



## THE LAKE IROQUOIS MONITOR

News about Lake Water Quality and Actions of the Lake Iroquois Association

### LAKE IROQUOIS ASSOCIATION: RECAP OF 2011

BY BOB PASCO, LIA PRESIDENT

LIA continues the work of trying to protect and enhance the water quality in Lake Iroquois. The organization now consists of ten directors and meets on a monthly basis. Responsibilities are shared among the directors with initiatives coming from a number of people. The membership of LIA doubled from that in 2010.

During the year 2011, LIA administered several grants aimed to provide data on how best to improve the quality of water in the lake. One initiative called for weekly monitoring of the streams that enter the lake to determine which tributaries contribute the most pollutants to the lake. This LaRosa grant, spearheaded by Dan Sharpe, will be ongoing into the year 2012.

A \$10,000 grant written by Roger Crouse allowed for a detailed study and remediation plan for the west shore of the lake where storm water runoff is the most damaging. The study has proved to be very thorough and professional and a committee has been appointed to determine which actions are to be taken first. Money contributed by the towns of Williston and Richmond will be dedicated to this effort and the Town of Hinesburg has been asked to help with heavy equipment to support the endeavor since the remediation area is in Hinesburg.

For the third year in a row, paid greeters were hired to inspect boats and trailers entering and leaving the lake from the fishing access. This effort has

been supported by LIA dues as well as yearly grants from the Department of Environmental Conservation. Over 1000 boats were inspected by greeters during the past summer, with a significant number carrying plant material to and from the lake in violation of state law.

Not all efforts were hard work. The annual picnic provided a fantastic spread for over 60 homeowners and their families. Chef Steve Lidle, LIA Vice-President, provided a gourmet meal for those who attended. During the event, samples of rain gardens and rain barrels were on display to encourage lakeside property owners to adopt these technologies to reduce runoff into the lake. An

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### SAVE THE DATE!

*The LIA Annual Picnic is  
scheduled for Sunday,  
July 15!*

*Chef (and LIA Board  
VP) Steve Lidle has  
promised another fan-  
tastic spread!*

*More details coming  
soon.*

### PLANS TO MITIGATE RUNOFF INTO LAKE IROQUOIS

BY ROGER CROUSE

Dark brown runoff poured down from points above Lake Iroquois near Shadow Lane and onto the frozen lake. A year-round resident took photos of the grimy mess on the ice, and sent copies to the Lake Iroquois Association. It was December 2009. Everyone knew there was only one place that runoff would go - into the lake as soon as the ice melted.

Roger Crouse, then LIA pres-

ident, took the photos and a request for help, to Hinesburg, Richmond, Williston, the Agency of Natural Resources (ANR) and the Lake Champlain Basin Program. The association submitted a grant request to ANR, which paid for engineering work during the summer and early fall of 2011. The voters of Richmond and Williston also approved funds as part of their 2011-2012 budgets. Thanks to all for assisting with this effort.

After studying several pro-

posals, LIA hired Newton Technical Services of Barre to coordinate the engineering study. With representatives of LIA, Doug Newton, the engineer, walked along two runoff areas. The first was the one associated with the photos, about 100 feet south of Shadow Lane. The other area was about 500 feet further south. Both are subject to significant runoff from Dynamite Hill and they cross the property owned by John Wilson of Pond Road in

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**2011 RECAP...(CONTINUED)**

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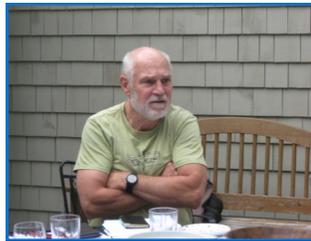
effort to educate those using the lake on ways to prevent introducing pollutants into the lake is ongoing and multi-faceted.

As with other lakes in Vermont, Lake Iroquois is seeking financial support from the towns bordering the lake to supplement member dues and grant money. Most lakes are contained within a single town making ownership of outcomes and coordination of efforts easier than with a lake such as ours, which has four stakeholder towns. Board members of LIA have begun working with the Lake Iroquois Recreation District (LIRD) to coordinate efforts to maintain the lake, the beach and the fishing access as the valuable assets that they have been for years to bordering communities.

A website is now in place ([www.lakeiroquois.org](http://www.lakeiroquois.org)) to give updated information about these efforts. Please check this attrac-

tive and informative website for details about our numerous activities.

*(A version of this article appeared in the annual town report of Hinesburg and Williston)*



*Bob Pasco,  
LIA Board President*

**PLANS TO MITIGATE RUNOFF...CONTINUED)**

*(Continued from page 1)*

Hinesburg. (LIA has included John in all of this effort, and we thank him for his support.) Both areas were easily walked and studied until the windstorm of early December 2010 cluttered the area with many fallen trees.

Newton Technical Services, and two subcontractors, completed the engineering study in the fall of 2011, and submitted their recommendations to LIA this past December. LIA has requested that their recommendations be prioritized so that we can complete the work in an orderly fashion and as funded. Early estimates of the entire project are slightly under \$100,000. Your fi-

nancial support as well as towns and other donors are greatly needed. We will also seek further grants. If you are interested in more information on the recommendations, check our website at [www.lakeiroquois.org](http://www.lakeiroquois.org), or contact the current president, Bob Pasco.



*December 2009 runoff*

**Storm water is a curse!**

The weather forecast for the next eighteen hours calls for showers, then rain and thunderstorms. Well it's spring. We expect that through this season, summer and fall. Our tree and bushes will soon show that beautiful light spring green color. Our green mountains, fields and meadows will blossom.

Soon Lake Iroquois will also be green.

Those showers, rain and thunderstorms result in storm water, a pleasant sounding phrase that feeds our brooks, streams, rivers and lake.

But storm water is also a curse. It is pure water until it hits land. Then it is a pollutant, contaminating our soil and water. Surges of storm water sweep sewerage, fertilizer, waste and trash into Lake Iroquois

This turns Lake Iroquois green.

Nutrients from the runoff facilitate growth of milfoil which will soon make parts of our lake impassable for swimmers, paddlers and low powered boats. The big boats, most from away, will continue to chop milfoil up into seedlings for more growth-indeed, fields of feathery finely dissected leaves.

A recent new toxin: blue-green algae, caused by excessive nutrients, is our newest challenge. Left alone these nasty algae could cause disease in humans and animals.

Yes, another curse from storm water.

The Lake Iroquois Association, through funding from the VTDEC grant project is monitoring ten streams that bring storm water into the lake. Water samples from these hot spots have shown significant nutrients are polluting the lake on the west shore and by Beebe Lane on the east shore. Water sampling will continue this spring, summer and fall. This will result in collective remediation.

We can't stop the rain from falling. We can reduce pollutants entering Lake Iroquois. Individual diligence, employing rain barrels, rain gardens and retention ponds, are part of the solution. Collective action through shoreline protection is a vital step in creating a healthy and vibrant Lake Iroquois.

Goodbye to storm water. Hello to a healthy Lake Iroquois.

*—Jim Ross*

## WHAT'S A SHORELINE BUFFER?

How a town chooses to manage its shore lands can greatly impact the water quality and aquatic and wildlife habitat of Vermont lakes. **Maintaining shore land buffers -the vegetated areas adjacent to lakes and ponds-is the most widely recommended and scientifically supported approach to protecting lake habitat and reducing pollution in storm water runoff from uphill land uses.** Building too close to the water's edge, cleaning a shore land lot of its natural vegetation or covering too much of it with driveway and rooftop surfaces can increase storm water runoff, erosion, nonpoint sources of pollution (especially phosphorous and sediment), harm habitat and destabilize shoreline banks.

The science supporting the evidence that buffered shores are essential for maintaining healthy lakes is indisputa-

ble; leaving a vegetated buffer between a structure and a lake lessens the effect of development. For more information, go to the LIA website ([www.Lakelroquois.org](http://www.Lakelroquois.org)) or the Vermont Department of Environmental Conservation. Having a buffer of natural vegetation along your shoreline can benefit all of us!

**For more information from Vermont Agency for Natural Resources:**

[http://www.vtwaterquality.org/lakes/docs/lpseries/lp\\_lpseries3.pdf](http://www.vtwaterquality.org/lakes/docs/lpseries/lp_lpseries3.pdf)

EXCERPTED FROM "THIS LAND IS SHORELAND"

VLCT NEWSLETTER, JUNE 2011

## LAKE IROQUOIS TRIBUTARY MONITORING

BY DAN SHARPE

After a precipitous end to the project in 2011 to monitor the condition of five tributaries feeding the lake, the LIA has received a new grant to monitor the lake's tributaries in 2012. The 2011 project ended in late August when the floodwaters of Irene destroyed the laboratories of the Vermont Department of Environmental Conservation (VTDEC) in Waterbury.

The Tributary Monitoring Project is funded by a grant from the VTDEC. It

is part of the systematic approach of the LIA to survey the Lake Iroquois watershed, to identify sources of nutrients and other pollutants entering the lake and then to adopt remedial actions to improve the lake's water quality. This year we will monitor 10 tributaries and test levels of nitrogen and phosphorus (primary fertilizers for algae and other plants), chloride (from road salt) and turbidity (particulates from soil). This testing will document anticipated improvements from actions taken to improve watershed drainage and reduce erosion on some of



Dan Sharpe

the roads on the lake's west side. It will further identify sources of pollutants and nutrients, leading to further improvements in the watershed.

Without these actions, the lake's nutrient levels have continued to increase, result-

ing in toxic blooms of blue-green algae in 2010 and 2011 and further deterioration of the lake's water. Improvements in water quality are critically important for many people who live on and come to the lake every year.

Volunteers will be taking samples from 10 sites around the lake over the course of the season. Our first samples were taken in late April. If you see someone taking samples of water in test tubes near the lakeshore, come talk with us about this project. Unless another flood interrupts us, we will finish the year's sampling at leaf fall in October.

### DID YOU KNOW....

While Tropical Storm Irene pushed through VT on 8/28/11, an ambulance whisked Roger Crouse, a founder and past-President of LIA, from his camp to Fletcher Allen Health Care because of a stroke. Now about nine months later, he still experiences some numbness on his left side and fine motor skill problems with his (dominant) right hand. Despite those challenges, he has been through driver rehab and is cleared to be on the road. He is walking (wishes he were running) two miles each day and has a long list of daily rehab exercises. Sleep is right up there on the list. He wishes to express his appreciation for the concern and support he and Judy have received over the last several months, both those they know around the lake and near their winter residence in Essex. He is also back as an effective member of the LIA Board.



Roger Crouse

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### DID YOU KNOW...

That a member of the LIA Board has a master's degree from the University of Florence (Italy) in sculpture?



Blue-green algae bloom Fall 2011 on southwest shore of lake.

## What the Lake Iroquois Association is doing for you!

- ◆ Hiring Greeters for the fishing access for the summer of 2012.
- ◆ Submitting a grant-in aid application to the Department of Environmental Conservation to help pay for those greeters.
- ◆ Engaging the Town of Hinesburg highway department to help carry out the first stages of the storm water abatement coming off on Dynamite Hill.
- ◆ Working with the Lake Iroquois Recreation District to stop storm water from entering the Lake from the beach, which increases phosphorus levels in the lake which in turn feeds Eurasian-Water Milfoil.
- ◆ Carrying out and expanding upon the second year of a VTDEC grant written by Dan Sharpe to monitor the level of contaminants coming from the various streams that flow into the Lake.
- ◆ Carrying out the plan for abating the water runoff on Pine Shore Drive through a Better Back Roads Grant written by Meg Handler.
- ◆ Planning a study of the Dynamite Hill area to insure that further development does not negatively impact the lake.
- ◆ Formally requesting that the Town of Williston begin the process of creating an overlay district for Lake Iroquois. (Other towns will be asked also.)
- ◆ Preparing to hire divers to clear the channel from the fishing access of milfoil.
- ◆ Installing channel markers and hazard buoys before the boating season.
- ◆ Carrying out a series of wine tasting events led by LIA VP Steve Lidle to raise funds for the Lake Iroquois Association. (This is the fun part!)

*The Lake Iroquois Association is a 501(c)(3), tax-exempt, non-profit organization with the mission to maintain and enhance healthy ecosystems and appropriate public uses of Lake Iroquois and those aspects of its watershed which impact on the health and well being of the lake. This will be achieved through monitoring, preventive and management initiatives, research, education, advocacy and other actions, involving the cooperative efforts of property owners, town, State and federal officials and other interested parties.*

*[www.lakeiroquois.org](http://www.lakeiroquois.org)*

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