

LAKE SIDE

A QUARTERLY PUBLICATION OF NEW HAMPSHIRE LAKES ASSOCIATION

When Spring Showers Bring...Stormwater



Members dedicated to protecting lakes

Volume XVIII, No. 1, Spring 2009

by Jillian McCarthy, Nonpoint Source Specialist,
New Hampshire Department of Environmental Services

After a long New Hampshire winter, as we put away the snow shovels and enjoy the trills of spring songbirds, it is good to know that there is a lot we can do right now to redirect the rushes of rain and snowmelt across our properties. As rainfall and snowmelt washes over the land, it crosses streets, lawns, farms, construction sites, and industrial facilities and transports pollutants that lay scattered across the landscape. Addressing these situations in springtime gives us the chance to be excellent stewards of our rivers, lakes, and coastal waters.

How does rain become stormwater?

In an undisturbed landscape, such as a forest, a rainstorm is a welcome event. Rain and snow melt soak into the soils and are absorbed by trees and other vegetation. This replenishes groundwater aquifers and maintains stream flows during the dry summer months. In a developed landscape, however, there are roads, lawns, driveways, parking lots, roofs, and other impervious surfaces that prevent rain and snow from infiltrating or soaking into the ground. Instead, it flows into wetlands, streams, lakes and ponds at a faster rate and a larger volume than before. This can erode otherwise stable stream banks and increase the frequency and magnitude of flooding, as witnessed in New Hampshire in recent years. It also introduces pollutants into our waterbodies. This polluted runoff is commonly called stormwater.

How does stormwater impact New Hampshire lakes?

There is a great variety of pollutants found in stormwater. Common stormwater pollutants include nutrients, sediment, bacteria, metals, chlorides, toxic contaminants such as petroleum products, pesticides, and herbicides, and thermal pollution.

Nutrients in stormwater usually come from organic waste, fertilizers or eroding soils. When excess nutrients, particularly phosphorus, enter a lake, they speed up plant and algae growth, including cyanobacteria which can be toxic to humans and other animals. Algae can be a nuisance for swimming and boating, and can decrease the amount of oxygen in the water as plants die and decompose. This means that less oxygen is available for fish and other organisms, which makes it difficult for the lake to support a diverse aquatic life ecosystem, including a healthy fish population.

Sediment is washed or eroded into lakes and ponds from tributaries with unstable stream banks, dirt roads, or from activities that disturb the landscape and do not have adequate erosion and sediment controls. Fine sediments stay suspended in the water and reduce water clarity. This makes a lake appear cloudy and reduces how far down we can see into the water. These fine sediments can also clog the gills of fish as water passes through them to breathe. Sediment that settles to the lake bottom can smother the habitat of fish and other aquatic life, and can literally fill in the lake, making it easier for plants, including invasive species, to take root. Sediment tends to carry other pollutants such as *nutrients* and *metals* with it.

Bacteria come from pet waste that is left on the ground, failing septic systems around a lake, or wildlife. Bacteria in a lake can make swimmers sick and can lead to beach closures. Bacteria not only pose a public health risk, but can cause an economic hardship for communities who rely on lakes and bathing beaches for revenue from tourism.

Chlorides are found in road salts that are applied to roads and highways in the winter months to make them safer to drive on and discharge from water softeners. Unfortunately, chlorides increase the salinity of our lakes and stress aquatic organisms that depend on freshwater habitats. As salinity increases, a lake becomes more susceptible to invasive plant species. Freshwater plants die off and salt tolerant plants take over.

Stormwater, continued on page 5

LAKESIDE

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From the President...



Spring has arrived! As the weather warms, seasonal rain and snowmelt is often accompanied with increased sediment runoff into our lakes and rivers. This is a normal process that helps provide essential nutrients for a healthy lake ecosystem. However, excessive nutrients and pollutants from stormwater runoff, especially during times of construction or soil disturbance, may cause a proliferation of aquatic vegetation, which may compromise the overall quality of our lakes.

What better way to explain the stormwater issue than by including it as our cover page article? What can we do to help prevent or alleviate stormwater problems?

Understanding the need to protect our lakes beyond the shore is a great first start.

NH LAKES is doing this through our Lake Conservation CorpsSM program. This stewardship learning program

combines local high school students and teachers with hands-on science and instruction from the University of NH Cooperative Extension, NH LAKES, and local landscapers, to fix stormwater runoff problems on the landscape. Please visit our website for information on how your community can become involved in this innovative program. Also, be sure to read the article in this issue about lake-friendly lawn care to help minimize your lawn's impact on water quality.

The legislative session is still in full gear, with water quality protection our highest priority

this year. Of course, soon summer will be upon us and Lake Hosts will be educating boaters throughout the state on how to prevent the spread of devastating exotic aquatic plants. If you want to get out more by the lake this summer, we recommend that you volunteer as a Lake Host at your local ramp—call us to find out how! And, we are planning another summer of events—we hope to see you this year at Lakes Congress, the Lakeside Living Expo and LakeFest!

No doubt—there are many challenges to protecting New Hampshire's lakes. Thankfully, we have a dedicated Board of Directors, high quality staff and the support of you—our members. Please renew your membership today, if you have not already done so—your support and partnership is critical to our success!

Thank you for your continued commitment to NH LAKES and have a spectacular spring and summer!

NH LAKES gratefully acknowledges the support of:



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whose generous contributions
underwrite this issue of *Lakeside*.

2009 Legislative Session Update

The 2009 Legislative season is still in session. This spring, NH LAKES will continue to monitor and testify on lake management and protection related bills, including those discussed below, so that New Hampshire's lakes and shorelands will be better protected.

Restricting Phosphorus Levels in Automatic Dishwasher Detergents (House Bill 350)

- Prohibits the sale and distribution of household cleaning products containing phosphorus, specifically targeting automatic dishwashing detergent for residential use. Phosphorus has a significant detrimental impact to lakes, often acting as a fertilizer for aquatic vegetation, leading to overabundant aquatic plant and algal growth.
- The bill has been amended to move the effective date to July 1, 2010.
- Low-phosphorus and phosphorus-free automatic residential dishwasher detergents are readily available today through most manufacturers.
- HB 350 passed the NH House of Representatives and will now head to the NH Senate.

Increased State Boating Fees (House Bill 205)

- Increases the fee charged by the state based on the length of the vessel.
- Allocates an additional \$1.50 per boat registration to exotic invasive aquatic weed control and an additional \$1 for exotic invasive aquatic weed prevention.
- Also increases the license fee from \$4 to \$12 and increases the registering agent fee from \$1.50 to \$5.

- This bill has been retained by the NH House Ways and Means Committee and will not move forward this year.

Modify Fill and Dredge Permit for Wetlands (House Bill 222)

- Requires the NH Department of Environmental Services to consider direct and indirect impacts to wetlands while reviewing applications for a permit.
- HB 222 has been retained by the NH House Resources, Recreation & Development Committee and will not move forward this year.

Comprehensive Shoreland Protection Act (Senate Bill 134)

- Clarifies the reference line as the surface elevation on natural fresh water bodies and artificial impoundments listed in the Official List of Public Waters maintained by the NH Department of Environmental Services.
- Adds a reduced permit fee for projects that qualify as a permit by notification. Water quality improvement projects will be \$100 and for all other permit by notification projects the fee will be \$250.

- SB 134 passed the NH Senate and will now head to the NH House of Representatives.

Modify State-Owned Waterfront Leasing Policy (Senate Bill 107)

- Increases the fee for leasing state-owned waterfront managed by the NH Department of Transportation Bureau of Rail and Transit from \$25 per linear foot to \$30, with a Consumer Price Index increase every five years.
- Additional changes would limit leasing to adjacent parcels that are developed for residential purposes only. All undeveloped parcels after 2011 would not have an opportunity to lease adjacent state waterfront property. These are needed policy changes that help protect and enhance our lakes and rivers.
- SB 107 passed the NH Senate and is currently before the NH House Resources, Recreation and Development Committee.

If you have any legislative-related questions, please contact Jared Teutsch at jteutsch@nblakes.org or (603) 226-0299.



Lake Friendly Lawn Care

by Jeff Schloss, Extension Professor and Water Resource Specialist, University of New Hampshire

There is often controversy and confusion regarding lawns on shoreland properties. Some consider lawns inconsistent with the natural shoreland ecology while others want to bring to their lake home the same look and feel as the neighborhoods in suburbia that they have grown up with. As all vegetation provides at least some water quality functions, a lawn managed in the proper way can still allow for stabilized soils, filtered water infiltration into the ground and some nutrient and pollutant capture. And, as with all vegetation, lawns sequester carbon dioxide, produce oxygen and, by doing so, cool the planet. Thus, lawns still make a better alternative to pavement or patios which create greater runoff conditions and impede groundwater recharge. Of course, managed improperly, lawns and their care can add to pollutant and nutrient loading to our surface and ground waters, attract nuisance weed plants and insect pests (and even big pests like Canada Geese!), impact important plant and wildlife species, as well as greatly reduce the available drinkable water supply with their potential need for irrigation. So, how might you maintain a lawn area to enjoy on your shoreland property (or any property for that matter) while minimizing your impacts to the water quality and natural ecology?

The recent publication, "Landscaping at the Waters Edge: An ecological approach" from

UNH Cooperative Extension (extension.unh.edu/resources/) covers the importance of considering how you may landscape your shoreline property for the improvement of water quality as you also enhance the enjoyment and value of your property. While the publication goes into much greater and more specific detail, the information below is a good start when considering lawns and their potential impacts to water quality.

Everything in moderation. We often hear from our health providers that moderation is the key to healthy living and the same holds true for natural systems. Questions to ask yourself here include: How much lawn or open space do we really need for our intended uses? Do we need to have our open space all as a monoculture of a single type of grass or can we live with a combination of grasses and groundcovers that match our use? There are many varieties of grasses depending on the type and frequency of use (i.e.; occasionally picnicking to kids playing ball everyday) and site conditions (soils, sun exposure and slope). Recently developed fescue grasses, for example, require less maintenance (water, mowing and fertilizing) and can even be obtained with symbiotic bacteria in their roots that make the grass better resistant to pests and diseases. The best approach is a mix of grass species with other groundcovers and white clover (or another low growing legume to naturally supply nitrogen to the soil). Talk to your county extension educator, landscaper, or garden center expert about your options.

Location, location, location. Yes, the mantra of real estate agents also works well for lawns. A lawn requires additional maintenance that even, when not excessive, can still threaten water quality. Locate the lawn as far away from the shore as you possibly can and maintain a significant

buffer area downslope from the lawn with a mix of shrubs and woody plants to make up for this. A lawn leading right down to the water is the worst thing for the water and it will attract nuisance geese. It's a known fact that keeping the vegetation high at the waters edge will discourage geese from coming onto a property. It also provides many water quality and wildlife related benefits.

Test first, apply later. It is most important to test your soil before even thinking about applying fertilizers. Once grass is established, fertilizing more than once a year (unless the yearly dosage is applied in fractions) is generally excessive and can lead to excess nitrogen loading to surface and groundwaters. Lawns tend to need less acidic soils, so sometimes just applying crushed limestone to reduce the acidity can release enough nutrients that were bound to the soil to maintain the lawn. A soil test will let you know exactly what you need to maintain a healthy lawn. As will often be the case if the test informs you that only nitrogen is needed, look for low to no phosphorus fertilizer blends (middle number of the N-P-K rating on the bag should be "0") since phosphorous causes algae blooms in lakes. Generally, a well-established lawn can survive adequately with no more than one to two pounds of nitrogen per 1000 square feet. The best time to apply fertilizer on an established lawn is around mid-September when the grass is still active enough to incorporate the fertilizer into the plants, the summer drought is over and the surrounding vegetation is well established to capture any runoff from your lawn. Choose slow release fertilizers only, to ensure less polluted runoff. Many folks apply crushed limestone in the spring and fertilize in the fall. Some folks have never felt the need to fertilize and others have had their best results just using lake water (which usually contains small amounts of nutrients) for irrigation. It is really up to you to balance the results you are looking for with the minimum applications needed. Remember, the NH Comprehensive Shoreland Protection Act prohibits applying anything except limestone in areas within 25 feet of the high water line.



Instead of extending a lawn to the shoreline, the owners of this property have left a natural vegetative buffer along the shoreline which provides more protection to the lake from stormwater runoff and erosion.

Lawn Care, continued on page 5

Read the fine print! A recent survey in Maine indicated that many consumers did not realize that “Weed & Feed” products contain both fertilizers and pesticides. Why pay for and put down something that can potentially threaten the health of pets and children and water quality when you may not need it in the first place? If you do have weed or insect problems, consult with your county extension educator, landscaper or garden center expert to learn of safer alternative controls. No matter what you choose to use, always read the application directions and never over-apply. Many of the plants and animals that form the foundation of the aquatic food web are extremely sensitive to pesticides.

Conserve every drop. If you are on a public water supply, it is best to choose grass species with low watering requirements or use alternative irrigation supplies like rain barrels or cisterns or even the water directly from the shore. Summer water demand for lawns can be very significant. Depending on the species and soil conditions, you should water only when needed, no more than a half inch to an inch total weekly. You can use a rain gauge or a can to measure rainfall and irrigation amounts. Early morning watering is preferable to minimize evaporation loss but give the water enough time to infiltrate and to allow the leaf blades to completely dry before night to not encourage disease problems. Keeping the lawn height at least three inches or higher will also encourage deeper roots which require less water (and a mulching mower blade will allow for those grass clippings to recycle nutrients back into the soil). Remember that in times of drought and hot summer, lawns are supposed to go dormant. Letting this happen is the most environmentally friendly thing you can do.

So, the choices are yours—you can have an open space on your property with minimum impact to our waters if you can restrict its size, locate it properly, provide adequate vegetative buffer areas down-slope and use low input design and maintenance methods.

For more information, contact Jeff Schloss at jeff.schloss@unb.edu.

Toxic contaminants come from a variety of sources including petroleum products such as motor oil and gasoline, and the pesticides and herbicides that people use to care for their yards. The majority of products used to kill unwanted weeds and pests on the land, do the same thing in the water. And they are not species specific, so although we might apply a grub killer to get rid of those pesky critters that threaten our lawns, it may also kill other species living in the ground or in the water.

Thermal pollution is not a typical pollutant, but it has a big impact on lake temperature. Stormwater that runs over a hot parking lot or road heats up rapidly. When that stormwater reaches a lake, it increases the lake temperature. Many fish and other aquatic species depend on cool water temperatures and high oxygen concentrations to survive. Heating the water reduces the ability of the water to hold oxygen, decreasing oxygen concentrations and making it difficult for the fish to breathe.

What can I do to minimize stormwater?

Protecting New Hampshire’s lakes from stormwater is a responsibility that we all share. Seemingly harmless activities such as fertilizing lawns, walking dogs, or even landscaping the back yard can expose pollutants to stormwater and allow them to be washed into a nearby lake. So what are some simple things that we can all do to protect water quality?

Take responsibility. The first thing we need to do to protect our lakes and ponds is to recognize that the actions and behavior of every single person can impact water quality. It doesn’t matter if we live five feet or five miles from a lake; what we do counts.

Minimize our impervious footprint. Land disturbance, soil compaction and the introduction of impervious surfaces (surfaces that do not allow water to soak in) increase stormwater runoff rates and volumes, resulting in greater transport of pollutants. Instead of paving a



With the spring rains often comes polluted roadway runoff. A vegetative buffer or an infiltration trench along this roadway would help minimize the amount of sediment and other pollutants flowing into the stream.

new walkway or patio, consider reducing the area of impact and using permeable pavers that allow water to soak into the ground. When it is necessary to disturb the soil for a yard improvement project, simple best management practices such as minimizing the time with exposed soils, working during dry weather, using a silt fence, laying down mulch and seeding the area to encourage vegetation growth to stabilize disturbed soils go a long way to keeping sediment out of surface waters.

Put the rain to work. Instead of letting that valuable rainwater get away from us, attach the downspout of a roof gutter to a rain barrel, which collects the rain to use for watering gardens and plants on a dry day. Or install a rain garden and direct the downspout to the garden and let the rain do the work. Also consider re-grading lawn areas to trap and infiltrate stormwater instead of sheeting stormwater off site.

Practice source control. We often apply fertilizer to our plants each spring because, well...that’s what we do. Often, the soil already has plenty of nutrients to support healthy lawns and plants. Testing the soil for nutrients before applying fertilizer can tell us what type of fertilizer and how much is really needed. It also saves us from spending money on unneeded fertilizer.

For more ideas on how to minimize the impact of stormwater from your property, contact your local lake or watershed association, NH LAKES, or the New Hampshire Department of Environmental Services.

Local Campers become Lake Hosts!

by Susy Mansfield, Thorndike Pond Conservation Association

If you stopped at the Thorndike Pond boat ramp any weekday last summer, just by the Dublin/Jaffrey town line, you may have been surprised to find a girl in green camp shorts or a Boy Scout in uniform greeting you and inspecting your boat. The Thorndike Pond Conservation Association (TPCA) was fortunate to have not just one but both of the camps on the pond participating as volunteer Lake Hosts in 2008.

How did we get so lucky? Dr. Virginia Maurer, Director of Camp Wa-Klo for Girls, serves on the TPCA Board. At our end-of-

summer wrap-up in 2007, Dr. Maurer wondered out loud if the NH LAKES Lake Host™ Program might welcome the service of Wa-Klo campers as part of their Environmental Stewardship summer curricula. It seemed like it would be a good match, and it was.

Fueled by the enthusiasm of TPCA Board members, the NH LAKES staff made a plan for orienting campers. Karen Gillies, Program Director for Camp Wa-Klo, was trained as a Point Person. Working with Devin Altobello, a third-year paid Lake Host at Thorndike Pond, the Wa-Klo campers learned the intricacies of greeting boaters, inspecting boats, and mastering paperwork, working in pairs at the ramp.

Shortly after the girls started, the Boy Scouts appeared. TPCA President Jim Banghart met with Director Matthew Ford of Camp Wanocksett, owned by Nashoba Valley Council of the Boy Scouts of America, and training by the TPCA Point Persons was approved and accomplished. Under the supervision of

Councilors In Training Director Luke Steele, the Scouts took their place at the ramp every weekday, trading clipboards with the Wa-Klo girls and promoting the environmental ideals of boy scouting.

For 40 days (give or take a little rain) several dozen kids who come to camp in New Hampshire helped protect Thorndike Pond from harm, had fun doing it and learned a bit about invasive aquatic species and watershed protection. What did they take home? A model of active ecological stewardship, a picture of partnership among organizations with common goals, and some good memories from their days at the ramp. Best of all, both camps found that their participation in the Lake Host Program worked well and want to continue next summer.

Does your lake or pond have a camp on it? Might your camp want to participate in the Lake Host program? Now is the time to ask for 2009. The TPCA got great help and support from the NH LAKES staff in putting this collaboration together, and you will too.

For more information contact Andrea LaMoreaux, NH LAKES Education Director, at (603) 226-0299 or alamoreaux@nblakes.org.



Volunteer Lake Hosts from Camp Wa-Klo helped protect Thorndike Pond last summer and will continue to do so this summer!

Call for Nominations: 2009 Morten Award for Exemplary Lake Stewardship



In September 2002, a special award was created in honor of the late John F. Morten (1914-1989), in recognition of his lifelong work to protect New Hampshire's lakes and ponds. It was his vision and grassroots efforts that helped create the Lakes Region Federation, which later became the NH Lakes Association upon its merger with the NH Lakes Legislative Coalition. It was John Morten who saw the value of a statewide umbrella organization to represent lake interests with both the legislature and state agencies.

Mr. Morten exemplified selfless dedication to the lakes he loved so much, giving generously of his time, talents, and financial resources to help protect them. He was a person who made things happen—at once the creative idea man, leader, and activist who was organized, determined, and persistent in the achievement of any task. It is in tribute to his vision, dedication, commitment and vigor that NH LAKES established the John F. Morten Memorial Award for Exemplary Lakes Stewardship.

If you would like to nominate an individual for the 2009 Morten Award, please visit the NH LAKES website at www.nblakes.org to download a nomination form. All nominations must be submitted by May 22, 2009. The award will be presented at the NH LAKES Annual Meeting on June 26.

2009 Lakes Congress: “Partnerships Protecting New Hampshire’s Lakes”

The NH LAKES Education Committee cordially invites you to attend the 2009 Lakes Congress! This all-day educational conference and networking event will be held on **Friday, June 26, 2009**, from 8:00 a.m. to 3:50 p.m. at Colby Sawyer College in New London, in the heart of the Lake Sunapee Region. The NH LAKES Annual Meeting will follow at 4:00 p.m.

The theme of the 2009 Lakes Congress is “Partnerships Protecting New Hampshire’s Lakes.” This sixteenth Lakes Congress offers an excellent opportunity for up to 180 lake enthusiasts, lake association members, state agency personnel, researchers, lake and watershed management professionals, and political leaders to exchange information, ideas, and experiences as well as to introduce new approaches, products, and services to help better manage and protect lakes and watersheds.

After a delightful slideshow of lake images and sound, plenary speaker Steve Kahl will discuss how important it is to form partnerships, particularly during the current economic recession,

to research, manage, and protect lakes. Success stories of partnerships will be highlighted. In addition, Governor John Lynch has been invited to speak.

Nine different concurrent sessions will be offered this year. Topics include:

- Engaging Youth in Watershed Stewardship
- Innovative Control of Exotic Aquatic Plants
- The NH Guidelines for Coordinated Lake Management and Shoreland Protection Plans
- Project WET (Water Education for Teachers) interactive activity session
- Stormwater Runoff – Reducing off-site impacts
- New Technologies for Lake Management
- Watershed Approach to Environmental Education
- Watershed Management Plan Development
- Watershed Planning – Where does it lead?

An afternoon field trip co-hosted by the Pleasant Lake Protective Association and the

New Hampshire Department of Environmental Services will be offered. Participants will enjoy a boat tour around the lake while learning how to collect water quality samples. After the voyage, participants will return to the college to tour the water quality laboratory and help analyze water samples. *Space is limited for this session, so be sure to register soon if you are interested!*

Exhibitors will have displays and will discuss products and technical services that they can provide to you and your association. Exhibitors will include Aquatic Control Technology, Inc., Belknap Landscape Company, Inc., Certified Erosion Control of New Hampshire, Cormack Construction Management, Inc., Pelletieri Associates, Inc., and Wastewater Alternatives, Inc. Many nonprofit groups including local lake associations, universities, and state agencies will also be exhibiting.

For a flyer with registration information, keep an eye on your mail, call (603) 226-0299, or visit our website at www.nhlakes.org. Hope to see you at the 2009 Lakes Congress!



*The 2009 Lakes Congress will be held in New London, in the heart of the Lake Sunapee Region.
Photo courtesy of Bill Hemmel, www.lakesregionaerials.com.*

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This is a paid advertisement intended to provide you with information about a new technology that is available to help protect and improve lake quality. NH LAKES does not necessarily support or endorse any one technology, or product or company over similar products and companies. NH LAKES recommends that individuals and groups contact the New Hampshire Department of Environmental Services for permitting information before conducting any shoreland or in-lake management or restoration activities.

Mission Statement: At Universal Water Systems, our goal is to design, build and perform service work with a new generation of machines that offers a real source of remediation in lakes, ponds and watercourses. Our equipment and the methodology for its use is not a band-aid like other alternatives that have been tried and failed. We can suppress a variety of different invasive plants, remove accumulated organic sediment and restore waterways in a safe, green manner while remaining conscious of our environment and the need to protect it.



Large Industrial Suction Harvester



Commercial Suction Harvester

The Aqua Cleaner Vegger is a Suction Harvester that is designed to remove any type of solids that will pass through a hose and capture the debris in a variety of different configurations. These include aquatic vegetation, leaves, rocks, zebra mussels, sticks and other debris.

Our unique method for vegetation removal comes from our 10 years of experience removing Eurasian and variable water Milfoil, Elodea, Fanwort, Water Chestnut, Curly-leaf Pondweed, Hydrilla, lily pads and cattails. Our process not only removes this year's plant and its associated rooting system, but years past plants as well. This technique is the most effective form of plant suppression because the plants lying on the lake bottom will yield new plants as they decompose.



This lake was infested with milfoil (before).



Suction harvesting in progress.

Aqua Dredging: Our equipment can be seen on this link to the Discovery Channels Dirty Jobs. www.megavideo.com/?v=47DN90YK. You'll find it entertaining and informative!

Aquacleaner Environmental has refined and developed technology for suction dredging as a means of removing accumulated organic sediment (silt, muck) by manufacturing a small dredge system and a unique methodology that delivers impressive results. Typical issues involved in the permitting process focus on the disturbance in the water and upland. Our system offers minor, short-term impacts in the water because we don't use large aggressive equipment. We don't move large amounts of material at any given time and we can manage what we move upland with minimal impact as well. Do you have a problem with shallow water at your dock? Our system can help with that too.



Dewatering area.



Suction dredging machine at work.

The applications are vast and include: invasive plant suppression, the deepening of waterways and the reduction of the nutrient load.

The traditional method for removing soil entailed having a large construction excavator operate either from your dock or out on a barge. This process is imprecise, not very effective and very disruptive to the ecosystem. Pumps are the preferred method of dredging but the norm in the industry is large, aggressive pumps moving 1500 gallons per minute and only a small amount of silt, which must then be managed upland. The costs and logistics make projects difficult. Our complete process solves these problems, making any sized project achievable.

Options

- **Purchase of Equipment:** We can sell you any of our products with complete training, servicing and permitting.
- **Lease of Equipment:** You can lease our equipment for individual projects or demonstrations.
- **Service Work:** If you can get us enough clients, we'll travel to your lake and solve problems.
- **Business Opportunity:** If you're looking for a great niche business, this is it!



Before suction dredging the pond was choked with invasive vegetation.



After suction dredging.

For More Information

Call Aquacleaner Environmental at (585) 752-7930.

It's time to renew your partnership with NH LAKES!

Please remember to renew your membership in NH LAKES this spring during our membership drive. The first round of letters went out in March, and you can either return your renewal information in the remittance envelope enclosed with your letter or in this newsletter, or renew online at www.nhlakes.org. **When you renew your membership, you renew our partnership in lake protection, becoming an integral part of a network of partnerships across the state.**

We have many partners—lake associations across the state, maybe your lake association; nonprofit organizations working with us toward protection of the state's natural resources; small businesses who recognize the benefits of our work; corporations who fund special projects like the Lake Conservation CorpsSM; municipalities that contribute funding to the Lake HostTM Program; state and federal collaborators who leverage their own resources on our behalf; and legislators who shape policy, and listen to the viewpoints of our membership which we bring forward as we represent you.

By far our biggest partner this year is our membership. Rejoin NH LAKES and renew your partnership with us to move these things forward for 2009, and more:

- 250+ new jobs through the NH LAKES Lake Host Program with the single task of preventing the spread of exotic invasive aquatic weeds that threaten to choke our beautiful lakes
- Continue to work with NH Department of Environmental Services to help promote and provide alternative methods of exotic invasive aquatic weed control in infested lakes and ponds

- 20+ first-time jobs for teenagers in the field of conservation, as they trouble shoot and fix pollution problems at Meredith, Laconia and Pittsburg lakes through the NH LAKES Lake Conservation Corps
- Fighting for legislation that reduces harmful chemicals in our water, like phosphorus, and increases funding to prevent exotic invasive aquatic weeds from ruining our lakes and ponds

We know for a fact that the economic impact of swimming, fishing and boating in our surface waters generates \$378 million in sales, \$134 million in income annually and provides 5,990 jobs. Keeping our lakes healthy ensures that this will continue.

With your help, and the help of all of our partners, NH LAKES will continue to mobilize our combined resources toward the single task of keeping our lakes and watersheds healthy and protected.



Membership Matters

New Members – January 27, 2009 through April 21, 2009

Individuals

Mrs. Priscilla K. Maynard • Mr. Robert Varney

Businesses

Pellettieri Associates, Inc. • Certified Erosion Control–NH • Nashua Sports & Cycle

Along with the 212 members renewing since our last newsletter, we welcome back rejoining friends!

Individuals

Barbara and Frank Aquilera • Mr. and Mrs. H.L. Betournay • Mrs. Helen J. Bradley
Chris Burnett • Raymond Buskey and Lonnie Larrow • Linda and Ron Clark
Mr. and Mrs. Hugh Crawford • Mr. and Mrs. W. Patrick Decker • Martha R. English
Hon. and Mrs. Fremont-Smith • Mr. and Mrs. Kevin Haggerty • Mr. and Mrs. Dudley Hall
Susan Holland • Mr. Irwin Leff • Mr. Frank and Dr. Margaret Lunn
Mrs. Albertine Mahoney Tom and Susy Mansfield • Mr. and Mrs. Carl F. Mellin, Jr.
Leon A. Pierce, Jr. • Steve O'Neill • Harold and Judith Ricker • Virginia Anthony Soule
Louisa C. Spencer • Carl and Sheila Thieme • Marjorie Tuttle • Ms. Marie T. Wood

Businesses

Aquatic Control Technology, Inc.

Help us update our database!

We appreciate receiving the few emails and notes you've sent in correcting our database during the current membership appeal! We do everything we can to make sure our communications with you are accurate. If there is a name you prefer we use (other than your formal name) or your address has changed recently, please drop us a line or write the new information on your next remittance envelope so that we can update our records...and so we can stop calling you Penelope if you are really Penny!

Keep NH LAKES on your “Precious” list

A letter from the Development Committee

Please pause for a minute and think of the roles lakes play in your life. Family memories. Recreation. Spiritual renewal. Countless others. How could you repay their many favors?

We know that thoughtful New Hampshire lake enthusiasts are investing careful consideration in their charitable giving priorities. 2009 will be a year when each of us decides what is precious and what is expendable. For me, the distinction is self-revealing. New Hampshire’s lakes make an incredibly precious contribution to the quality of the only life I have.

Jared and the staff are working hard making plans to ensure continued protection of New

Hampshire’s lakes with resources carefully measured. NH LAKES will succeed, and we need your continued help.

What if NH LAKES hadn’t been protecting our lakes in 2008?

- 55,000 launching boat inspections would not have taken place
- 224 hitchhiking milfoil and fanwort plants would have begun destroying lakes
- Four key legislative measures promoting water quality and boating safety might not have passed
- The Lakes Congress would not have been conducted

In short, NH LAKES makes significant contributions to our “quality of lake” and there is no substitute provider for the environmental work we all want done.

As you prioritize your gift giving for 2009, help guarantee the important work NH LAKES performs for you year after year. Please keep NH LAKES in your “precious” column, and give back to your lakes in the full measure they give to you.

Thank you.



*Joe Goodnough, Acting Chair
Development Committee*

Enjoy LakeFest 2009!

Mark your calendar for LakeFest 2009, taking place the evening of Thursday, July 23, at the gorgeous Inn at Church Landing in Meredith on the shore of Lake Winnepesaukee.

LakeFest is an evening to come together in celebration of our lakes, filled with delicious food from local restaurants, wine tasting and cider and beer sampling from select New Hampshire brewers. This year, our fundraising auction will be replaced by a series of raffle items so that we can offer a range of great prizes for you to take home, yet keep the event flowing with socializing, tasting and just enjoying the camaraderie of the lakeshore experience.

Tickets for our annual fundraiser are on sale now for \$50 each, and can be purchased online at www.nhlakes.org/lakefest or by calling the office (226-0299) to place your reservation. We will be pre-selling in May to our members and friends, and then opening up ticket sales to the broader community starting June 1. The event hall only holds 250 people, and we sold out last year’s LakeFest—so make sure to get your tickets early. And bring your friends for this fun and tasty celebration!

Keep your eye on our website as we update it with raffle items and other announcements as the event unfolds.



Attend LakeFest to celebrate our lakes!

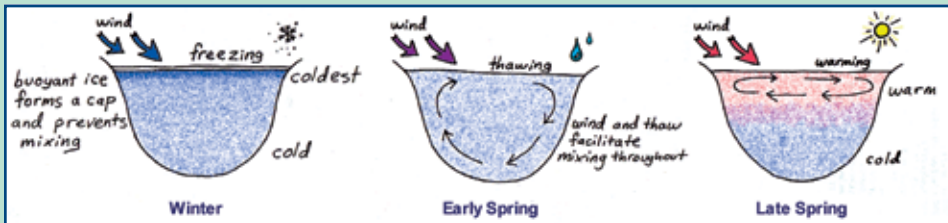
Lakes In Spring

Ah, the ice on your favorite lake has finally melted and you may be feeling rejuvenated as daydreams of swimming in the lake fill your head.

After a long winter, the lake is also experiencing rejuvenation. Now that the ice has melted, the lake is no longer sealed off from the atmosphere. The spring winds are helping to mix much needed oxygen into the oxygen-starved waters, bringing relief to many of the aquatic organisms that rely on this vital com-

ponent. The spring rains are contributing important nutrients including phosphorus (but hopefully not too much!) that plants and algae, which make up the base of the aquatic food web, need to grow. And, the sun's intensity is increasing everyday, slowly warming up the surface water of the lake.

You won't have to daydream about your first swim for too much longer—soon the water will be warm enough!



Lake circulation patterns change as the seasons change.

Upcoming Events

NH LAKES Events:

- **Mid-May through Mid-June:** Lake Host Program Trainings, Concord.
- **May 14, 7 p.m.:** *New Hampshire Water Resource Primer* public meeting. Forest Society, 54 Portsmouth St., Concord.
- **June 26:** Lakes Congress, Colby Sawyer College, New London.
- **July 23:** LakeFest, The Inn at Church Landing, Meredith.

For more information regarding these events, please contact NH LAKES at info@nhlakes.org or (603) 226-0299.

Other Lake-related Events:

- **June 28 – July 20:** The Great North America 2009 Secchi Dip-In. For more information visit dipin.kent.edu.
- **July 17, 18, 19:** Lakeside Living Expo, Gunstock Resort, Gilford. For more information visit www.lakesidelivingexpo.com.
- **July 18:** NH Annual Loon Census. For more information, contact the Loon Preservation Committee at (603) 476-5666 or jcooley@loon.org

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Membership Matters

It's time to renew your partnership with NH LAKES!

Lakes in Spring

Upcoming Events