training, networking and resource sharing opportunities. From regional energy network gatherings to an annual statewide conference (December 5, this year) these events are valuable venues for fostering collaboration and sharing ideas and strategies.

VECAN partners also provide direct, one-on-one technical support to energy committees. VNRC in particular is putting its longstanding community planning and land use expertise to work by helping communities improve and expand municipal planning to save energy and cut global warming pollution. By integrating innovative energy policies with the transportation, public facility and land use elements of town plans, and ensuring those plans are implemented, communities can have a significant impact on how energy is created and consumed locally.

What might that look like in a municipal plan? Aggressive efficiency codes. Community-scale renewable energy facilities on town property. Bike, pedestrian and transit options. High-density, walkable housing and work opportunities. Protected farmlands and forests for the production of food and fiber and the ecological services provided by Vermont’s “green infrastructure.”

To further this important work, VNRC is creating a community energy planning and implementation guidebook. This ‘how-to’ publication will help communities effectively incorporate energy efficiency, conservation and renewable generation more into local plans. This guidebook will also serve as a useful companion piece to the ‘Renewable Energy Atlas of Vermont,’ a web- and GIS-based data source developed by the Vermont Sustainable Jobs Fund that will, upon completion, help people identify opportunities for wind, solar, biomass and other renewables in their community.

The goal of both of these efforts is to help Vermonters make informed, forward-looking decisions and take advantage of efficiency and generation opportunities that exist in their community.

Forest and Biodiversity Update

This past session, VNRC lobbied in support of legislation to create a biomass working group to identify policies to facilitate wood biomass energy in Vermont, while ensuring that it is done in an efficient and sustainable manner.

Jamey Fidel, VNRC’s Forest and Biodiversity Program Director, was appointed to the working group alongside representatives from the biomass energy field, foresters, representatives from the forest products industry, government officials, and legislators.

“With the increasing pressure to utilize our forests for biomass energy, we need to be mindful about maintaining forest health” according to Fidel. “The working group provides an opportunity to craft state policy that ensures that our forests contribute to renewable energy demands while continuing to provide numerous benefits, including maintaining water quality, soil productivity, habitat for wildlife and the forest’s ability to sequester and store carbon to mitigate climate change.”

Rep. Chris Bray of the House Agriculture Committee was key in moving the legislation forward so that it became law.
Beyond VNRC’s on-the-ground energy efforts, we continue to support state and federal energy and climate action as well. In Vermont this past spring, VNRC helped turn a strong piece of renewable energy legislation into law – Act 45. Vermont is now the first state in the nation to have enabled a “standard offer contract,” otherwise known as a “feed in tariff,” for renewable energy development. The goal of the standard offer is to spur more renewable energy in Vermont by requiring utilities to pay renewable energy generators a higher price for their clean, green power.

Another promising provision in Act 45 allows cities and towns to establish “clean energy assessment districts.” Backed by the bonding authority of their municipality, Vermonters who live in towns that have created these districts can choose to borrow funds to make energy improvements – like better insulating their homes or installing solar panels on their roofs – and repay that through a special “assessment” tacked onto their property tax bill. The assessment is paid back over time – a maximum of 20 years – through the energy savings of the project.

As Vermonters continue to innovate on energy and climate action, efforts at the national level are finally heating up. Congress is debating a bill designed to lower dangerous carbon emissions and fundamentally redesign how the nation makes and uses energy. The “American Clean Energy and Security” bill – ACES – passed the House early this summer and is now being vigorously debated in the Senate. The goal? Pass a good bill before President Obama meets world leaders at the United Nations climate talks in Copenhagen in early December.

Vermont’s congressional delegation remains solid in their commitment to a strong bill, but there is considerable disagreement over how best to reduce the nation’s greenhouse gas footprint and move away from fossil fuels toward renewable energy and conservation. With help from our national affiliate, the National Wildlife Federation, VNRC is following this pivotal conversation and pushing hard for an aggressive bill that reflects the policies, programs and priorities needed to meet the serious challenges ahead.

Stay tuned on these fronts, find out more and get involved in these important issues. Contact VNRC’s Energy Team – Johanna Miller and Brian Shupe – at 802-223-2328 or visit www.vnrc.org.

Wal-mart continued from page 6

of Vermont, suggested a more reasonable, less damaging solution: a smaller, downtown store. But Wal-Mart wouldn’t entertain the idea and pursued its out-of-town big box plan. The citizens, with the help of VNRC, decided to draw a line in the sand, opposing what would be a poorly sited, oversized store.

“A courageous and dogged group of neighbors who want to see downtown St. Albans prosper into the future and who don’t want irreplaceable cropland paved have worked with VNRC for years on this,” said Jon Groveman the VNRC attorney who is handling the case. “This has truly been a ‘David v. Goliath’ fight. It’s a testament to these amazing citizens that they have persisted in this fight for what they, and we, believe is right.”

During the trial, VNRC and the citizens group Northwest Citizens for Responsible Growth, argued that Wal-Mart’s studies of the economic impact were based on inaccurate assumptions and a flawed economic model that failed to consider the sprawl that Wal-Mart will attract. VNRC also argued that Wal-Mart should have performed a more meaningful and accurate analysis of traffic impacts, one that would take into account factors such as backups of vehicles at traffic lights. Finally, VNRC argued that the store’s destruction of prime agricultural soils would violate Act 250 and would not conform to the 2006 Growth Center law, which VNRC fought hard for, and that the Wal-Mart would be incompatible with a local working farm – the Hudak Farm – which is located a third of a mile from the proposed big box store.

Like other large developers, Wal-Mart is required to get Agency of Natural Resources stormwater permits outlining how they would deal with erosion and sedimentation during construction and long-term rain and snow runoff from the roof and parking lot should the store get built. VNRC made specific demands for stormwater protection to Wal-Mart, which the retailer met. The result is an unprecedented agreement that would legally protect water quality in nearby streams that run into Lake Champlain. “The Wal-Mart stormwater settlement is a model,” said Groveman. “It’s stringent and protective, and VNRC considers this a major success not only in this case but for water quality across Vermont.”

Despite the lengthy, expensive, complicated and controversial process – and despite important victories like the stormwater settlement – VNRC remains committed to stopping this shortsighted idea.

“It’s a line in the sand that means something very real for our state,” noted VNRC’s Deputy Director Steve Holmes, “and there’s a better way to provide the affordable goods people are clamoring for without the high costs this store will exact. We support development that complements, not erodes a community’s character, boosts the local economy and protects and enhances Vermont’s working landscape,” he said. “This project is the antithesis of that. And we continue to fight for that reason.”
In a poetic confluence of commemorations, Vermonters last summer celebrated two historic journeys of exploration and discovery: the 400th anniversary of Samuel de Champlain’s 1609 voyage into what we now call Lake Champlain, and the 40th anniversary of the Apollo 11 mission to the moon in July 1969. The iconic photograph from Apollo 11 is of a bright blue sphere in the void of space – the planet Earth, seen by humans for the first time as a celestial body. And the lesson was clear to all: it is one planet, it is our planet, it is finite and it is in need of loving stewardship.
Given the nature of watersheds, we have made things hard for Lake Champlain in the 400 years since its so-called discovery.

A similar view, and lesson, can be had for Lake Champlain. The summit of any of the mountains overlooking the Champlain Valley reveals the lake, too, to be finite, vulnerable, beautiful, and in the final analysis, our responsibility. For we are the inheritors of George Perkins Marsh’s revelation when, as a boy, the pioneering 19th century naturalist accompanied his father on a horse-and-buggy drive near Woodstock, Vermont.

“He stopped his horse on top of a steep hill,” Marsh recalled in his 1864 volume, *Man and Nature*, “bade me notice how the water there flowed in different directions, and told me such a point was called a ‘watershed.’”

Partly thanks to Marsh, we now know a thing or two about watersheds. VNRC has advocated comprehensive watershed planning because every square centimeter of surface water is affected by conditions upstream or uphill. Lake Champlain’s watershed covers some 8,200 square miles, about 60 percent of it in Vermont. In intricate, indirect patterns, waterways tiny and large, surface and subterranean, seasonal and constant, near the lake and surprisingly far from it in towns like Cabot and Greensboro, drain toward and finally into the basin, carrying in their flow virtually anything not affixed to the earth.

Given the nature of watersheds, we have made things hard for Lake Champlain in the 400 years since its so-called discovery. “Where we have water-quality problems in Lake Champlain,” says VNRC Staff Scientist Kim Greenwood, “it’s an implication of the choices we’ve made about how we live on the land.”

We have not always understood those implications. In the late 1800s Vermont clear cut its forests for the logging, potash, and sheep industries. Ben Falk, of Moretown – founder of Whole Systems Design LLC, which specializes in the development of sustainable “human habitats” – has made a study of that era and its consequences.

“Overgrazing sparsely vegetated, sloping land yielded predictable results: massive transport of topsoil from the hillsides into Vermont’s great storm water retention basin – Lake Champlain,” Falk wrote in an article for *Vermont Commons*, calculating the loss at some 200 million dump truck-loads of dirt. “Strangely, few have noticed the missing topsoil – except organic farmers and scuba divers in Lake Champlain, who have reported depositional zones of soil 10-to-30-feet deep across wide areas of the lake bottom.”

Anglers have noticed, too.

“The sediment is a pollutant,” says James Ehlers, executive director of Lake Champlain International, Inc., of Colchester, a conservation organization that focuses on fisheries specific to the Lake Champlain watershed. Besides introducing harmful nutrients, sediment undermines fish reproduction by filling the spaces between cobble – small stones on the lake bed, where eggs can safely develop into fry. Some argue that the Great Soil Erosion of 100 years is still transpiring, as the soil washed from yesterday’s barren landscape continues its slow journey toward Champlain.

In light of this unwitting abuse of the lake, VNRC and other organizations see the quadricentennial as a teachable moment. It focuses our attention on what’s at stake in the lake. With 435 square miles of surface area and
570 miles of shoreline, Lake Champlain provides drinking water for scores of Vermont communities; there’s camping, swimming, and recreation at 13 state parks; half a dozen summer camps; fishing and boating from 33 access areas; yachting and bustling marinas. The lake moderates our weather, and its broad, flat expanse allows the wind to disperse air pollutants.

Vermont businesses trade on the image and attractions of Lake Champlain. Inns, hotels, and restaurants snuggle up to its shores. “It’s a significant part of our brand when we’re marketing the region to people who are arranging meetings or looking to relocate,” says Tim Shay, vice president of the Lake Champlain Regional Chamber of Commerce.

The Lake Champlain Basin Program (LCBP) quantifies some of Champlain’s economic benefits to Vermont: an estimated $2.7 billion in tourist revenues; fishing expenditures (for the basin as a whole) totaling $205 million. Dive shops, and educational and historical centers attract enthusiasts who are drawn to the 300-plus intact shipwrecks that are preserved in the lake’s favorable environment like mastodons in a glacier.

The LCBP’s 2009 Lake Champlain Action Plan reports that the 1909 tercentennial was a major event, attracting the president of the United States and “more than 65,000 [people].” But there were no blue-green algae blooms in Mississquoi Bay and the South Lake in 1909; no mercury advisories for trout, walleye, and bass; no zebra mussels clumped treacherously on rocks and around drinking-water intakes.

There were, in short, no clear warning signs of the vulnerability of Lake Champlain, no riveting Apollo 11 moment to capture our dependency on it and its dependency on us.

“People certainly loved the lake, but it was still largely a place to dump stuff,” says Art Cohn, director of the Lake Champlain Maritime Museum at Basin Harbor. “In 2009 we have a much higher sensitivity to the conditions of the lake, which allows us to ask ourselves what kind of a lake we want in 2109. The better we take care of this extraordinary place that’s been left to us, the better our world will be.”

“A dock full of empty wheelchairs”

The Community Sailing Center in Burlington sees Lake Champlain as a resource for achieving its vision of a better world. The Sailing Center’s mission is “to encourage and celebrate the responsible use and long-term stewardship of Lake Champlain by fostering educational and recreational opportunities for all members of our community.” It partners with 35 nonprofits, VNRC among them, to involve people with the lake – for its benefit and their own.

“The most important work we do, in my opinion,” says Kate Neubauer, director of the Community Sailing Center, “is to provide access to Lake Champlain for people who don’t otherwise have the opportunity. This includes at-risk youth from the King Street Youth Center...”
– kids who live less than a mile from the lake and have never been on it. The hope is that they can go back and look at things in their life in a way they’ve never looked at them before. Sailing teaches them self-confidence and team-building skills, the inherent qualities and lessons you learn while you’re on the lake.”

The center owns more than 60 boats, with multiple programs for using them, Neubauer continues. “We have a boat built specifically for people with physical disabilities, and they can sail it themselves. The greatest thing is to see a dock full of empty wheelchairs.”

New this year is the Community Sailing Center’s WAVES initiative (an acronym for “water, access, vitality, education, and stewardship”). It infuses every Sailing Center program with a component of environmental education, emphasizing the effects of human activity on water quality. Neubauer would like everyone who comes into contact with the Community Sailing Center to become, on some level, a lake steward.

“I don’t think we can afford not to have a clean lake.”
— Kate Neubauer, Community Sailing Center

Rayne Herzog, owner/director of Race Vermont, racevermont.com

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“I don’t think we can afford not to have a clean lake,” she explains. “We want people to fully understand the opportunity that is right in front of them – this beautiful freshwater lake. It’s the reason why we are starting to partner with organizations like VNRC.”

Rayne Herzog is the owner and director of Race Vermont, a multi-sport event coordinator sponsoring three “sprint triathlons” each summer and an Olympic-scale event in September. Competitions feature a swimming component: 500 yards for the sprints, and 0.9 miles for September’s “Greater Burlington Triathlon.” Events typically draw 125-300 participants.

“I just think that Lake Champlain is a wonderful resource that we have, and it’s exciting to see so many people making use of it,” says Herzog. “But I’m cognizant that the lake has issues.”

The swim leg of the sprint triathlons takes place at Shelburne Beach, which has a history of occasional coliform bacteria violations. The LCBP’s authoritative “State of the Lake” report for 2008 indicates that the beach was closed four times in 2006 and once in 2007.

But it’s zebra mussels that concern Herzog the most. Their sharp edges can cut swimmers’ feet. It has happened to Herzog. “We have medical attention on site, and we’ve never had anybody really get hurt,” he says. “But it’s a nuisance.”

A sequence of challenges

Interestingly, Jonathan Eddy of Burlington’s Waterfront Diving Center says there’s an upside to zebra mussels: they filter suspended particles from the water, improving visibility.

But they’re a mixed blessing, at best. Eddy’s business picked up as Lake Champlain became renowned for its submerged shipwrecks, but the insidious creatures that clear the water cluster upon the very objects of the divers’ curiosity.

“They obscure the details of the shipwrecks,” says Eddy, who has been a volunteer water-quality monitor for the Vermont Department of Environmental Conservation for 15 years. “Some are totally covered.”

The invasive mollusks may pose more threat to Lake Champlain’s historical preserve than Eddy realizes. Inspired by the 1997 discovery of the Revolutionary War gunboat Spitfire, the Lake Champlain Maritime Museum, the Navy Historical Center in Washington, D.C., and UVM’s School of Natural Resources are studying the preservation of historical artifacts in an underwater environment.

“We’ve been looking at various issues,” says the museum’s Art Cohn. “What could we do
with this boat? What are the threats to the site? We launched a new zebra mussel study, and our preliminary findings are not good. In addition to the added weight of a zebra mussel colony, there’s also a process that facilitates the growth of sulfur-reducing bacteria. That would degrade the iron fastenings at a much more rapid rate. You could hypothesize that these ships literally would not hold together.”

For the moment, despite a cascade of water-quality issues, sport fishing is holding its own in Champlain, according to Lake Champlain International’s James Ehlers.

“It’s not just average fishing we have,” Ehlers says enthusiastically. “It’s phenomenal fishing.”

A hallmark is the diversity of species – including salmon, walleye, northern pike, largemouth and smallmouth bass – accessible in various fishing grounds, which is why fishing remains a moneymaker for the state, despite mercury advisories for certain species. Vermont’s share of the $205 million annual recreational revenue from the basin is on a par with the maple sugar industry. And like maple sugaring, fishing spreads the wealth around: rural, remote boat launches allow anglers to “get away from it all.”

But Ehlers keeps one eye on our lake and another on distant waters, where alarming pollution problems could foretell Champlain’s fate if we’re caught napping. In the Potomac River, he says, biologists discovered that 80 percent of male smallmouth bass are carrying eggs. Scientists theorize it’s the result of estrogen in the water, derived, perhaps, from pharmaceuticals. There’s no such finding here yet, but pharmaceuticals are among a variety of substances the Lake Champlain Basin Program calls “new-generation contaminants” already detected in some Champlain tributaries.

Ehlers’ view is that each generation of lake guardians faces its own issues. Vermont in the 1970s and ’80s eliminated straight-piping of human and industrial wastes and mandated effective sewage-treatment technologies. Attention then turned to non-point-source pollution. And for conservationists, the new-generation contaminants (with their shocking implications), could be the next frontier.

“Sister Water; she is . . . precious and pure.” – Francis of Assisi

Recreation and tourism are all well and good, but for thousands of Vermonters Lake Champlain serves a more basic function: it provides their drinking water. From Franklin and Grand Isle counties to southern Addison County, lake-based municipal water districts have formed, each with its own colorful history.

The Tri-Town Water District of Bridport, Shoreham, and Addison came into being when the Champlain Valley was emerging from a severe drought in the mid-1960s, and people were eager for water that was plentiful, reliable – and palatable.

“Everyone was drinking out of cisterns and ponds,” says Ed Devino, superintendent of the district that pumps and filters 900,000 gallons a day. “As far as wells, the groundwater was absolutely terrible, full of sulfur if you could get it at all.”

Back then, Devino claims, the Tri-Town District was one of the largest municipal water systems in the country – not in terms of its users (there are now about 1,600), but because the homes, stores, farms, and schools of the three rural towns are connected by 500 miles of pipe, enough to stretch from Shoreham to Cincinnati, Ohio.

The Champlain Water District, based in South Burlington, is now the largest drinking-water entity tapping into the lake. It serves 68,000 consumers in South Burlington, Shelburne, Williston, Essex Junction (Village and Town), Colchester, Jericho, the Town of Milton, and the City of Winooski. General Manager Jim Fay says the consolidated district produces about nine million gallons of drinking water daily – somewhat more than Burlington, which also draws from the lake.

The Champlain district came together in
the 1960s as the Chittenden County towns anticipated growth and began to look toward their long-term needs. Groundwater resources were inadequate, and high counts of iron and manganese made it unappetizing.

The district has invested heavily, and planned conscientiously, for providing drinking water from an admittedly compromised source.

“We start with an intake pipe a half-mile out into Lake Champlain in 75 feet of water,” says Fay, “a very protected source that ensures that runoff is not coming down into the depth of the intake. That’s very important.”

Champlain uses a multimedia filtration system (anthracite sand and garnet) – but before the water gets that far it goes through “absorption clarification pretreatment.” Fay says the district was the first in the nation to add that pretreatment technology, which resulted in the Champlain Water District receiving an Excellence in Water Treatment Award in 1999 from the Partnership for Safe Water.

The infrastructure – pipes, treatment equipment, pumping stations and storage tanks – represents a $27 million investment and requires a $5.2 million annual operating budget. Given those costs, Fay would hate to see lake conditions deteriorate. “Maintaining the present quality of Lake Champlain,” he says, “is very important to our mission.”

Farther north, the Grand Isle Consolidated Water District is one of a handful of entities serving Vermont’s picturesque island communities. Water Commissioner Bill Ryan says the district was knit together in the early 1990s, after the state began enforcing stricter surface water rules. The existing systems were holdovers from a simpler time; one was owned by a dairy co-op that allowed 40 households to attach to it. “Once the state’s surface water regulations came through, all of them were out of compliance,” says Ryan. “They were small systems, and the rule required fairly large capital investment for filtration.”

Ryan’s district reduced its start-up costs by forging an agreement with the state to tap into the water intake for a new fish hatchery. Twelve years later, he and his fellow commissioners are keenly aware of degradation of the lake’s waters, not because they taste it out of the tap (“Our water is excellent,” Ryan says), but because testing and treatment requirements have escalated. Ryan
believes farmers are disproportionately blamed for phosphorous accumulation in Champlain; he contends that the water quality has suffered more from changes in our lives on shore. His wife’s family owns a lakeside summer camp in Georgia, and Ryan has seen many of the surrounding camps converted to year-round residences.

“No matter how you improve your septic rules, that’s a lot of pressure on the lake. Years ago we never thought about how clean our water was; just turn on the spigot and it’s going to be fine. But now our costs are going up and up for the water district. It is a public entity, and we’re concerned about the public health.”

**VNRC: It starts with the land**

VNRC agrees with Bill Ryan: saving Lake Champlain is about living more conscientiously on the land.

It’s true that we have little control over how power plants in Ohio generate their electricity, and Vermont’s responses to destructive invasive species – from milfoil to mollusks to alewives – have yielded mixed results. But something we can do is aggressively combat phosphorous loading.

In St. Albans, VNRC and the Northwest Citizens for Responsible Growth have waged a sustained campaign against the proposed construction of a 160,000-square-foot Wal-Mart in a former cornfield, and while the objective is to combat sprawl and preserve the locally based economy, the campaign is every bit as much about protecting Lake Champlain. To VNRC Water Program Director Jon Groveman’s astonishment, Wal-Mart has proven more amenable to lake-protection measures than Vermont’s Agency of Natural Resources.

“You’ve got farms in Franklin County, all around the lake, some better-managed than others,” says Groveman. “But the environmental and regulatory communities know that, acre for acre, paved land is more detrimental to water quality than agricultural land.”

A 13-mile stream – the Stevens Brook – passes through the proposed Wal-Mart site, eventually reaching the lake. And it’s polluted. But despite laws meant to protect our waterways, the ANR agreed to issue a storm water permit for Wal-Mart’s project – because the degradation is from agricultural runoff, not storm water.

Groveman can’t fathom it. “The lake doesn’t know the difference between farmland nutrients...
and storm water nutrients! All it knows is that it can’t take any more. This is a double whammy: You lose productive farmland and you get more pollution.”

VNRC took the matter to the Vermont Environmental Court, and in July Wal-Mart agreed to a settlement. The company promised to offset pollution elsewhere in the brook, equivalent to the pollution it would cause by constructing and operating its proposed store. (The offsets will come from drainage improvements at a local farm, which will ameliorate serious agricultural pollution that reaches the lake.)

In urban areas, state law requires developers who want a permit to discharge into a storm water-impaired waterway to find a way to offset the pollution that will result from their project's operation. The Wal-Mart agreement is the first to apply that urban requirement to a rural setting, and goes the law one better by offsetting construction-related pollution as well.

“We’re still vigorously opposing the Wal-Mart project on traffic impacts, sprawl, and violations of Vermont’s 2006 Growth Center law,” Groveman insists. “Nevertheless, the storm water agreement is a model. It is stringent and protective, and we consider this a major success not only in this case but for water quality across Vermont.”

To Groveman’s consternation, however, the ANR has given no indication that it will alter its apparent conviction that pollution from storm water runoff is somehow irrelevant to a brook encumbered by agricultural pollution. Statewide riparian-buffer requirements that VNRC has advocated in recent years would help protective waterways from both hazards. VNRC also fought successfully against proposed changes to Vermont’s septic rules that would have allowed more pollution into the lake.

Fortunately, the Legislature in 2009 saw the merits of VNRC’s arguments in another area – the regulation of wetlands – when it passed H.447, which will lead to the protection of more of these valuable natural areas. Wetlands absorb waters as they pass through the watershed, filtering them and diminishing their eventual effect upon receiving bodies like Lake Champlain.

H. 447 did away with a hitch in Vermont’s wetlands regulations. The hitch was that if a wetland wasn’t catalogued and mapped when the state conducted a comprehensive wetlands survey in 1990, it was considered not to exist. Thus it wasn’t subject to regulation, and was harder for advocates to protect from destruction or development.

“A process existed to add wetlands,” explains VNRC’s Greenwood, who was the only environmental advocate (and VNRC the only environmental organization) pursuing a change in the regulation. “But between 1989 and 2009 the state never proposed to add any. Under the new law, if an unlisted area is similar in size and characteristics to a wetland that is on the map, and is performing the natural functions of a wetland, it can be protected. Plus, the maps are going to be updated.”

“We need to stem the tide of wetland loss,” Groveman insists. “That definitely happened during Chittenden County’s development, and the lake has suffered for it.”

As have we. For centuries Vermonters conducted their lives as if it didn’t matter to Lake Champlain what we did on the land – and even if it did matter to the lake, it didn’t really matter to us. Consequently, we have milfoil and algae, coliform and mercury, and potentially pharmaceuticals in the water. And it does matter to us – economically, aesthetically, and functionally.

What we need is an Apollo 11 vision of Lake Champlain, seeing the water and the land and the people around it. We have learned that what we do to the environment, the environment eventually does back to us. It’s time to love Lake Champlain.
Paul Madden of Sheldon is a VNRC member and executive director of the 650-member Friends of Northern Lake Champlain (formerly Friends of Misisquoi Bay). A long-time member of the school board in Sheldon, Madden became director of the grassroots water quality group in 2006. Friends of Northern Lake Champlain is embarking on a membership drive and working to get more media attention to gain greater public engagement in lake issues. The group is also trying to get more businesses, especially those whose bottom line relies on a clean lake, involved. He is in the construction business and focuses mainly on renovations and additions.

Q: List five adjectives that to you best describe the essence of Lake Champlain.
   Magnificent, precious, irreplaceable, sick, neglected.

Q: If you were Water Quality Czar of Vermont, how would you clean up the lake?
   As Czar-in-my-imagination, we would move forward as rapidly as possible with implementation projects on agricultural lands and on urban stormwater projects. And there must be greater public engagement. We have to continue to work with the media and local citizens groups, as well as statewide groups like VNRC, to build more awareness among the public. Without greater public support, and the resources associated with that support, lake cleanup may well stall.

Q: Why has this lake challenge been so difficult to solve?
   The lake and watershed systems are complex. The threats are numerous and complex: pollution from inadequate stormwater controls, from inappropriate urban/suburban development, from agricultural lands and barnyards, from sewage treatment plants. There are problems stemming from existing road networks, from degraded wetlands, from altered streams, from legacy effects of 200 years of pollution, from invasive species and from the storms and other effects due to climate change. It will likely cost hundreds of millions of dollars to restore the lake. Does Vermont have the political will and the resources to do that? Can Vermont afford to let Lake Champlain continue to deteriorate?

Q: What is at stake?
   Lake Champlain is the finest, most notable and most unique of Vermont’s natural resources. It is a symbol for Vermont’s environmental image. If we can’t keep the crap out of such a treasure, what does that say about Vermont, Vermonters, our commitment to the environment, and our attitude about the future? Our rivers have run mud all summer. We have annual algal blooms in the North Lake and extensive weed beds in the South Lake. This affects Vermonters’ use of the lake, and it affects businesses around the lake. Hundreds of businesses have customers that are in the area because of the lake. Imagine how much more positive an impact there would be if all of the lake was clean.
Q: What drives you to work on addressing lake pollution?

The lake is a wonderful natural, social and economic resource for Vermont. It is surely worth saving and protecting. In the work there is an incredible mixture of science, common-sense, beauty, social purpose, personalities, language, politics, economics, history, hard work, fun and just about everything else, maybe even a little religion.

Q: What could ANR be doing more of today to help clean up the lake?

ANR is the leader on cleaning up the lake, but the Ag Agency and the Agency of Transportation are also involved and should also receive the spotlight. ANR has reached a point where they have good information and good plans in place. It’s time to accelerate the rate of implementation. And, cleaning up the lake requires a carrot-and-stick approach. There needs to be more aggressive enforcement of violations by ANR and the Agriculture Agency. More “stick” will encourage people, farms, businesses and municipalities to make the changes that are necessary to improve water quality in the watersheds that drain into the lake.

Q: What are the troubling trends?

The economy and the budget. Now that most of government, the professionals and the citizens groups have come to a general consensus about action in the lake watersheds, this is a very opportune time to jump forward on lake clean-up. This moment in time may not last long, and missing it would be a terribly wasted opportunity. But the budget cuts have had a disproportionate impact on water quality positions in the Agriculture Agency and ANR. This inevitably delays progress, just when it is so important to be jumping forward.

Q: What innovative actions have the groups you work with to address lake pollution?

We strive to work well with all groups, organizations and agencies, including two groups in Quebec. One would think this was practical and not so innovative, but there sure don’t seem to be very many other organizations that work so hard and so successfully at it. We are having good success working with farmers on field practices in the Rock River watershed that will reduce phosphorus and sediment erosion. This is through an ANR grant with other outside funding, and with great support from the Farmers’ Watershed Alliance, our closest ally. It is unusual to have an environmental group working so closely with farmers, but in our view this is the best and quickest way to clean up northern Lake Champlain.

Q: Are there particular challenges to addressing pollution in your area?

The algae blooms are stunning. They sometimes cover Missisquoi and St. Albans Bay, they leak out into other parts of the Northeast Lake. They’re ugly, they stink and they can be toxic. If citizens and businesses turn their back on the lake because of this, then we lose the support necessary to keep moving forward on lake clean-up.

Q: What are the signs of hope?

Most people working on the lake have come to a general agreement about purpose and direction. The information is solid, the plans are in place or nearly so, and it is time to move broadly on implementation. In 2007 Missisquoi Bay had no blue-green algae blooms. This is a big deal as it means that the bay and the northern lake can be saved, that the goal is achievable, with a lot of hard work and money and with changes by most all of the citizens, businesses and municipalities in the watershed. It can be done. It has to be done if we want a clean Lake Champlain.

Renowned Advocates Join New VNRC Advisory Committee

VNRC has a new advisory committee that will bring broad and extensive additional expertise to the organization. We are honored to work with the following extraordinary individuals:

Maude Victoria Barlow: Author of numerous books, internationally acclaimed advocate for clean and plentiful water and water advisor to the United Nations; chair of the board of Washington DC-based Food and Water Watch.


Will Raap: Founder of Gardener’s Supply; founder and past chairman of the Intervale Center in Burlington; works on ecosystem restoration and landfill gas-to-energy projects.

James Gustave Speth: Former Administrator of the United Nations Development Programme and chair of the UN Development Group; founder of the World Resources Institute and co-founder of the Natural Resources Defense Council; in July 2010 will join the faculty at Vermont Law School.
Decades ago, as Adolph Hitler rose to power, a young man named Felix Lederer realized that the changes underway in his native Germany were significant—particularly to Jewish Germans like himself.

So, in the early 1940s, Felix travelled to Florence, taking residence with the Fazzini family and teaching the young Marisa Fazzini to speak German and play piano. When World War II consumed the continent with all its fury, the family hid Felix away for his own safety. Felix’s troubles did not end with the allied victory, however, as he was held for a time by American forces as an undocumented alien.

Despite the turmoil that surrounded them, Felix and Marisa fell in love and were married, moving from battered postwar Europe to America, as did so many European intellectuals of the era. Ultimately, they were drawn to the Putney School in southern Vermont, where Felix (who had accumulated three PhDs) and Marisa shared their tremendous talents, knowledge, and passion for scholarship with this unique educational community in this most special of states. Felix taught Latin, German, and Italian, while Marisa taught Italian and served as the school’s Admissions Director and Librarian.

Memories of Felix and Marisa

Sven Huseby is a VNRC friend and supporter, and a filmmaker living near the Hudson River in upper New York state. He served as both a teacher at the Putney School and its Headmaster over nearly three decades. Throughout his time in Putney, he was very close to Felix and Marisa Lederer.

“I met them in September of 1966 when I was a new teacher (at Putney) fresh out of Yale... they were my next door neighbors. They took me under their wing as this young, untested teacher and would often in the afternoon have me over for tea. We would talk about education, about history, about what was going on in the US in the 1960s.”

Sven shared fond reminiscences, not simply of his affection for Felix and Marisa and a friendship that spanned more than 30 years, but his deep respect for their intellects, describing their lives as “rooted in scholarship and the arts.”

Sven recalled Felix’s unique presence in the Putney School community. “You could see Felix pacing around campus... always walking very purposely deep in thought with his jacket and his flowing white hair.” He recounted Felix’s unorthodox technique for dealing with students when they were “less that fully attentive.”

“He would make them get up, run around the building, burn off their energy until they could focus on the class.”

While Sven notes that it was the school that drew them to the state, they came to love Vermont and the way of life it represented.

“They loved Vermont,” he said, “for both its natural beauty and a level of civility they were yearning for that they weren’t able to find elsewhere... where diversity could be quietly appreciated.”
During the war another European (and future Vermonter) Joseph Hahn found himself a refugee, as his native Bohemia fell to Hitler’s regional ambitions. The grisly realities of the war landed brutally on Joseph’s family, as he lost his mother and his father in Terezin and Auschwitz, respectively.

After serving as a laborer in England, Joseph studied art at Oxford before immigrating to America, where his writings, poetry and art found international acclaim. One time, he said of himself, “I am a citizen of the world ... The earth, nature is one’s home.”

Ultimately, Joseph found his way to Middlebury with wife Henriette, herself a celebrated and respected artist whose work has been exhibited in galleries in New York, Vermont, and elsewhere. Henriette, the eldest of three children in Queens, attended Hunter College and Cooper Union Art School and had a successful career in advertising and editorial art.

Joseph Hahn passed away in 2007, and Henriette died in 2008. Felix Lederer was laid to rest in 2000 and Marisa passed earlier this year.

While it was unlikely they ever knew each other, both these couples shared a deep love of their adopted home, so far from the challenges of their youth. Each family chose to express that love in part through their memberships with the Vermont Natural Resources Council and their support of VNRC’s mission.

We at VNRC are grateful, honored and humbled to have been remembered in the wills of these extraordinary Vermonters. Through combined bequests totaling more than $100,000, the Lederers and the Hahns have not simply ensured that VNRC does not have to face the threat of staff or program cuts in this challenging economic climate, they have also guaranteed (through their contributions to our endowment funds) that every success in VNRC’s future – whether it be in protecting Vermont’s working landscape, natural habitat, or in planning for a safe and sustainable energy future – will be a part of their personal legacy, and a gift to the state they loved that will keep on giving for generations to come.

— John Odum

Please consider making the work of VNRC part of your legacy by making a bequest in your will. For assistance, feel free to contact us at 802-223-2328 or visit our website at www.vnrc.org.
McKibben, Sanders Bring Urgency, Hope on Climate Threat

Inspiring speakers, fresh, oven-baked American Flatbread, Vermont root beer and live music combined to make VNRC’s annual meeting September 13 at Burlington’s iconic Intervale Center a huge success.

Author and climate activist Bill McKibben kicked off the event, straight off a three-week global climate tour. He urged rapid action to curb consumptive energy practices and bring more renewable energy projects online. He said the world is warming faster than scientists had predicted, threatening whole civilizations and life as we know it. To address the challenge, McKibben urged people to focus on the goal of reducing atmospheric carbon concentration to 350 parts per million from the current 387, and he also urged people to join his 350.org international climate movement and to continue to support and strengthen VNRC’s work on energy and climate action.

Senator Bernie Sanders followed McKibben, offering a quick, up-to-minute overview of the climate bill under consideration in Congress. He stressed the need for bold action and the chance to turn challenge into opportunity by creating hundreds of thousands of green jobs.

VNRC also celebrated two of Vermont’s legislative leaders for their persistence and skill in ushering strong environmental legislation into law this past spring.

VNRC recognized Rep. Tony Klein (D-East Montpelier), the chair of the House Natural Resources and Energy Committee, for his work in guiding a groundbreaking renewable energy bill through the Legislature. VNRC also recognized Rep. Chris Bray (D-New Haven) for doggedly seeing to fruition legislation that creates a biomass working group to look carefully at how Vermont can promote the smart use of biomass energy while maintaining overall forest health, including soil productivity and wildlife habitat.

“With Tony Klein’s leadership, Vermont is now the first state in the nation to enact a ‘feed in tariff,’ a program designed to provide developers certainty and financial incentive to begin to bring more renewable energy projects online in the state. It’s truly something to celebrate,” said VNRC Executive Director Elizabeth Courtney. “And at a time when Vermonters are looking to our forests more and more as an energy source, Chris Bray’s leadership has been, and will continue to be, key in laying the groundwork for good biomass energy policy.”

Be sure to join VNRC at our Annual Meeting next year. In the meantime, visit the Calendar of Events at www.vnrc.org for some exciting, upcoming happenings you won’t want to miss.
“WE REALIZED
good water makes
life great.”
Save the Dates!

**October 24**
**International Day of Climate Action**
Join or create an event to raise awareness about 350 — the “most important number on the planet,” according to author and climate activist Bill McKibben. Go to www.350.org or call VNRC to get involved.

**November 7**
**Environmental Action 2009 Conference**
8:30 to 5:00 at Vermont Technical College in Randolph
Join friends and fellow Vermonters for a day of inspiration, skill building and networking to help create healthy, sustainable communities in Vermont. Don’t miss a “Conversation with Gubernatorial Candidates” on the environment. Find out more at www.vtenvironmentalaction.org.

**December 5**
**Community, Energy, and Climate Action Conference**
8:30 – 4:00
Lake Morey Resort in Fairlee
This daylong event is tailored to town energy committees, local officials and energy-interested Vermonters who want to network and learn energy-innovating tips and strategies. Find out much more at www.regonline.com/VTEnergy. For more information about any of these events, contact VNRC’s Johanna Miller at 802-223-2328 or jmiller@vnrc.org. Come, spread the word and help build an engaged, empowered network of Vermonters to create a clean, green, vibrant and beautiful Vermont.