NEWSLETTER

The Federation of Vermont Lakes and Ponds, Inc. • P.O. Box 766, Montpelier, VT 05601

Spring 2015 Number 16

President's Corner

Jackie Sprague, President (Harvey's Lake)

Welcome to spring! I think. For the readers who have spent this winter in warmer climes I envy you for the first time in my life! This has been the coldest winter I remember with many days of subzero temperatures! I am looking forward to seeing green!

The Federation of Vermont Lakes and Ponds (FOVLAP) has had a busy year. Many exciting workshops and outreach projects have occurred due to board director Judy Davis and her successful grant writing. Homeowners all over the state have been beneficiaries of shoreland technical assistance, shoreline plantings and expertly crafted workshops due to these grants. The FOVLAP website has been updated and will have the capacity to accept credit cards for payment for seminars, annual meetings and perhaps a gift shop in the future. Many thanks to board director Don Weaver for overseeing this feat and to FOVLAP treasurer Bruce Barter for his financial expertise.

Since 2011, FOVLAP has awarded a $500.00 scholarship to students enrolled in an environmental field of study. This was the brainchild of John Washburn, past President of the Northern Federation of Vermont Lakes who served on the FOVLAP board for many years. Our involvement in the scholarship has continued to be a rewarding approach to encouraging future generations of lake stewards. Last year the committee selected Emily Geske, who is attending Colby College with an intended double major of biology and environmental science. Emily states, "I grew up in a family that was incredibly outdoorsy which allowed me to explore my natural curiosity of nature. My childhood perspective of the natural world was enlarged as I became passionate about biology and environmental science through two programs: Sustainable Ocean Studies and The Governor's Institute of Vermont Environmental Science and Technology." Emily attended the 2014 FOVLAP Annual Meeting and was warmly welcomed by all. We look forward to selecting our 2015 recipient!

Our most exciting endeavor is to host the annual 2015 Conference of the New England Chapter of the North American Lake Management Society. (NEC NALMS) Each New England state hosts this wonderful event where lake volunteers and scientists gather together to learn and share their experience of protecting the waters that we love. The Federation of Vermont Lakes and Ponds and Vermont Agency of Natural Resources are co-hosting the event to be held May 29 and 30 at Burlington's Main Street Landing Performing Arts Center on the shore of beautiful Lake Champlain. The theme of this year's conference is Celebrating the Natural and Cultural Values of our Lakes. Come learn about the spiny water flea, cyanobacteria and shoreland best practices, from pathways built by mountain bikers to landscaping with native plants. You'll also get great web resources, easy mapping tools, and much more. Please see additional information in this newsletter. We hope to see you there.

Happenings at the State House

Ginny Garrison, FOVLAP Legislative Committee Member

FOVLAP's Legislative Committee is watching what's going on in the Vermont Legislature this year and keeping members informed through periodic Legislative Updates to FOVLAP's website. As of March 29, 2015, a total of 639 bills have been introduced into the Legislature since the new biennium began in January, 494 House bills and 145 Senate bills. Seventeen bills may be of particular interest to FOVLAP members, namely H.4, H.5, H.6, H.29, H.33, H.35, H.37, H.53, H.54, H.428, H.484, S.45, S.46, S.47, S.49, S.123, and S.134. The text of these bills can be found via the Legislature's website search system. Just type the bill number into the search box on the Legislature's home page: http://legislature.vermont.gov/. A link to each bill is also contained in updates on the bills in the Legislative News section of FOVLAP's website: http://vermontlakes.org/legislativeupdates/.

Most of the above bills have seen little committee action to date and are still in their respective starting committees - the House Fish, Wildlife and Water Resources Committee or the Senate Natural Resources and Energy Committee. However that doesn't mean that water quality hasn't been a primary focus of the Legislature this year. The two committees have been spending considerable time hearing testimony on two broad reaching bills designed to improve the quality of Vermont's waters. It is anticipated that both H.35 and S.49 will be substantially revised from the bills that were introduced and that both will be acted upon in some manner this session.

The purpose of H.35 is to improve the quality of Vermont's waters, implement the Lake Champlain TMDL (phosphorus management plan), meet impending TMDLs for other waters identify cost effective strategies to address water quality and engage interested parties in water quality efforts. As currently being discussed in committee, it addresses many point and nonpoint sources of nutrients including, among others, agricultural activities, stormwater, forestry activities, and wastewater treatment facilities. It establishes a Clean Water Fund to provide funding to (1) programs and projects that address sources of water pollution in waters listed as impaired, (2) projects that address water pollution in critical source areas and (3) programs or projects to repair riparian conditions that pose a risk of flooding. Monies for the Clean Water Fund will come from a 0.2% surcharge on the property transfer tax. S.49 addresses similar issues as H.35, but the details of the bill are still under discussion. These are definitely bills to watch!

Three of the above bills have passed the House this session and are currently in the Senate. H.4, which would prohibit the manufacture or sale of personal care products and over-the-counter drugs containing synthetic plastic microbeads, passed the House in January and is currently in the Senate Natural Resources and Energy Committee. Microbeads in surface waters are an emerging environmental and human health concern. Most municipal wastewater treatment plants do not effectively filter microbeads from wastewater discharged to rivers and lakes, resulting in the pollution of our waters. In addition, microbeads can attract toxins that are present in the environment, and when the microbeads are eaten by fish, these toxins may bioaccumulate and be passed on to humans. An internet search on "microbeads" can provide more information on this topic.

H.5, an act relating to hunting, fishing, and trapping, initially contained language that would have repealed Vermont's ban on the use of felt-soled boots and waders in Vermont waters. This ban was instituted several years ago to help reduce the spread of aquatic nuisance species and fish diseases. When H.5 passed the House in March, the language repealing the ban was no longer in the bill. H.484, a bill that deals with numerous agricultural issues, was created by the House Agriculture and Forest Products Committee and passed the House in March. It is currently under consideration in the Senate Agriculture Committee. This bill would alter some of the requirements farmers must meet to receive state financial assistance for water quality protection-related activities.

The other twelve bills mentioned above of potential interest to FOVLAP members have not been acted upon in the Legislature to date. If you would like to stay up-to-date with which bills the committees are working on, the weekly committee agendas can be viewed online here: House Fish, Wildlife and Water Resources: http://legislature.vermont.gov/committee/detail/2016/12 Senate Natural Resources and Energy: http://legislature.vermont.gov/committee/detail/2016/30

If you would like to receive an email when the FOVLAP Legislative Committee posts updates to FOVLAP's Legislative News page, go to http://vermontlakes.org/legislativeupdates/ and then type your email address into the "Follow updates by email" box and click on "Subscribe."

Update from the Agency of Natural Resources

Perry Thomas, Program Manager, Lakes & Ponds, DEC

First, Susan Warren and I want to let FOVLAP members know how much we appreciated the supportive cards and messages many of you sent during the past few months as we went through our respective transitions. For readers who have not yet heard our news, here are the details briefly:

* In December, Susan retired from the Vermont Department of Environmental Conservation's Lakes & Ponds Program after 33 years of service.

* In February, I packed up my office at the Community College of Vermont in Newport and began work in Montpelier as Program Manager of the Lakes & Ponds Program.

As far as ANR news, we are in the midst of another exciting legislative season in Montpelier! A major "Clean Water Bill" has been making headway in the State House since Governor Shumlin used his second-term inaugural address to highlight water quality challenges across Vermont. Visit FOVLAP's legislative blog at

http://vermontlakes.org/legislativeupdates/ to get the latest updates.

Meanwhile, Lakes & Ponds Program staff members are busy implementing the Shoreland Protection Act. During fall 2014 we combined the new shoreland permitting process with lake encroachment permitting. This merger streamlined our operations and allowed us to consolidate permit education outreach. If you would like to arrange a presentation or training in your community, contact your regional permit analyst:

County	Contact
Addison	Region 1 Misha Cetner misha.cetner@state.vt.us (802) 490-6199
Bennington	
Rutland	
Windham	
Windsor	
Chittenden	Region 2 Kevin Burke kevin.burke@state.vt.us (802) 490-6165
Franklin	
Grand Isle	
Lamoille	
Washington	
Caledonia	Region 3 Dan Homeier dan.homeier@state.vt.us (802) 490-6200
Essex	
Orange	
Orleans	

On the shoreland management front, our Lake Wise initiative continues to grow, nurtured by Amy Picotte. As summer approaches, Amy looks forward to supporting Lake Wise Leaders and training new ones. For more information about Lake Wise, see Amy's article in this newsletter.

I hope to see many of you at the Vermont Lakes Seminar in Burlington May 29 - 30. Always a lively event, this year's Seminar promises to be even more inspiring as FOVLAP collaborates with New England's chapter of the North American Lake Management Society (NEC-NALMS). If you are new to NEC-NALMS and NALMS, I encourage you to explore their websites: https://sites.google.com/site/necnalms/about-us and http://www.nalms.org/. Note that NALMS' 2015 International Symposium will be held November 17 - 20 in Saratoga Springs, New York, a rare chance to attend an international lake conference locally!

You're Invited to NEC NALMS in Vermont!

Come join us to **Celebrate the Natural and Cultural Values of Our Lakes**, May 29-30th, for the Vermont-hosted **New England Chapter of the North American Lakes Conference**. The NEC NALMS conference will take place in Burlington, along the banks of Lake Champlain in the state-of-the-art, LEED certified Main Street Landing and Performing Arts Center.

Three different workshops kick off the events on Friday afternoon, followed by a "science social" at Hotel Vermont , a must-see rustic yet modern spot in Burlington decorated with green infrastructure, and dinner out downtown.

Starting Saturday morning, we will wake up to the ***Lake Show,*** hosted by renewed lake scientist and consultant, Dr. Ken Wagner. Also greeting us Saturday morning will be Dr. Reed Green, President of the North American Lakes Management Society. Three concurrent sessions – ***Lake Ecology and Human Health, Beautiful Lakeshores*** and ***Communicating the Value of Your Lake*** - will fill the day. We'll have a chance to meet and learn from lake managers, scientists, shoreland owners and lake users throughout New England. There is even a session planned, similar to the moth radio show, where **lakeshore owners will have five minute slots to share "the meaning of their lake" as a way to communicate the value of their lake. Interested in presenting? Let us know**. Other things planned include a silent auction, poster sessions, a lake-themed art gala, and a lunch catered by the Skinny Pancake.

To learn more about how to register for Friday, Saturday or both days, visit vermontlakes.org.

We're looking forward to seeing you at NEC NALMs.

Your Co-Chairs,
Jackie Sprague*, President of the Federation of Vermont Lakes and Ponds and*
Amy Picotte*, Vermont DEC Lakeshore Manager*

For more details, please read the following:

Friday Workshop Descriptions

These workshops are suitable for multi-generations as they will engage all ages in lake and watershed fun and science.

Allen Brook Stream Bank and Buffer Restoration Project

Led by Ann Smith, Friends of the Winooski River and coordinated by Watershed United's Ann Ingerson

1:30 – 4pm; minimum of 12

Join Friends of the Winooski River for a field visit to a stream bank restoration project on Allen Brook in Williston, a short drive from Burlington. This workshop will cover restoration project identification, geomorphic data collection, project design including stream bank reshaping, stabilization and buffer plantings, and follow up monitoring and evaluation. A targeted discussion on implications of the project to Lake Champlain, estimated reduction in sediment load to Allen Brook and project cost will be part of the workshop. Participants will travel by van to the site meeting at the Main Street Landing Performing Arts Center in the Lake Lobby at the conference registration table.

Lake Champlain Boat Trip on the UVM Research Vessel Melosira

With Captain Steve Cluett and crew, Rubenstein Ecosystem Science Laboratory, University of Vermont

1:30-3:30pm; limited to 25

Join UVM staff on their Lake Champlain research vessel to explore and sample Lake Champlain. After registering for the NEC NALMS conference in the Lake Lobby of the Main Street Landing and Performing Arts Center, you can walk down to the dock behind ECHO Lake Aquarium and Science Center at the bottom of College Street where the Melosira will be docked and waiting for you.

Paint Your Own Landscape through Paint the Lake

1:30-3:30pm

Join Maxine Verteramo, MS student at SUNY Oneonta in Lake Management and employed by Lake Water Resources in Massachusetts, in the "Paint the Lake" workshop. Painting lakescapes is an effective way to learn lake science and stewardship, while enjoying a lot of laughs. Relax and have fun over a refreshing glass of wine or tea and learn to paint a picture of a lake! Step by step instruction will be given along with insight on the science of lakes (like what makes water a blue color?). No painting ability needed to join this "make and take" session where everyone will go home with their own masterpiece! The workshop will be held at the Main Street Landing and Performing Arts Center where you register for NEC NALMS. (Paint the Lake will also be offered as a two-hour session during Saturday's full day conference.)

Saturday Sessions

Light Breakfast and Lunch are included in Registration costs.

***The Lake Show* with Dr. Ken Wagner, President, Lake Water Resources Management**

Dr. Wagner will cover major and minor lake issues throughout New England and will call upon audience participation. Most everything covered during this program will be true, but possibly not all…. Come learn about lakes while enjoying some fun!

Concurrent Sessions

Lake Ecology and Human Health

Learn from a panel of New England experts on the facts and misconceptions of Cyanobacteria; Invasive Species Issues, including information about the newcomer, Spiney Water Flea; and the most current concerns regarding our lakes and the impact to our health. And, what did Massachusetts do with all their snow this winter? We'll cover this topic too from a lake perspective!

Beautiful Lakeshores

Hear several presentations on shoreland protection and management practices, including regulatory from shoreland to septic, and voluntary programs from gardening to re-naturalizing shores offered in different New England states. This session will also cover designing Trails and Pathways, and connections being made from lakeshores to mountain tops by mountain bikers, birders, and hikers.

Communicating the Value of Your Lake

This session will feature 8-10 five-minute stories and photos about "The Meaning of My Lake," presented by volunteer monitors, Lake Leaders, shoreland owners, or any lake lover willing to share a lifetime or a special moment of their life and their favorite lake. Sharing stories about a relationship to a New England lake(s) will inspire, rejuvenate, and reconfirm our love of and care for lakes. Come hear how meaningful lakes are in our lives! We will also cover current communication tools like social media, I-phone apps, list serves, etc. that are useful to get your message out.

Conference Finale

Sure to inspire everyone! Come hear and learn about a new, scientific initiative that links all conference sessions together, yet will be eye-opening and outrageous for all. The "Ted Talk," experienced and entertaining researcher, Rachel Miller will present on the Rozalia Project, addressing marine debris and how it's not just an ocean problem. Her data spans from Lake Champlain and the Waterbury Reservoir to the Atlantic coast where she sets sail on the boat, *American Promise*.

Registration Form

2015 Vermont Lakes - NEC NALMS Conference

Friday, May 29th, 2015, 1:00 pm - 5:00 pm
Saturday, May 30th, 2015, 8:30 am - 3:30 pm
Main Street Landing Performing Arts Center
60 Lake Street, Burlington, VT

Register by mail using this form and enclosing a check or register and pay with a credit card online at http://www.vermontlakes.org. Registrations must be received by May 26, 2015.

		Number Attending	Subtotal
Friday, May 29th ONLY	**$40**	_____	**$ _____**
Friday Workshop Preference			
• Boat trip aboard UVM's research vessel Melosira		_____	
• Allen Brook Stream Bank & Buffer Restoration Project		_____	
• Paint a Lake		_____	
Friday Group Dinner (for reservation; registration does not include cost of meal)		_____	
Saturday, May 30th ONLY	**$60**	_____	**$ _____**
Full Conference (BOTH Friday and Saturday)	**$85**	_____	**$ _____**
Friday Workshop Preference			
• Boat trip aboard UVM's research vessel Melosira		_____	
• Allen Brook Stream Bank & Buffer Restoration Project		_____	
• Paint a Lake		_____	
Friday Group Dinner (for reservation; registration does not include cost of meal)		_____	
Amount enclosed (make check payable to FOVLAP)			**$ _____**

Name(s) _____

Mailing Address

Street (or PO Box) _____

City _____ State _____ Zip _____

Telephone _____ E-mail _____

Make check payable to FOVLAP and mail with this form to: FOVLAP, c/o Bruce Barter, PO Box 766, Montpelier, VT 05601

FOVLAP Website Update

Don Weaver, FOVLAP Board Director (Northern Lake Champlain)

www.VERMONTLAKES.ORG, the website for the Federation of Vermont Lakes and Ponds (FOVLAP) has recently had a facelift, a total makeover, starting with a tracking navigation bar (or menu) at the top of the page, and icons at the bottom of the page to connect you to Facebook, Twitter and Goggle +. The tracking navigation bar allows direct access to the information you are seeking without scrolling through the pages. Very soon you will find current events listed under "Spotlight" on the Home page, with a direct link to our "News & Events" page displaying all the information you need.

An online registration feature has been added for your convenience when paying for the NEC NALMS Conference and other annual events. It will accept all major credit cards.

"Legislative Updates" lists proposed new bills or revisions to existing state statutes that may be signed into law. These are posted as changes take place so it remains up-to-date. You can subscribe to receive the posted changes via e-mail as they are updated.

"Wise about Water" is a blog where you learn how to turn knowledge into action. Do you have an unanswered environmental or shoreline question? Please send us your burning question and we will provide an answer via e-mail or the blog.

Check out "Programs", the educational section that provides information on shoreline protection and lake health.

"Resources" includes valuable links to information from other key states, that are leaders in shoreline protection. Finally, a list of lake associations throughout the state are listed with their associated websites. Let us know if your association website is missing.

If you have a question or suggestion for webpage improvement, please contact us using "Contact Us" located under "About Us".

Lake Champlain, Converse Bay near Charlotte
photo by Gerry Hartley

Preventing the Spread of Aquatic Invasive Species: Will you be Ready?

Ann Bove, Environmental Scientist, Lakes & Ponds, DEC

Aquatic invasive species (AIS) continue to be a great concern in Vermont, demanding our attention as well as our resources. Vermont Public Access Greeters educate lake visitors about invasive species, provide courtesy watercraft inspections, and STOP introductions.

2014 marked the Public Access Greeter Program's 13th year. Through 24 locally run programs throughout Vermont, access greeters greeted and educated 18,274 visitors about AIS and spread prevention techniques, sharing the **"Clean, Drain Dry!"** message. Greeters recorded and removed 622 organisms from 17,484 watercraft. The cumulative number of watercraft inspected by greeters through the history of the program is over 91,000.

During inspections performed in 2014, a total of 622 watercraft were intercepted with aquatic plant material or animals. Of those intercepts, 359 instances were Eurasian watermilfoil and two were zebra mussels. These highly invasive species are a threat to the ecological, recreational, and economic health of our lakes and ponds. Thanks to all of the greeters who have worked to protect our lakes and ponds from harmful AIS.

(Photo courtesy of VTDEC)

Vermont lakes may still be covered with ice but the 2015 boating season is fast approaching. Will you be ready to help stop the spread of AIS? Please join Vermont Lakes program staff at one of three workshops being offered in 2015 to train public access greeters and anyone interested in learning more about how to prevent the spread of AIS. Contact Ann Bove at ann.bove@state.vt.us or (802) 490-6120 for details and to register. All training workshops are free.

Six Simple Lessons Learned While Living With Milfoil

Bruce Durgin, Board Director (Lake Morey)

Twenty plus years of exposure to Eurasian Milfoil has taught our lake association, the Lake Morey Protective Association, some basic lessons in dealing with this invasive weed. I would like to share some of these lessons with other interested lake folks.

1. Once discovered, Milfoil will never be totally eradicated! This is a harsh reality. It takes forward thinking to plan for the next step in the maintenance process.
2. Having learned lesson number 1, we must continue to monitor for this invasive and stay on top of new threats to our lake. Staying active in FOVLAP is the key here. There are other freshwater invasives on the horizon and FOVLAP is an excellent to share strategies and keep abreast of new threats.
3. While increasing water clarity is a constant goal of all lake preservers, the clearer the water, the faster this weed grows and the more likely it will grow in deep sections of the lake.
4. A key to staying on top of the situation is to have an "Adopt-a-Lake" group that covers the entire shoreline of the lake. Activities for "Adopt-a-Lake" include scuba/skin diver hand pulling milfoil, weekly or monthly survey of the lake bottom by boat, etc. It takes a very dedicated person to coordinate the activities of these volunteers.
5. To properly fund the chemical treatments, it is imperative to have your town administration on board with the program. This requires constant communication with your selectmen, town administrator and town treasurer.
6. For liability reasons, the permit applicant for chemical treatment should be the town, not the lake association.

In fighting the good battle against invasive weeds, I trust these lessons help you and your lake.

Thanks for Checking Your Equipment and Removing any Plant or Animal Material!

Eurasian watermilfoil

Variable-leaved watermilfoil

Hydrilla

Be on the lookout for these species in particular!

Water Chestnut

Asian Clam

Round Goby

Zebra Mussel or Quagga Mussel

Under Vermont Law, failure to remove any aquatic plant or plant fragment, zebra mussels or quagga mussels from your recreational equipment can result in a fine of up to $1000.

(pursuant to 10 V.S.A. § 1454, 23 V.S.A. § 3317, 6 V.S.A. § 1034, 1037 & 1038)

2015 Lakewise Trainings

Amy Picotte, Environmental Scientist, Lakes & Ponds, DEC

Vermont Lake Wise is a voluntary, shoreland management program designed to recognize and inspire shoreland practices that help protect the lake. The lake science is clear that it is possible to develop lakeshores in ways that do not degrade lake conditions. To learn how to manage your shoreland property so that it is protective and considerate of the wildlife and water quality, become a Lake Wise steward by using lake-friendly practices and earn the beautiful Lake Wise Award sign.

Best Management Practice: Earning the Lake Wise Award for establishing a 15 foot wide vegetation strip along the shoreland from minimizing the mowing with a "no mow" zone.

During 2015, the Lake Wise Program will be offering two- to four-hour workshops to teach lake users and shoreland owners how to assess a shoreland property for why and where good shoreland management practices are essential for protecting the lake. If you would like to learn more about how to participate in Lake Wise or how to host one of the 2015 Lake Wise Training Workshops, please contact Amy Picotte in the Vermont Agency of Natural Resources' Lakes and Ponds Program at Amy.Picotte@state.vt.us. You can also learn more about Lake Wise by visiting the web site at:
http://www.watershedmanagement.vt.gov/lakes/htm/lp_lakewise.htm

Best Management Practice: Using waterbars to prevent driveway erosion and runoff

Best Management Practice: Newly established "no mow" zone along the shore helps filter stormwater runoff, stabilize shore, and protect shallow water habitat and property from storm damage.

Best Management Practice: Protecting natural shores allows for trees and more time to enjoy a good rope swing.

Tile Drains a Significant Source of Phosphorus

Lake Champlain Committee

The importance of agricultural tile drains as a contributor to water quality pollution is gaining more attention. In addition to its other provisions, the water quality bill recently passed by the House Fish, Wildlife and Water Resources Committee indicates some concern about agricultural tile draining. The bill calls for the Accepted Agricultural Practices to include requirements for reducing nutrient loading from tile drains, and calls for a report on the impacts of tile drains on water quality and means to mitigate those impacts. They are wading into a confusing but very important topic.

Tile drainage is a tool farmers use to drain water from their fields faster. They install perforated plastic pipes in trenches two to four feet below the surface. The pipes accumulate water and whisk it to a nearby outlet by a stream or wetland. Tiling allows farm fields to dry earlier in the spring and prevents excess water build up during wet periods.

On a field level, tile drainage changes the dominant flow pathway from overland to subsurface, sometimes by as much as 90%. This can lead to an up to tenfold increase in soluble phosphorus loading.

Soluble phosphorus loading from agricultural fields has received little attention. For years scientists assumed the principal means by which phosphorus reached water bodies was attached to eroded soil particles. However, that equation can change dramatically with different soil types. Soils that crack develop preferential flow paths through which phosphorus-rich waters can reach below-ground tiles. Dissolved phosphorus also escapes soils that have low levels of aluminum or iron that otherwise bind phosphorus.

At long last the role of phosphorus loading in tile drains is getting increased attention. Tile drains were the subject of a cover story in the February issue of *Crops, Soils, Agronomy News*. The March-April 2015 issue of the *Journal of Environmental Quality* will have a special section on the topic.

There has been a striking increase in soluble phosphorus loading to Lake Champlain. A similar trend has been seen in Lake Erie and in Europe's Baltic Sea. Soluble phosphorus has often been associated with discharge from wastewater treatment facilities, but we know the increase is not coming from them.

"Subsurface transport (of phosphorus) is the weakest link in our assessment of the risk for phosphorus loss. So, we need to bring attention to this deficiency and advance our tools to predict it, but it won't be easy" says USDA soil scientist Peter Kleinman. "As we've tackled other problems, it has emerged as one of the most intractable things."

In one Ohio study researchers found below ground loss of phosphorus to be low, amounting to about 2% of the fertilizer applied to land. Yet phosphorus concentrations in the tile drains were higher than for most wastewater treatment facilities. "So, from an agronomic standpoint, the farmer is doing great, but from an environmental standpoint, (the loss) is very significant," said researcher Kevin King.

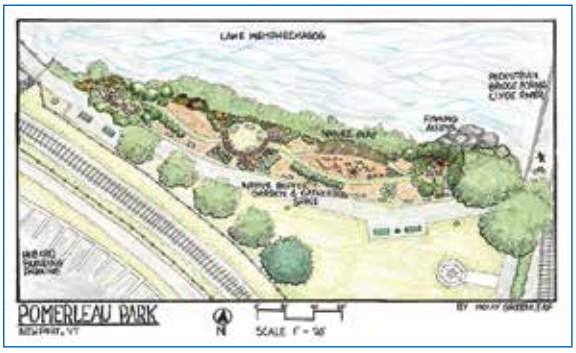
To further complicate matters, some of the farm practices used to prevent soil erosion can promote subsurface phosphorus loss. For example, cover crops are extremely effective at holding soil over the winter, but the freezing and thawing of the plant cells in early spring releases soluble phosphorus. No till agriculture also prevents erosion, but increases development of soil macropores through which soluble phosphorus might flow.

The Lake Champlain Basin Program's recently passed budget includes funding for two projects related to tile drainage. One is a study of practices that can reduce phosphorus loading from already existing tile drainage systems. The second is an assessment of the extent of tile drainage in one sub-watershed of St. Albans Bay. Currently there is no tracking system for when, where, or how much tile is installed. LCC will have direct oversight of these two projects through our role on the Technical Advisory Committee. The results will be important for the legislature as they seek more information on tile drains in upcoming sessions.

Article produced by the Lake Champlain Committee (LCC). For over fifty years LCC has used science-based advocacy, education, and collaborative action to protect and restore water quality, safeguard natural habitats, foster stewardship, and ensure recreational access. For more information contact LCC at www.lakechamplaincommittee.org, lcc@lakechamplaincommittee.org, or 208 Flynn Avenue - BLDG 3 - STUDIO 3-F, Burlington, VT 05401.

Buffers for Blue Lakes: Grant Activities in 2014

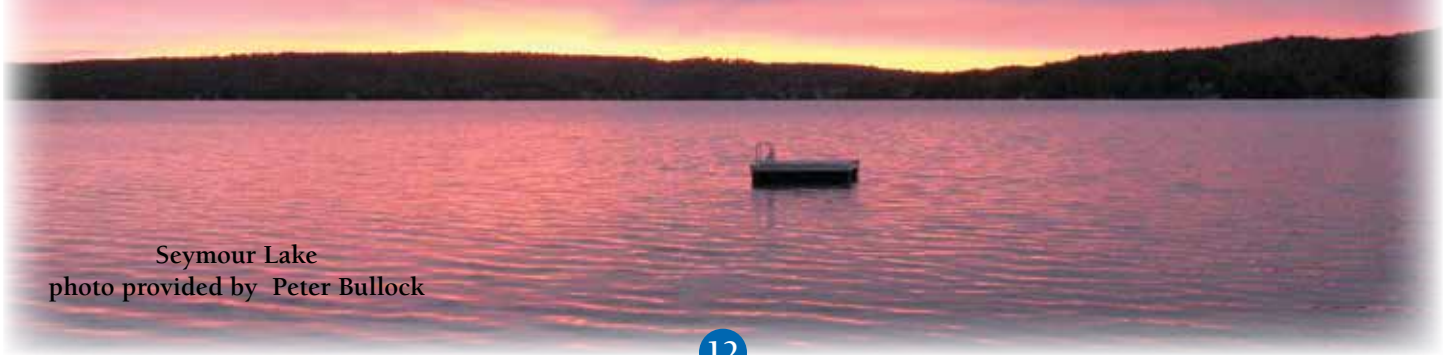
Judy Davis, Board Director (Little Hosmer Pond)



FOVLAP's Fish and Wildlife Watershed Grant and Ecosystem Restoration Grant projects for 2014 were once again designed to encourage lakeshore property owners to use native plants to improve and restore shoreland and shallow water ecosystems. The Watershed Grant followed the same model that had been used for the previous two years. We worked with lake association volunteers on 8 lakes around Vermont to present a Healthy Shores Healthy Waters workshop and to deliver blueberry plants, planting materials, and planting information to participants who wanted to plant blueberries. Over 50 property owners planted 4 blueberry bushes on their shores, using special planting mixes to acidify the soil. Information about planting blueberries is available on the FOVLAP website vermontlakes.org. The Ecosystem Restoration Grant (ERP) is a new FOVLAP grant that spans 2014 and 2015. Once again we worked with lake association volunteers to organize this project. We worked with 9 properties on Seymour and Echo Lakes to plant larger native plant buffers, create no-mow zones, build infiltration steps, and install driveway culverts. Working with lake association volunteers – including Peggy Barter at Seymour Lake -- and with the Lake Wise program staff – Amy Picotte and Eddie Haynes – we identified properties that would benefit from added vegetation and other best management practices to improve lakeshore ecosystems. Property owners contributed $250 for any work done on their property, and the grant contributed $1,000. Lake Wise staff and ecological landscape design consultants suggested planting ideas and other best management practices that were then installed by a team of Vermont Youth Conservation Corps workers. New informational materials developed as part of this project will be appearing on the FOVLAP website over the next two months. The grant will provide support for an additional 10 projects on lakeshore properties in 2015. The ERP Grant funds also supported work done to generate ideas for improving lakeshore vegetation in Newport in two areas: Pomerleau Park on Lake Memphremagog and Gardner Park, at the mouth of the Clyde River.

2015 Blueberry Project – supported by a Fish and Wildlife Watershed Grant

This year FOVLAP will be working with lake associations who want to organize their own blueberry planting projects. FOVLAP can provide educational materials, support your lake association with our Healthy Shores Healthy Lakes workshop, and help you find plants and other resources so that you can encourage planting on your lake shores. We will not be subsidizing the purchase of blueberry plants, but we can show you how to organize your own native plant or blueberry planting project. For more information contact Judy Davis at davisjud@gmail.com



Seymour Lake
photo provided by Peter Bullock

Champlain in Alburgh
poto provided by Valerie LeClair Gibbons

Harvey's Lake
photo provided by Jackie Sprague

Lake Morey at Sunrise
photo provided by Greg Allen

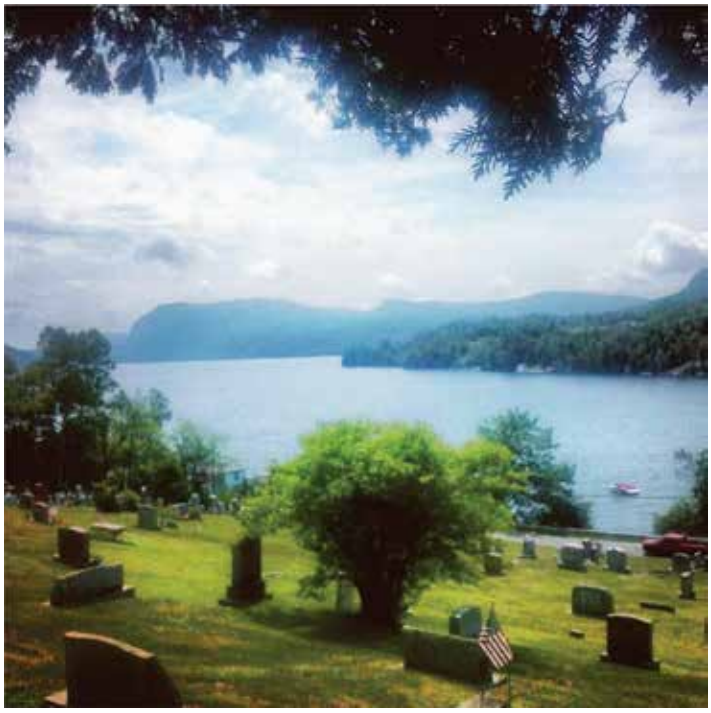
Echo Lake circa 1956
photo provided by Erik Lessing

Seymour Lake in November
photo provided by Jan Selby

Pond in Mendon
photo provided by Mikie Perkins

Metcalf Pond
photo provided by Valerie Gibbons

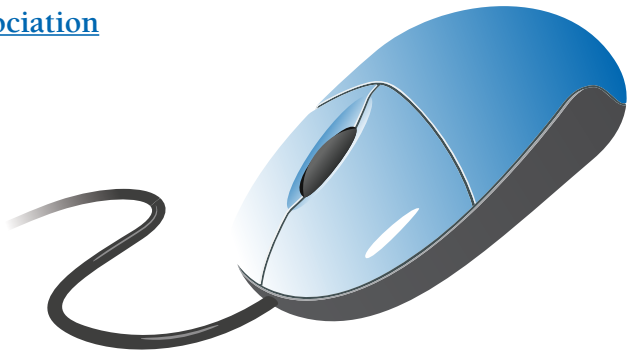
Lake Willoughby
photo provided by Art Brooks



Lake Willoughby
photo provided by Shawna Gagnon

Vermont Lake & Pond Association Websites

Bald Hill: www.westmoreassociation.org
Bomoseen: http://www.lakebomoseen.mylaketown.com
Calais: http://www.calaisvermont.gov
Carmi: http://www.lakecarmi.org
Caspian: http://www.greensboroassociation.org
Cedar: http://www.cedarlakevt.org
Champlain: http://www.lakechamplaincommittee.org
    Northern Lake Champlain: http://northernlakechamplain.com
    Champlain - St. Alban's Bay: http://www.saintalbanswatershed.org
Dunmore/Fern: http://ldfla.com/LakesAlive.html
Echo: http://www.echolakeassociation.net
Eden: http://www.edenvt.org/
Elmore: http://www.elmorevt.org/community/lake-association
Fairlee: http://blog.lakefairlee.org
Green River Reservoir: http://www.fgrrvt.org
Groton: http://www.grotonpond.com
Harvey: http://www.lakeharvey.com
Hortonia: http://www.lakehortonia.org
Iroquois: http://www.lakeiroquois.org
Job: www.westmoreassociation.org
Joe's : http://www.joespondvermont.com
Long: www.westmoreassociation.org
Maidstone: http://www.maidstonelake.org
Memphremagog: memphremagogwatershedassociation.com
    http://www.memphremagog.org/en/index.php
Miles: http://milespond.com
Morey: http://www.lakemorey.org
Neal Pond: http://www.nealpondvt.org
Ninevah: http://www.ninevahfoundation.org
Paran: http://www.lakeparan.org
Parker: http://www.lakeparker.org
Peacham: http://peachampondassociation.org
Raponda: http://raponda.org
Rescue: http://www.lakerescue.org
St. Catherine: http://www.lakestcatherine.org
Salem: http://www.Salemlakesvt.org
Seymour: http://www.seymourlake.org
Shadow: http://www.shadowlakeassociation.org
Star: http://www.mountthollyvt.org/community-organizations/star-lake
Willoughby: www.westmoreassociation.org

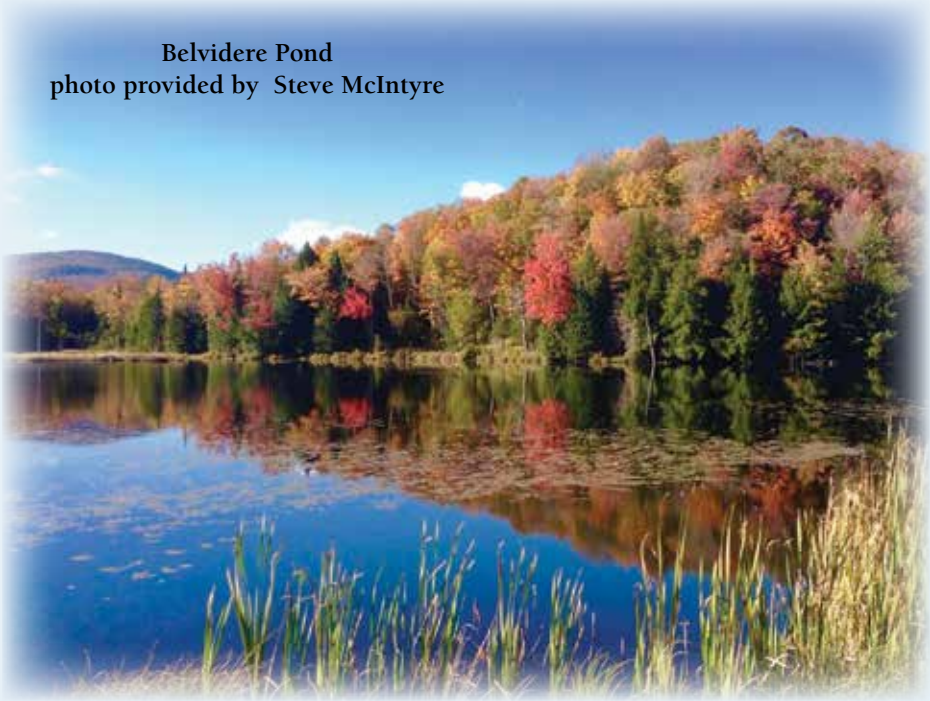


NEWSLETTER

P.O. Box 766
Montpelier, VT 05601

Officers of the Federation
Jackie Sprague, President (Harvey's Lake)
Bruce Durgin, Vice-President (Lake Morey)
Tracey Shadday, Secretary (Echo & Seymour Lakes)
Bruce Barter, Treasurer (Seymour Lake)

Greg Allen, Director (Lake Morey)
Art Brooks, Director (Lake Willoughby)
Andy Dales, Director (Caspian Lake)
Judy Davis, Director (Little Hosmer Pond)
Lori Fisher, Director (Lake Champlain)
Don Hendrich, Director (Lake Memphremagog)
Mary Jo Teetor (Lake St. Catherine)
Beth Torpey, Director (Lakes Seymour & Willoughby)
Donald Weaver (Northern Lake Champlain)



Belvidere Pond
photo provided by Steve McIntyre