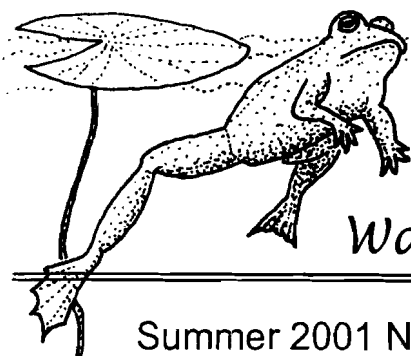
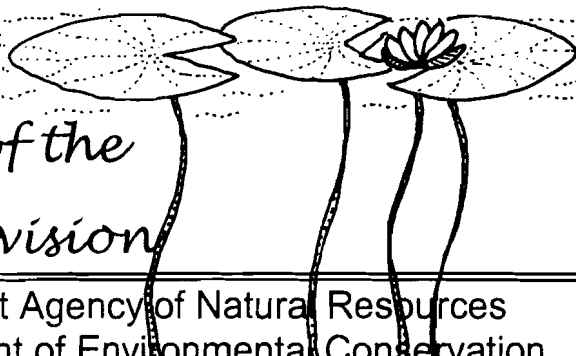


Out of the Blue



A Newsletter of the Water Quality Division



Summer 2001 No. 22

Vermont Agency of Natural Resources
Department of Environmental Conservation

Splash!

Lake Lovers Dive Into Lake Issues at the New England Lakes Conference

More than 140 lake representatives from across New England met at the 8th annual New England Chapter of the North American Lake Management Society (NEC-NALMS) Conference held on June 1-2, 2001 in Montpelier, Vermont. The conference, sponsored by state, federal, and non-profit groups and A LOT of volunteer time and energy, focused on shared responsibility for shared lakes across New England.

Events started on June 1 with five statewide workshops to choose from. On June 2, three concurrent sessions were held throughout the day and covered a variety of issues ranging from toxic algae to community watershed issues such as building relations between lake associations and town officials. Also included were sessions on how to increase public awareness of lake issues in order to inspire improved public involvement in lake protection; fishing derbies; aquatic nuisance species; zooplankton studies; loons and mercury; as well as others.

See "NEC-NALMS" page 6

Watershed Planning is Underway in the Lamoille River Watershed

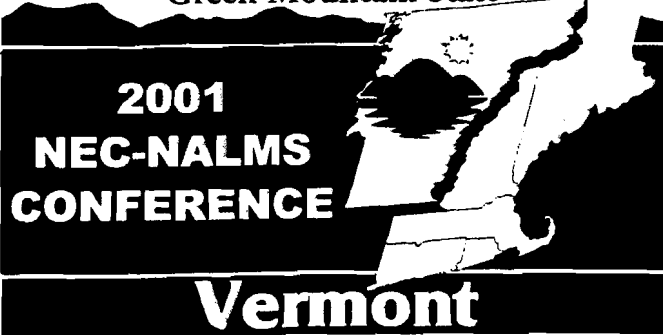
The Vermont Department of Environmental Conservation's watershed planning process has started in the Lamoille River basin. Watershed planning will take place in all of the state's 17 major watersheds according to a five year rotational schedule. The process is also underway in the White and Poultney-Mettowee River watersheds. The watershed planning process will identify needed watershed restoration projects, and solicit state, federal, non-profit, and volunteer input, funding, technical assistance, and public education to implement these projects.

The Lamoille River watershed is 706 square miles in size; the river flows more than 84 miles from its headwaters in Glover to its mouth in Outer Mallets Bay in Lake Champlain. Lakes located within the Lamoille basin include Arrowhead Mountain Lake (Milton), Caspian Lake (Greensboro), Lake Elmore (Elmore), Lake Eden and South Pond (Eden), and Wolcott Pond and Green River Reservoir (Wolcott). (See map on page 5.)

The first Lamoille River Watershed Council meeting was held May 1, 2001 in the town of

See "Lamoille River" page 5

Green Mountain State



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OUT OF THE BLUE

is produced semi-annually by the Lakes and Ponds Section. Our purpose is to share information on lake environments, water quality and state activities through articles on aquatic ecology and Division programs. Feel free to let us know what articles you would like to see in future issues. To be placed on the mailing list, or to receive extra copies, please contact:

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Agency of Natural Resources Begins Statewide Assessment of Dams

Dams are a common feature on Vermont's rivers and lakes. The Agency's Vermont Dam Inventory contains more than 1,000 entries, and it is suspected that there may be an equal number of dams not in the inventory. For those dams listed in the inventory, the amount of information known is pretty sketchy in many cases. There is good information on those dams that are either owned by the state, used to produce hydroelectric power, or regulated by state law (those dams that impound at least 500,000 cubic feet of water). But for many of the smaller and older dams, the only information that exists is little more than an unconfirmed location.

This summer the Agency will begin an assessment of all dams in the state. A staff team will visit each dam site and gather information on the dam structure, the ecological conditions above and below the dam, and the cultural setting. This project is an outgrowth of three more-or-less independent programs that have begun in the last few years, and therefore will provide informational support to these programs.

The first of these programs is the Agency's watershed planning process. As recently reported in *Out of the Blue* (Issue #21 and on page 1 of this issue) the Agency is working with local watershed groups and other parties in each of the 17 major planning basins in the state to assess watershed conditions and develop basin plans. Dams are common features in many watersheds and they affect water quality, aquatic habitat, recreational opportunities, and other uses and values of the state's rivers and lakes. Having better information on the location, condition, and impacts of these dams will enable, for example, a local watershed group to determine if modification or removal of a dam could improve water



Maidstone Lake Dam in Maidstone (northeastern Vermont)
is one of many aging lake dams in Vermont.

quality or aquatic habitat conditions. If so, the group could work with the dam owner, the local community, and state and federal agencies to develop and implement a plan to modify or remove the dam.

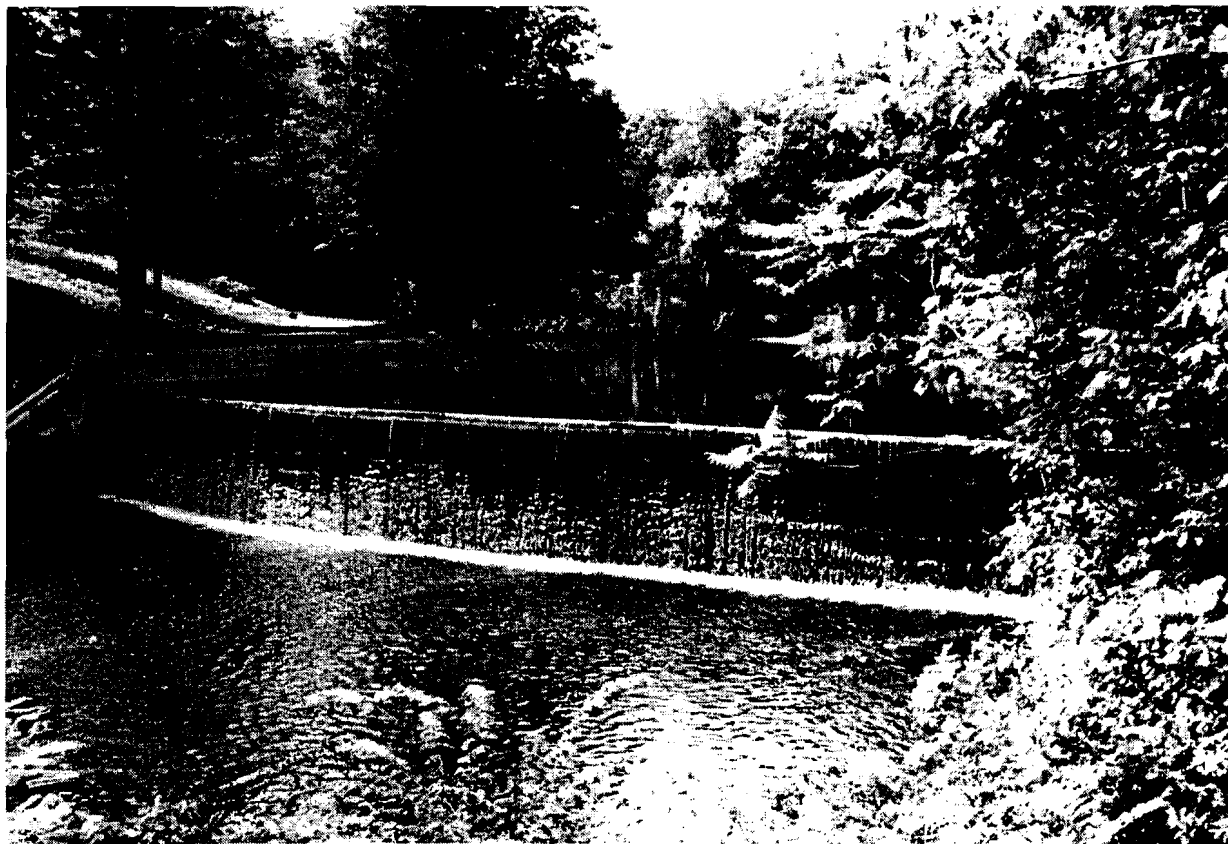
The second program is a joint project between the Agency of Natural Resources and the Division for Historic Preservation. Dams have been important throughout Vermont's history. Many of Vermont's town centers were developed around dams that were built to power mills when the state was being settled. In addition to their importance as part of the history of a town or city, some Vermont dams are significant because of their design or the materials used in construction. Three years ago, the Agency and the Division for Historic Preservation began working together to find ways to resolve conflicts between the desire to preserve dams for their historic value, and the competing interest in removing or modifying them to restore natural ecological conditions. The assessment process will include gathering information that can be used to evaluate the cultural significance of each dam.

The third program began last fall when

David Deen, River Steward with the Connecticut River Watershed Council, convened representatives of dam owners, environmental groups, and state and federal agencies with an interest in dams. This group, which has become the Vermont Dam Task Force, is looking at ways to work collaboratively on dam removal and modification projects that have broad community support. Some of the members are working on specific projects with the assistance of other task force members.

With more than 1,000 dams to evaluate, the Agency's dam assessment team is going to use a "reconnaissance level" survey, with the goal of visiting and recording information on as many dams as possible. The goal for this summer is to assess the dams in the White, Mettowee, Poultney and Lamoille river basins, where the basin planning process is currently underway. Even that will be a challenge, with a total of at least 180 dams in those basins.

If you would like more information about this project, or would like to help identify the dams in your watershed, please contact Brian Fitzgerald at the Water Quality Division (802-241-3468 or BrianTF@dec.anr.state.vt.us).



The Green River Dam in Guilford, Vermont was recently retrofitted with a fish ladder (seen at left) while preserving its historic timber construction.

Aquatic Nuisance Species

HIGHLIGHTS

- ♦ **U.S. Army Corps of Engineers Funding.** Vermont/Lake Champlain 2001 ANS management efforts will be aided by \$400,000 of U.S. Army Corps of Engineers funds. Some of the funds will be used to conduct plant studies on Lake Horton and Burr Pond following last summer's chemical treatment for Eurasian watermilfoil. The funds will also help support the Lake Champlain Water Chestnut Management Program and the Vermont Grant-In-Aid Program. Senator Leahy was instrumental in securing this funding.
- ♦ **Lake Champlain Basin ANS Management Plan.** In March the federal ANS Task Force, through the U.S. Fish & Wildlife Service, awarded the VTDEC \$105,000 to assist with implementation of the Lake Champlain Basin ANS Management Plan. The funds will support several ANS activities within the Lake Champlain Basin including: the development of an ANS Coordinator position, research on weevils (*Euhrychiopsis lecontei*) as a control for Eurasian watermilfoil, expansion of the Lake Champlain Water Chestnut Management Program, and increased enforcement of ANS laws and regulations.
- ♦ **Eurasian Watermilfoil Chemical Treatment.** On May 29th Sunrise Lake in Benson/Orwell was treated with the aquatic herbicide, Sonar®, to control Eurasian watermilfoil. Final results will not be known until late summer 2002.
- ♦ **No More Free Rides.** A media campaign entitled "No More Free Rides" will be in full operation this summer. The campaign, designed to raise awareness of Vermont's aquatic nuisance species transport law, will consist of pre-recorded broadcast public service announcements, posters, rack cards, and news stories. Law enforcement officers will also devote time at public lake accesses this summer specifically to enforce the transport law and are prepared to issue \$150.00 fines if necessary.
- ♦ **New Training Video.** A new 13 minute video is available to assist with training law enforcement officers and lake access monitors about Vermont's law prohibiting the transport of Eurasian watermilfoil, water chestnut, zebra mussels, and quagga mussels; identification of the four prohibited species; and boat inspection techniques. Copies may be obtained by contacting Michael Hauser at the VTDEC's Water Quality Division at (802) 241-3777.
- ♦ **Spread Prevention Guidelines.** In December the US Coast Guard published *Voluntary Guidelines on Recreational Activities to Control the Spread of Zebra Mussels and Other Aquatic Nuisance Species*, Federal Register Notice (USCG-2000-7206). The guidelines are based on the recommendations presented to the Coast Guard by the Recreational Activities Committee of the Aquatic Nuisance Species (ANS) Task Force as required by the National Invasive Species Act of 1996. The guidelines may be viewed at: <http://www.uscg.mil/hq/g%2Dm/mso/mso4/anspress.html>



Lamoille River (continued from page 1)

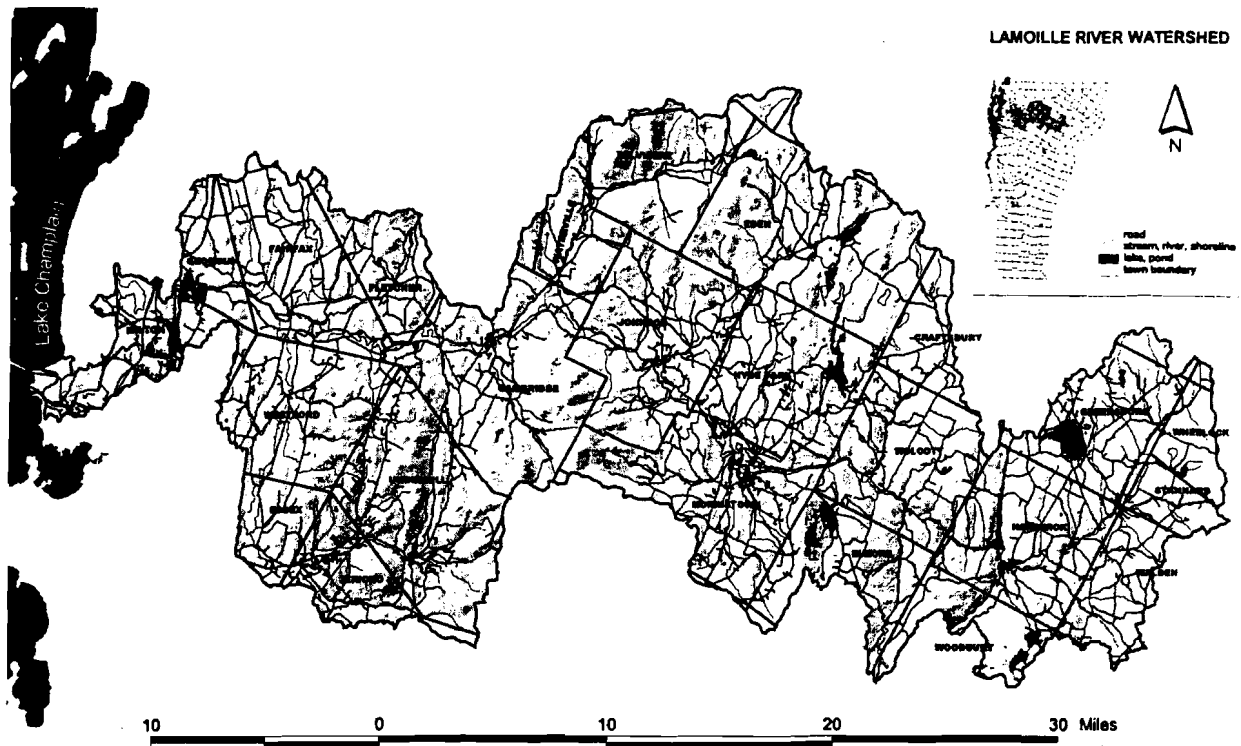
Johnson to introduce the Department's watershed planning process and to discuss the role of the Watershed Council, a growing group of local decision makers representing various stakeholders within the watershed. To date, the Council is composed of farmers, municipal officials, regional planning commission staff, large landowners, local businesses, local representatives from state and federal agencies, anglers, and river and lake organization representatives. The Council will steer the watershed planning process by establishing "issue groups" to address concerns of local citizens, provide assistance to draft and implement the watershed plan, and co-facilitate public forums with VTDEC staff.

This summer a series of public forums will be held throughout the Lamoille River watershed to introduce the VTDEC watershed planning process and solicit local information on watershed concerns, favorite areas, and visions of an improved Lamoille River watershed.

Lake residents and associations are invited to become part of the basin-wide planning process. By making sure a lake's issues and concerns are included in the plan, lake associations can set themselves up for future funding and technical assistance opportunities.

Several successful watershed restoration projects already have been completed along the Lamoille River. These include streambank buffer plantings, stream stabilization, stormwater management, municipal road improvement, and an agricultural Best Management Practice pilot project. Also, a stream stability assessment in Lamoille County has been completed by the Lamoille County Natural Resource Conservation District and the Lamoille County Planning Commission with federal and state support. The results of this study, *Stream Stability Assessment of Lamoille County*, are currently available and can be downloaded at the website www.lamoillecountypanning.org (a shorter, color version of this document is available through the Lamoille County NRCD office by calling (802-888-9218)).

For more information on the Department's watershed planning process, including this summer's dates and sites of public forums, please contact the following Water Quality Division Watershed Coordinators at 802-241-3770: Jim Ryan for the Lamoille watershed; Karen Bates for the White River watershed; and Ethan Swift for the Poultney-Mettowee watershed.



NEC-NALMS (continued from page 1)

The lake conference event was made doubly exciting for the Vermont planners because of the timing and location. The Saturday conference sessions were planned for the State Capitol building in Montpelier. However, when the Legislature decided the night before to finish the last day of their long session on Saturday, the conference planners scrambled to "go with plan B." Plan B involved moving events next door to the Pavilion and 133 State Street buildings.

Although the sessions were held next door to the Capitol, lunch was still provided in the Capitol at the Food Court, which meant conference participants had a chance to mingle with Vermont legislators. Amy Picotte, the coordinator of the Vermont Lay Monitoring Program, reported that one state representative

sought her out to ask about joining the monitoring program. Amy said the representative commented how he could not wait for the Legislature to adjourn so he could retreat to his favorite place: his lake in northern Vermont.

Thank you to all who came and contributed to this exciting lake and watershed learning opportunity. And thank you to members of the Federation of Lake Associations – Northern Vermont and the Lake Protection Advisory Committee for countless hours of volunteer work to make the conference happen.

June 1-2, 2001 NEC-NALMS Conference Sponsors

- ♦ NEC-NALMS
- ♦ US EPA Region 1
- ♦ New England Interstate
Water Pollution Control
Commission
- ♦ Vermont Department of
Environmental Conservation
- ♦ University of Vermont, School of
Natural Resources

Thank you for your support!

Mike Kline, from the Vermont Rivers Management Program, led a field trip "Assessing Unstable Streams in a Small Lake Watershed" at Berlin Pond, Berlin, Vermont.



Tom Sabo (right) and Cliff Aikens of Silver Lake Association serenaded conference participants as they arrived Saturday morning.



The VTDEC is pleased to award the 2001 Robert Arnold Lake Protection Award to **Jackie Sprague** of Harvey's Lake and the Federation of Lake Associations – Northern Vermont. The award was presented by Ginny Garrison, Supervisor of the Lakes and Ponds Section, at the NEC-NALMS conference, below.



"The Robert Arnold Lake Protection Award is presented to Jackie Sprague on June 2, 2001, in recognition of her all-around devotion to the health of Harvey's Lake, for her outstanding leadership as the President of the Federation of Lake Associations-Northern Vermont, and for her distinguished representation of Vermont on the New England Chapter of the North American Lake Management Society's Leadership Committee since the Chapter founding in 1993. Jackie's tireless commitment to all aspects of the well-being of Vermont lakes is evidenced by her respected reputation as a citizen resource for lake issues. Jackie's dedication to lake protection through improved networking among lake associations has provided encouragement and inspiration to many people and lake restoration projects. Additionally, as an essential Lake Protection Advisory Committee member, she has helped shape much of the Agency's Lakes and Ponds Section work, including LakeFest, the Lay Monitoring Program, and Aquatic Nuisance Species initiatives. The Vermont Agency of Natural Resources is pleased to honor Jackie and express sincere appreciation for all her lake protection work."

Below, at the NEC-NALMS lake science workshop, participants are shown aboard the Melosira, the University of Vermont's Lake Champlain research vessel.



Above, identifying aquatic plants during the NEC-NALMS aquatic species workshop.

To the right, Ship Bright and Mary Ann McGarry from the Maine Lakes Conservancy Institute. They gave a dynamic NEC-NALMS presentation about their latest initiative: a mobile, floating classroom available on loan to lake associations and school groups throughout Maine.



As lake associations increasingly turn their attention to an entire lake's watershed to plan and carry out protection activities, many are interacting more significantly with town government and residents. At the 2001 NEC-NALMS conference, representatives from the towns of Glover, Franklin and Westmore participated in a discussion on enhancing communication and cooperation between lake associations and town governments. Here is a compiled version of tips they had to offer lake associations, from the town's point of view.

- 1 **Maintain regular contact** with the Select Board (SB), even if there is nothing pressing on your agenda. Have someone from the lake association (LA) attend as many meetings as possible, even in the winter. Cultivate a LA member who is also a year-round town resident for this role.
 - 2 Have someone from the LA **attend Town Meeting** in March and provide a brief report on lake issues and activities. Submit a written report for inclusion in the Town Report (usually due to the Town Clerk in January).
 - 3 Come to the table with **solutions and offers to help** when there is a problem. Develop a "reciprocal relationship." Do your homework about cost-effective solutions.
 - 4 **Help** in ways that go beyond lake issues. For instance, raise funds for the fire department, volunteer for town activities, help the town write grants, and maintain the public beach.
 - 5 **Say thank you!** A personal thanks for a job well done can go a long way in gaining interest in your next project.
 - 6 **Understand** the town's view of the lake. What's in it for them? Their view is probably different from the LA's. Ideas that came up included (besides the obvious tax base) support for local businesses, cultural diversity, recreation, and help with fundraising for projects. Also, many SB's understand that a clean lake means more revenues for the town.
 - 7 **Help town residents** enjoy the lake. Offer outdoor concerts, swimming lessons, social events, a kid's fair, canoe races (to name a few activities some Vermont LA's are involved in). Town residents are much more likely to offer support for lake protection if they can also enjoy the lake.
 - 8 **Good food** and conversation! Invite town folks to gatherings and provide tasty treats.
- There's nothing like a yummy coffee cake to get someone's attention.
- 9 Get together sometimes **just for fun**. You'll wear out yourself, volunteers, and town residents if it's all work and no play.
 - 10 **Participate in town processes** such as town plan updates and developing town bylaws. Town boards are usually thrilled to have extra bodies to help with the work and broaden the perspective.
 - 11 **Ask for advice** from the SB. Find out how the town's previous actions or existing town policies affect the particular situation you are concerned about.
 - 12 Look at the **different means of formal and informal communication** in your town. There are probably several effective ways to get your message across to the variety of people in town.
 - 13 **Ask** the SB or other town boards to put notices or articles in the LA newsletter.
 - 14 Cultivate a cooperative relationship with the **Town Clerk**. This person is often the key to communication and information in town.
 - 15 **Invite** town officials and town residents to join the LA. Perhaps create "honorary" memberships for people you really want to have on board.
 - 16 **Stay away from the "we vs. they" approach**. Don't single out certain types of landowners. Choose some of the less controversial issues to start with and tackle the more difficult ones as trust develops.
 - 17 Try and work things out **locally and cooperatively** whenever possible.

Cultivating cooperative relationships **TAKES TIME!** Through regular contact, a positive and helpful attitude and appreciation for the diversity of people in town, lake associations, town officials and community members can find common ground and move forward. Good luck!

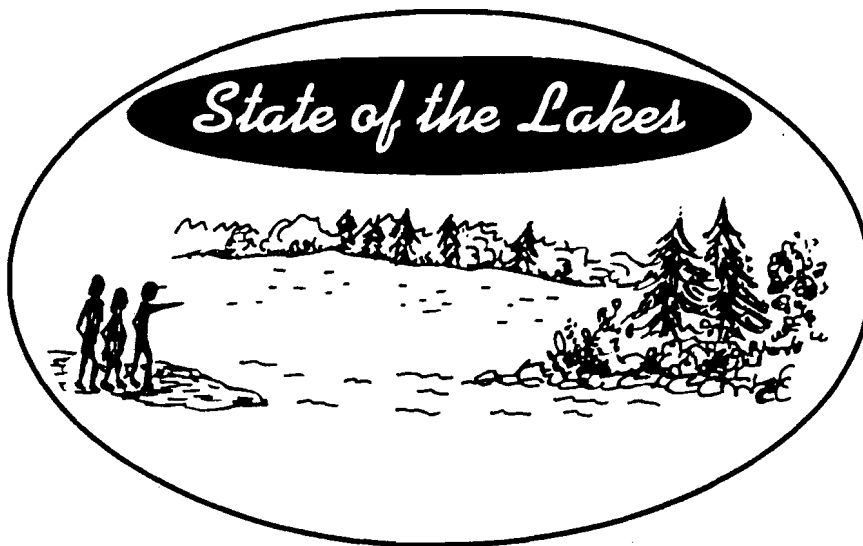
Thanks to the conference panel members who provided their insight:

Nick Ecker-Racz, Glover Select Board

Larry Kempton, Franklin Select Board

Ethan Swift, Westmore Planning and Zoning

Also thanks to Friends of the Mad River, the Lake Parker Association, Jackie Sprague, Susan Clark, the Silver Lake Association, and the Lake Morey Protective Association for additional ideas.



**Vermont's Northern and Southern
Lake Federations to Merge!**
by Jackie Sprague

At the 2000 annual meeting of the Federation of Lake Associations of Northern Vermont, members voted to organize a task force to investigate the merging of the Southern and Northern Federations. A task force made

of several members from both the Northern and Southern Federations met during the fall and winter to organize, write bylaws and investigate the merger. Task force members, Dick Simpson and John Washburn, are in the process of incorporating a new Federation of Lake Associations for the entire state.

Once incorporated as a non-profit, the organization would apply to the IRS for tax-exempt status. Many thanks for all the task force members who have worked so hard to support this move. This is an exciting time for lake associations in Vermont!

More information on the status of the process will be provided at the annual meeting on Monday, July 23, 2001 at Vermont Technical College in Randolph, Vermont. Please contact Jackie Sprague for information on the meeting at 802-482-2885 or jackie@sprague.org.



"At the Curve in the River" by Mary Azarian, Vermont Artist
Wood cut print from Mary's newly published book,
"The FOUR SEASONS of Mary Azarian."
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Two Great Lake Events: The Great North American Secchi Dip-In and the Vermont Lake Dip-In

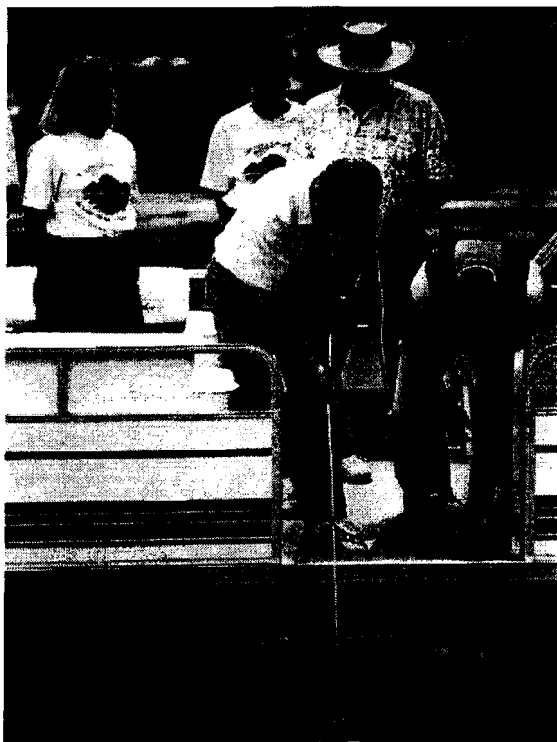
The Great North American Secchi Dip-In is an annual effort where thousands of lakes and ponds are sampled across North America. The event, masterminded in 1994 by Bob Carlson from Kent State University in Ohio, provides a snapshot of transparency over North America, helps monitor national and regional water quality trends, and proves that volunteers can make a difference in helping to monitor the environment.

The Vermont Lake Dip-In is held on a different Lay Monitoring lake each year, during the two week period of the Great North American Dip-In event. The Vermont Lake Dip-In is a celebration of Vermont's great lakes, ponds, and watersheds, and the citizens who work to protect them. The Lake Dip-In also is designed to show appreciation for the hundreds of volunteers who have collected and continue to collect water quality samples from their favorite Vermont waters.

Last summer, the 2000 Lake Dip-In was held on Lake Morey in Fairlee, Vermont. Local Lay Monitors, Don Weaver and Bill Scott, were accompanied by Scott Johnstone, the Secretary of the

Agency of Natural Resources, to take their weekly water Secchi disk reading. The transparency reading for the day, recorded at 6.3 meters, was sent into the national database of the Great North American Secchi Dip-In.

All the Vermont Lay Monitors' Secchi readings sent to the national database were averaged for the "2000 Vermont transparency reading." The 2000 Vermont reading was 5.8 meters, one of the deepest averages in the country, ranking Vermont very high in the nation for water transparency (Remember, this is not exactly science, just a perspective on the nation's transparency and a whole lot of fun to compare!).



Lake Morey Lay Monitor Don Weaver (right) bends low to show Scott Johnstone how to get a better view to read the Secchi disk. Bill Scott, Don's Co-Monitor, provides shade with his hat.

The Lakes and Ponds staff fondly remember Richard Allen from Lake Morey, who died in February 2001. At the 2000 Vermont Lake Dip-In event, Dick was recognized for his outstanding dedication to lake protection work on Lake Morey.

*"The Robert Arnold Lake Protection Award is presented July 12, 2000 to **Richard Allen** in recognition of his all-around devotion to Lake Morey. Dick's tireless focus on all aspects of the well-being of Lake Morey is evidenced in his work for the successful alum treatment of Lake Morey, which has greatly improved the quality of the lake, his pollution prevention efforts, and his leadership in aquatic nuisance control projects. As part of the Great North American Secchi Dip-In 2000, the Vermont Agency of Natural Resources is pleased to honor Dick and express sincere appreciation for his outstanding commitment."*



Dick Allen (left) is presented his Robert Arnold Lake Protection Award by Scott Johnstone, Secretary of the Agency of Natural Resources on the shores of beautiful Lake Morey, July 12, 2000.

Happenings and Offerings

Join Us for the 2001 Vermont Lake Dip-In!



This summer the **Great North American Secchi Dip-In** is being held from **June 30th to July 15th, 2001**. The **Vermont Lake Dip-In** is scheduled for **Monday, July 9th at 1:00 p.m. on Nelson Pond in Woodbury**. Chris Bean, the local Lay Monitor, the Calais Conservation Commission, and the Lakes and Ponds staff invite you to join us for the Secchi Dip-In reading followed by a discussion about the lake watershed survey process the town is involved in. Susan Warren and Nava Tabak also will hold a Eurasian watermilfoil identification session. Folks from other lakes are welcome. Please call Amy Picotte at the Lakes and Ponds Section, (802) 241-3777, if you would like to participate in the Lake Dip-In at Nelson Pond.

New Water Quality Web Page! The Water Quality Division is proud to unveil its new web page containing information about lakes and ponds, rivers and streams, and wetlands. Check us out at:
www.vtwaterquality.org

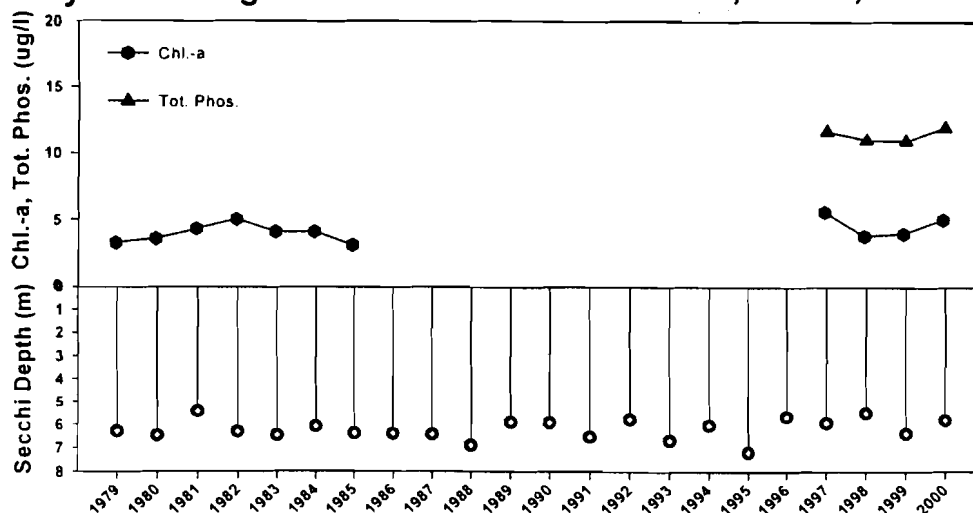


Tribute to Don Wilson, Lake Fairlee Lay Monitor



Sadly, long-time Lay Monitor Don Wilson of Lake Fairlee died during the winter of 2001. Since the founding of the Lay Monitoring Program in 1979, Don had collected the weekly water quality samples and observations on the lake. He was one of only three monitors in the entire state who had sampled every summer since the program began! Mr. Wilson is recognized for his significant contribution to understanding conditions at Lake Fairlee and to lake protection efforts. He will be greatly

Lay Monitoring Annual Means for Lake Fairlee, Fairlee, Vermont



Lay Monitoring annual means on Lake Fairlee show little variation from year to year. Secchi water clarity means range from 5.4 to 7.2 meters, total phosphorus concentrations are between 11 and 12 ug/l, and chlorophyll-a means range from 3.1 to 5.7 ug/l. In general, a lake showing long term consistently high water quality conditions is one unlikely to be receiving problematic runoff from its watershed. In Lake Fairlee's case, the data suggest the lake will benefit from watershed protection efforts to maintain its good water quality.

Find The Right Place To Hold A Car Wash: A Great Tip for Helping Keep Surface Waters Clean

Here is a thought to share, especially for those working with children. There are many threats to clean, safe surface waters, including community car washes when they are held on paved surfaces.

A lot of schools, local fire departments, sports teams, and other groups offer car washes as fundraising events. A problem arises depending on the location where they are held. Typically they are held on paved properties, such as in front of snackbars or parking lots, which were chosen for easy access and high visibility and not with water quality in mind.

The untreated runoff from car washes will end up in a river or a lake and could cause stress to the aquatic ecosystem. **Car washes would be better held on grassed areas where the water can infil-**

trate into the ground. Or second best is a parking lot that drains into a vegetated area, rather than surface water. Also, be sure to use low phosphate soap, and minimize amounts used. Most organizers of car washes probably do not realize where all that soap goes, but by helping spread the word on the best sites to hold car washes, more streams, lakes and wetlands will be saved from the soap!



Potash Brook in South Burlington (on its way to Lake Champlain) is foaming from a car wash event.

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