



NEWSLETTER

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

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NUMBER 14

Why Maine's Mandatory Shoreland Zoning Act Standards Work

By Kellie Merrell, Aquatic Ecologist, Lakes and Ponds Management and Protection Section of the Vermont Agency of Natural Resources Department of Environmental Conservation

In 2011, I collaborated with Maine Department of Environmental Protection to determine if their statewide minimum Mandatory Shoreland Zoning act standards worked to protect aquatic habitat and aquatic life. We found the standards not only do so, but they do so in a manner that meets Vermont's Water Quality Standards. Despite Maine's law having been in effect for over 40 years, our study was the first to find that it worked to protect aquatic habitat and aquatic life. What was remarkable to me was that they managed to strike the right balance between private property rights and protection of the public resource. How did they know? But when I looked at their minimum standards and thought about each part of it, I realized that every part had a function. Sometimes laws are well intentioned, but their execution loses the intent or the science behind the intent is lost. Not so with Maine's Mandatory Shoreland Zoning Act. There is nothing in it that doesn't work toward the end goals of protecting the lake while also supporting each individual property owner's access and enjoyment of it.

So, let's take each of the seven parts of Maine's standards and look closely at how they function.

1) Structures must be set back 100 feet from the lakeshore. Structures create what is called impervious surfaces. You want your roof to be an impervious surface; it keeps you dry by diverting all the rain off your home or camp. Rain that falls on impervious surfaces becomes a force to be reckoned with – things that get in the way get picked up and washed downhill. Downhill on a lakeshore is usually toward the lake. Whatever is between the house, road, deck, patio, and the lake has the potential, with enough rainfall, to be washed into the lake. If that includes lawn, bare

ground, or imported beach sand then sediment and nutrients, including phosphorus, get washed into the lake. Those are considered pollutant discharges by the Clean Water Act.

Why 100 feet? That seems like a lot, but given that sheet flow of water moves fast off impervious surfaces in a downpour and needs some time to slow down and infiltrate into the ground, it is pretty amazing that 100 feet is enough. In some cases, where the slope is steep or the soils are particularly erosive, more than 100 feet is needed. However, how far away is reasonable to ask a property owner to set back their structure? Over the years the compromise has fixed on 100 feet. With climate change predicting more heavy rainfall events, 100 feet may no longer be enough. However, our study of Maine sites determined that it was enough for now.

- 2) Within each 25-foot by 50-foot plot between the structure and the lake, openings in the canopy shall be limited to 250 square feet or less. Why does Maine require an intact tree canopy? A canopy is made up of lots of leaves, and when raindrops hit these leaves, the impact of each raindrop on each leaf slows the force the rain brings, the leaves give way some, but bounce back to intercept the next raindrop and the next. The raindrops are kept segregated and they are slowed down. Creating openings in the canopy defeats this function.
- 3) The branches on the bottom one-third of the trees can be pruned to afford views of the lake. The top two-thirds of branches must remain, because they intercept and further reduce the force of the raindrops that hit or make it through the canopy.

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Why Maine's Mandatory Shoreland Zoning Act Standards Work (cont'd from page 1)

Think about if you have ever been hiking or walking in the woods when it rains. There have been many times I have made it to a clearing or parking area when hiking to find that it was not raining anymore, but in the woods it sounded like it was. That was the raindrops that had been prevented from hitting the ground, slowly dripping off the leaves and branches in the canopy.

- 4) Vegetation under three feet tall and groundcover needs to remain and not be cut. What function does this give? It further dampens the energy of falling rain and protects the underlying spongy duff layer. The duff is made up of leaf litter that functions like a sponge for the rain that does make it to the ground. The land remains uneven, so water has time to infiltrate, further serving to keep those raindrops from finding each other and washing in a sheet to the lake like they do on an even lawn.
- 5) Other parts of Maine's law serve to continue to maintain the tree canopy. While saplings greater than three feet tall can be cut, at least five within each 25-foot by 50-foot plot between the lake and structure must be retained to provide for recruitment of new trees when the older ones die or are cut for views. It is up to the landowner to decide where in that plot they want the trees to regenerate to optimize their views over time.
- 6) Trees can be cut for maximizing the view of the lake. Within each 25-foot by 50-foot plot, 24 points of trees need to be maintained. This system gives the landowner the flexibility of managing their views best, while still ensuring enough trees remain to maintain the functions of the canopy. Trees of different diameters at breast height get different points. A two-to-four-inch diameter tree is worth one point, a four-to-eight inch diameter is worth two points, an eight-to-ten inch diameter is worth four points and a tree greater than twelve inches in diameter is worth eight points.
- 7) The path to the lake from the structure should meander and not be wider than 6 feet wide from tree trunk to tree trunk. Paths can serve as direct conduits of the water from the impervious surfaces of the roof, patio, deck, and driveway. If a straight shot to the lake, they function as bowling alleys for the water and pollutants to make their way to the lake. Making the path meander encourages runoff to go into the woody duff layers to be absorbed. Limiting the width to six feet limits the likelihood that an opening in the canopy would be created, letting rainfall beat down on the path and wash down into the lake.

The seven elements of Maine's Mandatory Shoreland Zoning Act standards combine to protect the lake from pollutants carried by runoff from impervious surfaces created by the roof, driveway, deck, and patio of the lakeshore residence. These seven elements also serve to provide critical habitat to the life that lives in the lake. The leaves, sticks, branches, and entire trees that fall into the lake provide substrate on which microorganisms that make up aufwuchs (fish food) can grow, structure for frogs to attach their eggs, basking sites for turtles to moderate their body temperature, and places for young fish to find refuge from predators. The trees provide shade, protecting eggs from high temperatures and fish from avian predators. Less nutrients and light help prevent nuisance aquatic plant growth. Less sediment runoff keeps fish and frog eggs from being smothered, so oxygen keeps them alive.

If you are interested in learning more about the habitat features of the littoral zone and how Maine's Mandatory Shoreland Zoning Act standards work to protect them, I encourage you to read the report we released in March entitled "Determining if Maine's Mandatory Shoreland Zoning Act Standards are Effective at Protecting Aquatic Habitat" (http://www.anr.state.vt.us/dec/waterq/lakes/docs/lp_mainezoning.pdf).

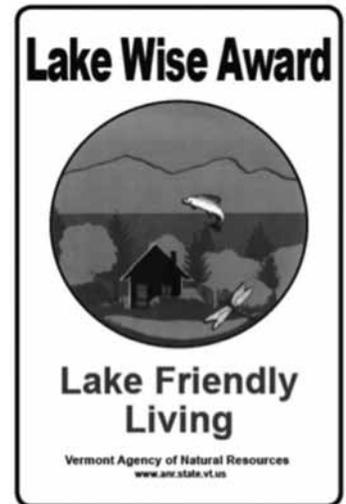
Editor's Note: The theme of this issue is shoreland protection. During summer 2013, we will continue to elaborate on this theme through our website (www.vermontlakes.org) and at our Annual Meeting in July.

The Vermont Lake Wise Program

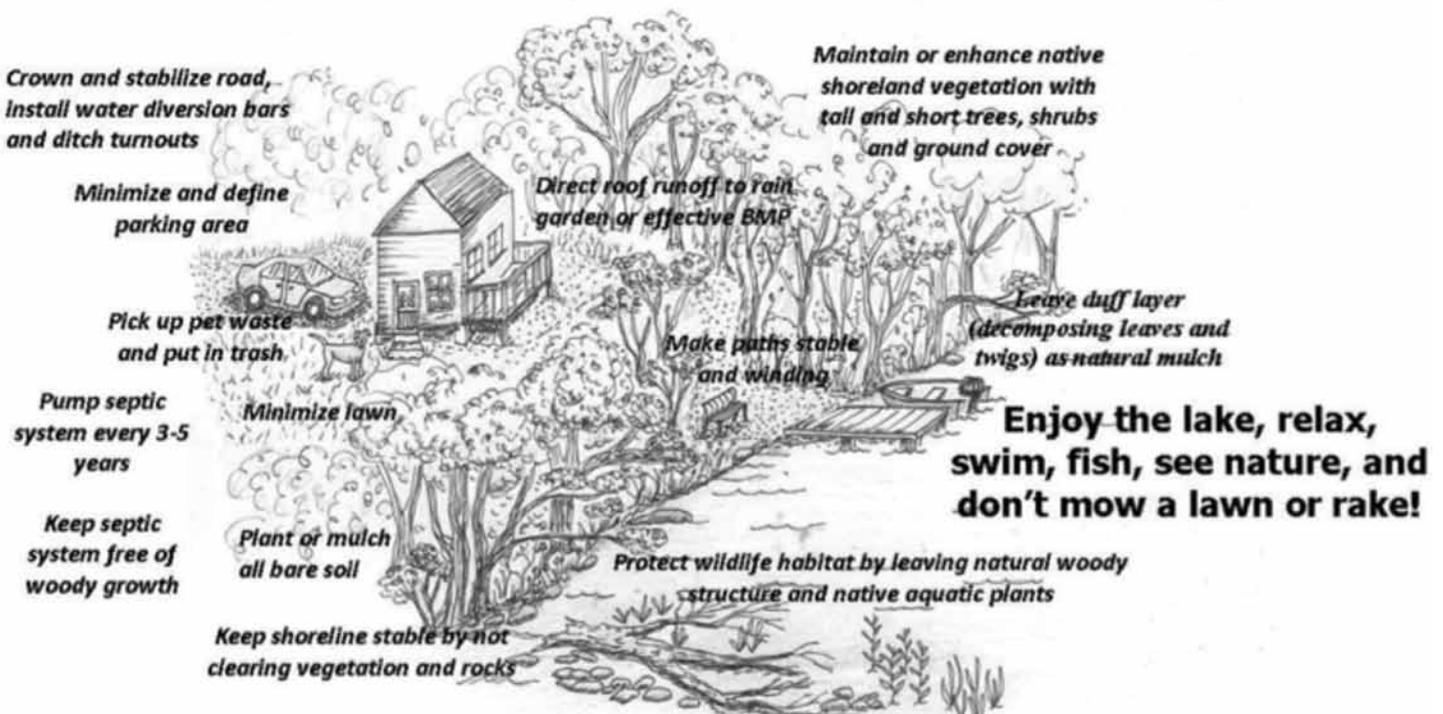
By Amy Picotte, Environmental Scientist, Lakes and Ponds Management and Protection Section of the Vermont Agency of Natural Resources Department of Environmental Conservation

The Lake Wise Program is offered through the Vermont Lakes and Ponds Section to provide trainings in lake friendly shoreland management to lake associations and shoreland property owners. Participants receive technical assistance for fixing erosion and dirty runoff problems, thereby protecting lake quality and wildlife habitat. The goal of Lake Wise is to encourage lake friendly landscaping practices that improve or maintain water quality, in-lake and on-shore habitat, and flood resiliency.

Lake Wise participants who manage their shores with good practices in the four categories of driveway, structures and septic systems, recreation areas, and shorefront will receive the Lake Wise Award and Beautiful Sign. This sign can be proudly displayed on model lake friendly properties. Informational Lake Wise signs can also be posted at public areas around the lake to alert others to look for the Lake Wise Award sign on well-managed properties. Lake Associations are also awarded the “Gold Award,” depending on the percentage of shoreland owners participating in Lake Wise.



This Property is Lake Wise! Typical of many Vermont lakeshore homes, this house was built too close to the lake to allow for the best standard of lake protection – a 100 foot wide vegetated shore – but fortunately, this landowner is using all the lake friendly practices below to protect the lake.



Vermont Lake Wise Program

FOVLAP Grant-Funded Activities in 2012 and 2013

New Watershed Grant for 2013 will focus on Buffers for Blue Lakes by encouraging planting of edible Blueberry Buffers

By Judy Davis, FOVLAP Director

FOVLAP has been working on grant-funded education and outreach projects for several years, and we are delighted to be able to continue this work through grants from Green Mountain Coffee Roasters, the Vermont Community Foundation, and Vermont Watershed Grants.



In 2012 FOVLAP continued work on our 2011 Vermont Agency of Natural Resources Vermont Watersheds Grant Program, and received two new grants – one from Green Mountain Coffee Roasters and one from the Vermont Community Foundation. All of our grant-based work involves lake protection education and outreach.

As part of our Green Mountain Coffee Roasters grant, we worked with other watershed and lake groups in 2012 to offer workshops focused on planting vegetated shoreland buffers and exploring shallow water ecosystems. We are also developing new workshop materials with this grant and with our grant from the Vermont Community Foundation.

As part of our 2011 Vermont Watershed Grant, we developed new materials to encourage lake property owners to plant vegetated buffers on their shores. The new materials are available on our website under the Resources menu – materials for our Buffers for Blue Lakes campaign. Your lake association can download pdf versions of the materials from the web and we hope you will encourage lake property owners to use the resources on the website to help them establish vegetated buffers. One of our first outreach activities was to pilot a blueberry planting project on Lake Seymour.

We also received a Vermont Watershed Grant for 2013, which will allow us to develop and refine our materials and offer Buffers for Blue Lakes workshops on several lakes this summer. We are actively looking for lake associations that would like to partner with us to offer buffer planting workshops and pilot projects. FOVLAP can offer buffer planting workshops, provide technical and planting information and expertise, and help defray the cost of plantings for up to five properties on your lake. Please contact Judy Davis at davisjud@gmail.com if your Lake Association is interested in this project.



Vermont Shoreland Protection Legislation

By Ginny Garrison, Retired Chief of the Lakes and Ponds Management and Protection Section of the Department of Environmental Conservation, Vermont Agency of Natural Resources and Past Secretary of the Federation of Vermont Lakes and Ponds

The Status

A “shorelands protection” bill was introduced in the Vermont Legislature in January 2013. After a well-attended public hearing and considerable testimony before the House Fish, Wildlife, and Water Resources Committee, the original bill was rewritten and H.526, as it is now called, passed the House of Representatives on March 28, 2013. The bill then moved to the Senate, where the Senate Natural Resources and Energy Committee heard testimony during April. In late April the Senate leadership decided to hold the bill over for the summer and take the concept of shoreland protection around Vermont this summer for public discussion.

The Senate Natural Resources and Energy Committee and the House Fish, Wildlife, and Water Resources Committee, in conjunction with the Vermont Agency of Natural Resources (VTANR), plan to hold several public meetings throughout Vermont starting mid-summer and ending in September. The objectives are to let the public know how the requirements under legislation like H.526 would work and to gather public input.

The current plan is for the Agency of Natural Resources to describe the science behind the initiative, outline what other states have done in terms of shoreland protection, and sketch out how a bill like H.526 could be implemented on the ground. Locations and dates of the meetings have not yet been determined.

When the legislature reconvenes in January, the Senate is expected to continue consideration of shoreland legislation.

Why Regulation?

As it is currently drafted, H.526 finds that Vermont’s lakes are among the State’s most valuable and fragile economic and natural resources, and the protection of naturally vegetated shorelands adjacent to lakes is necessary to prevent water quality degradation, maintain healthy habitat, and promote flood resilience.

A lake or pond of more than 10 acres is located in 184 of Vermont’s 251 municipalities. However, only 48 municipalities have shoreland zoning that requires vegetative cover.

In order to fulfill the state’s role as trustee of its waters and promote public health, safety and the general welfare, it is in the public interest for the General Assembly to establish shoreland protection standards for impervious surface and cleared area in the lands adjacent to the state’s lakes.

What Would Be Regulated?

There has been considerable concern and misunderstanding about what activities would be regulated under H.526. H.526 does not propose to regulate any existing structures, land use, or other activities along lakeshores. It does propose to regulate new construction and new clearing of vegetation as follows.

The bill establishes a “protected shoreland area” within 250 feet of the mean water level of lakes larger than 10 acres. Beginning January 1, 2015, a permit from VTANR would be required to do either of the following two activities in the protected shoreland area:

- (1) construct more than 500 square feet and less than one acre of **new** impervious surface [*note: a stormwater permit is already required if an acre or more of impervious surface is created*] or
- (2) create more than 500 square feet of **new** cleared area.

Existing impervious surface or cleared area could be expanded by up to 500 square feet without obtaining a permit, provided that the aggregate amount of all expansion does not exceed 20 percent of the protected shoreland area of the lot.

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President's Corner – Jackie Sprague

Welcome to spring! I always feel summer is near when the ice is off Harvey's Lake (shown below). We are fortunate to live on a lake year round and it is indeed a pleasure and an honor to be part of the Federation of Vermont Lakes and Ponds. The Federation of Vermont Lakes and Ponds or FOVLAP is a growing organization representing lake and pond associations around the state. The board is fortunate to have the support and guidance of the staff at the Vermont Division of Environmental Conservation's Watershed Management Division for expertise and outreach education.

FOVLAP received grants in 2011 and 2012 from the Vermont Watershed Grants Program, Green Mountain Coffee Roasters, and the Vermont Community Foundation to conduct education and outreach projects. A new Vermont Watershed Grant for 2013 will enable us to expand our Buffers for Blue Lakes campaign by offering buffer planting workshops and pilot projects that encourage planting of edible Blueberry Buffers.

Another project that FOVLAP is supporting is the Lake Wise Program offered through the Vermont Department of Environmental Conservation's Lakes and Ponds Section. Lake Wise seeks to improve or maintain water quality and in-lake and on-shore wildlife habitat by encouraging lake-friendly shoreland management practices.

More information about these programs can be found in articles elsewhere in this newsletter. I urge lake associations to take advantage of FOVLAP's Buffers for Blue Lakes workshops and the Lake Wise Program to restore shorelands on their lakes and improve water quality.



REMINDER: *You do not want to miss!*

Annual Meeting

Monday ~ July 22, 2013 ~ The Steak House
at 1239 US Route 302 – Berlin (Barre-Montpelier Road)

Check the FOVLAP website (www.vermontlakes.org) for more details about all of the events listed above.



The Federation of Vermont Lakes and Ponds

www.vermontlakes.org

The Federation of is dedicated to the conservation of Vermont lakes and ponds through development and promotion of environmental quality standards.

Membership Application

Membership Type:	Amount:
Individual Membership (\$25.00/year)	\$ _____
Lake or Pond Association Membership (\$50.00/year).....	\$ _____
Business Membership (\$75.00/year).....	\$ _____
Patron Membership (\$100.00+/year).....	\$ _____
Please consider an additional donation to support our programs.....	\$ _____
Total Enclosed	\$ _____

Name _____

First Mailing Address Effective from (mm/dd)_____ to (mm/dd)_____

Street (or P.O. Box) _____

City _____ State _____ Zip _____

Telephone _____

Second (if applicable) Mailing Address Effective from (mm/dd)_____ to (mm/dd)_____

Street (or P.O. Box) _____

City _____ State _____ Zip _____

Telephone _____

E-mail Address _____

Additional Lake or Pond Association Information

Web site address: _____

E-Mail Address _____ ;

President _____

Vice-President _____

Secretary _____

Treasurer _____

Please make your check to "FOVLAP"

Mail to: FOVLAP, P.O. Box 766, Montpelier, VT 05601-0766

OR: FOVLAP, c/o Bruce Barter, P.O. Box 174, Morgan, VT 05853-0174

The Federation is a 501(c)(3) non-profit organization. Therefore, your membership dues and donations are tax deductible in accordance with I.R.S. regulations.

E-mail: **fovlap@vermontlakes.org** for general information or questions

E-mail: **treasurer@vermontlakes.org** for membership information or questions



Vermont Shoreland Protection Legislation (cont'd from page 5)

How Would Regulation Work?

VTANR would be required to adopt a general permit to authorize construction of impervious surface or creation of cleared area that presents low risk of harm to the water quality of surface waters or protected shoreland areas. Individual permits would be required for higher risk activities. Coverage under a general permit or individual permit would be for an indefinite term, provided that the permittee complied with the terms of the permit and took no subsequent action for which a permit is required.

VTANR would be required to adopt rules that establish standards for the construction of impervious surface or the creation of cleared area in a protected shoreland area by January 1, 2015. The standards would need to:

- accommodate the construction, creation, or expansion of impervious surface or cleared area in protected shoreland areas;
- establish best management practices for the construction of impervious surfaces or the creation of cleared area in a protected shoreland area;
- manage vegetative cover to ensure some level of the required cover is maintained;
- allow reasonable use of the area subject to a vegetative cover requirement for construction, creation, or expansion of impervious surface or cleared area;
- minimize and mitigate the creation of impervious surface or cleared area;
- minimize and mitigate the impacts of impervious surfaces or cleared areas;
- include standards for designing and maintaining driveways, patios, and similar impervious surfaces so that stormwater runoff is minimized;
- authorize the establishment and maintenance of paths, recreational space, and gardens, provided they are designed and managed to minimize stormwater runoff; and
- authorize the construction and maintenance of accessory structures in a protected shoreland area subject to size requirements established by VTANR.

Municipal Delegation

VTANR would be required to delegate permitting authority to towns with a shoreland bylaw or ordinance adopted on or before January 1, 2015, provided that the town's bylaw/ordinance requires vegetative cover or other best management practices designed to meet certain goals and sets forth conditions on the construction and expansion of existing impervious surface or cleared area.

VTANR could delegate permitting authority to towns that adopt a shoreland bylaw or ordinance after January 1, 2015, provided that the town's bylaw/ordinance is at least as stringent as the shoreland protection standards adopted by VTANR.

Municipal delegation would be accomplished through an agreement between VTANR and the delegated town. Among other things, the town would have to agree to take timely and appropriate enforcement actions, commit to reporting annually to VTANR, and agree to cure any defects in its bylaw/ordinance or in the administration or enforcement of the bylaw/ordinance upon notice of a defect from VTANR. The delegation could be revoked. VTANR and the town could agree, in instances where a delegated town did not or could not address non-compliance, that VTANR, after consultation with the town, could institute enforcement proceedings for failure to comply with the lake shoreland protection standards.

Exemptions

Towns that did not qualify for delegated permitting authority would not require a permit for construction, creation, or expansion of impervious surface or cleared area if the project area had been designated by municipal bylaw for development according to historic development patterns or for redevelopment of land that had impervious surface or disturbance prior to July 1, 2013 by industrial or urban development. The town must have adopted a shoreland bylaw or ordinance or implemented best management practices intended to prevent lake water quality degradation, minimize or mitigate disturbances in shorelands, or minimize or mitigate damage from floods and erosion.



Under specified conditions, silvicultural activities, agricultural activities, state and municipal transportation infrastructure, permitted wastewater systems and potable water supplies, permitted stormwater treatment, electric utility projects and utility lines, and dredge or fill activities permitted by the U.S. Army Corps of Engineers would not require a permit.

Other Requirements

Intra-Agency coordination with VTANR's Lakes and Ponds Section would be required when a wastewater system, potable water supply, stormwater discharge, or stormwater treatment facility is being permitted in a protected shoreland area.

The shoreland protection standards adopted by VTANR would be in addition to existing municipal bylaws and ordinances. Proposed construction of impervious surface or creation of cleared area within the protected shoreland area would need to comply with all relevant existing municipal, state, and federal requirements.

A lake shoreland protection permit would create a presumption before an Act 250 district commission that the permitted activity satisfies the requirements of subdivision (a)(1)(F) under Act 250 for shorelines in a protected shoreland area.

Rulemaking

VTANR would be required to begin rulemaking by September 1, 2013 to establish standards for the construction, creation, or expansion of impervious surface or cleared area in protected shoreland areas of lakes. [Note: this date and subsequent dates are no longer valid.]

VTANR would have to engage in an expanded public participation process with affected stakeholders and other interested people in a dialogue about intent, method, and content of the rules. The use of workshops, focused work groups, dockets, meetings, or other forms of communication is encouraged to meet the participation requirements.

On or before April 15, 2014, VTANR would have to submit a copy of the rules to the House Fish Wildlife and Water Resources Committee and to the Senate Natural Resources and Energy Committee along with a summary of the process followed in developing the rules.

The full text of H.526 is available for review on Vermont's legislative website (<http://www.leg.state.vt.us/docs/2014/bills/Intro/H-526.pdf>).



Lake Fairlee Restores Banks and Protects Shoreline with Native Vegetation

The Lake Fairlee Association, with substantial in-kind help from the Town of Thetford road crew and local volunteers, restored a collapsing bank along the edge of the lake. The road crew did some challenging work securing the bank with the assistance of Alan May, the Vermont Better Backroads technician. After the Lake Fairlee Association obtained a state authorized Shoreland Encroachment Permit and installed a preventative silt screen in the lake, the road crew deposited a foundation of stone and a slope of screened topsoil. Volunteers from the lake community and the Thetford & West Fairlee Conservation Commissions, with professional input from Ben Copans, Vermont DEC Watershed Coordinator for Lake Fairlee, then planted a vegetative buffer of native woody and herbaceous vegetation along approximately 100 feet of shoreland to provide a permanent hold on the new bank. The restored bank will provide protection for this section of the lake in terms of absorbing unwanted runoff, preventing erosion, and ultimately improving water quality. In

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Lake Fairlee Restores Banks and Protects Shoreline with Native Vegetation (cont'd from page 9)

In addition, such native vegetation will provide desirable wildlife habitat and enhance the natural beauty of the shoreline. This Lake Fairlee shoreland improvement project was made possible by grant funding from the Better Backroads Program - a program in its 15th year of helping towns and private organizations keep sediment and nutrients out of our waterways with better maintenance practices.

It is hoped that this type of visible community project will help to heighten awareness about the inherent value of a naturally buffered shore along any type of water body or wetland, especially when the waterway is adjacent to a road. The water quality and ecosystem of Vermont's lakes, rivers, inlet brooks and streams, wetlands, and whole watersheds can be dramatically compromised by unwanted nutrient and sediment runoff, erosion, and removal of the naturally occurring trees and shrubs.

Note: The Lake Fairlee Association received a Vermont Watershed Grant to continue their restoration work. To read about more recent projects, visit their blog (<http://blog.lakefairlee.org/>).

Warmer Climate Leads to Change in Seasons for Vermont Landscapes

By Molly Moran, a St. Michael's College senior majoring in Environmental Studies, and Jacob Ebersole, a Dartmouth College junior with majors in Environmental Studies and Economics

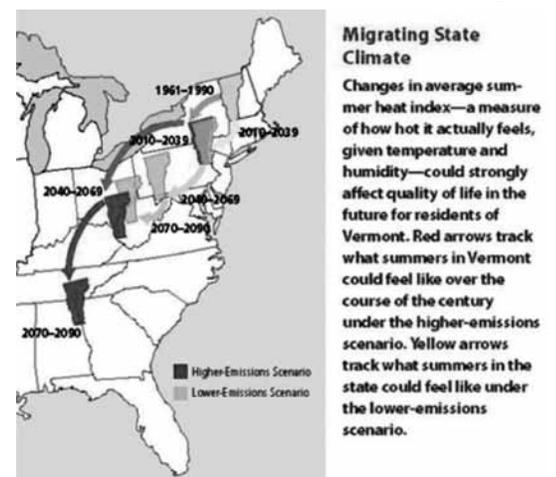
Editor's Note: This article was reprinted, with permission, from the May 2013 newsletter of the Vermont Climate Change Team (<http://www.anr.state.vt.us/anr/climatechange/Newsletter.html>). Predictions of climate change models make shoreline protection measures increasingly important, since vegetation helps protect our lakes from the impacts of extreme weather events and counteracts warming water temperatures by providing shade for shoreline habitats.

In recent years, the devastating impacts of extreme weather events have alerted many Vermonters to the dangers presented by climate change. While these storms made a very sudden and destructive mark on our state, climate change has been gradually recreating Vermont's landscape for decades.

Many Vermonters are beginning to notice changes in the four distinct seasons that define our state. In the past 50 years, mean winter temperatures in Vermont have risen about 4.6°F, while summer temperatures have risen approximately 2.8°F. Annual snowfall has been steadily decreasing, while spring has been arriving earlier. Continued global emissions of greenhouse gases will perpetuate these trends for decades to come. The image on the right provides a striking representation of what Vermont's climate might look like in the future. If the current high rate of global emissions continues, Vermont's climate is projected to be similar to that of northern Georgia by the end of the century. Even under a reduced emissions scenario, our climate is likely to feel similar to that of southern Ohio.

Either scenario presents a serious threat to the seasonal changes that are so central to our state's identity, ecology, and economy.

The length of the maple-sugaring season in Vermont has shortened by 10% in the past 40 years. Continued warming trends would threaten the viability of the industry. Winter recreation activities including skiing,



snowmobiling, and ice fishing are similarly vulnerable to a warming climate. Many ski resorts have already noticed a decline in the reliability of snow conditions in the early season. The colorful foliage that characterizes Vermont's autumn landscape will also be threatened by climate changes expected in upcoming decades. All of these vulnerabilities make it imperative that Vermonters continue to investigate climate adaptation strategies and aggressively pursue reductions in state greenhouse gas emissions.

New Brochure about Loons and Lakeshores Available

*By Eric Hanson, Vermont Loon Recovery Project (VLRP) Coordinator and
Vermont Center for Ecostudies Conservation Biologist*

Loons are back and doing well in Vermont thanks to the efforts of volunteers, boaters, and lakeshore owners. But to keep them back, we need to think long-term about the health of our lakes and lakeshores that support the **BASE OF THE FOOD CHAIN**. In a new brochure, the Vermont Loon Recovery Project (VLRP) highlights the wildlife that is found in the shallow-water and near-shore communities from dragonflies and fish eggs to warblers and green frogs.

We highlight several studies to show what happens to wildlife and fish populations when shorelines are turned to lawns. For example, removing woody debris and logs on an undeveloped lake caused the perch catch rates to decline by 3-4 times with no other changes to the shorelines. Without trees to fall into the water, the perch suffer. The woody debris is critical both for the food that perch eat but also for habitat for the perch itself. In another study on fish nests, almost all fish nests were found along undeveloped and lightly developed shorelines. No fish nests were found along highly developed shorelines. Anglers and loons both suffer.



People often think that “my lawn” is so small that it does not have any impact on the lake. Multiply that one lawn by 10 or 50 or 150 and the effect grows. Stewardship can be simple by just letting the lawn grow, transplanting shrubs and trees from the nearby woods, and maintaining a path to the lake. Keep the lawn up by the camp, but let as much shoreline re-vegetate as possible. FOVLAP and the Vermont Lakes and Ponds Section have lots of stewardship guidelines for shorelines. This brochure helps make the connection between this stewardship and the wildlife that depend on it, including loons.

If your lake association would like paper copies to distribute and/or mail as well as a pdf version for distributing via emails and putting on websites, please contact Eric Hanson, Vermont Center for Ecostudies, VLRP Coordinator, ehanson@vtecostudies.org or call 802-586-8064.



NEWSLETTER

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Supporting Natural Communities on the Shores of Lake Eden

By Perry Thomas, FOVLAP Director

As many readers know, my family maintains woodlands on the North Point of Lake Eden, with a rustic cabin perched on the ridge.

From our lakeside picnic area (left), the cabin is just a short walk up birch log steps (right).



Our “let it grow” approach to landscaping is rewarded by visits from diverse wildlife. Loons fish off the peninsula's shores. One spring we surprised a Hermit Thrush at the edge of our picnic grove. During another visit we tracked a shy black bear up our path.

Perhaps most notable is the wildlife we do not see on our land--we have no problem with geese. Instead, Lake Eden's resident Canada Geese congregate in areas where the lakeshore has been cleared for lawns.