

Lake Rescue Association 2017 Membership Directory

Including suggestions for lake property owners:

So You Live on a Lake



This publication is sponsored by the Lake Rescue Association for the benefit of everyone who lives on and enjoys the beauty of Lake Rescue, Lake Pauline, Round Pond and adjoining areas. The suggestions given are the accepted practices of the Vermont Agency of Natural Resources, Lakes and Ponds Division.

We hope that you will carefully consider and follow the recommendations offered herein for the greater well-being of our lakes.

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So you're the proud owner of a lakeside home, or you're thinking of building a new home, addition or improvement on your lake property. Congratulations!! You've chosen a spectacularly beautiful location. Now you can join the effort to preserve that beauty, especially where the lakes are involved. This booklet was created especially to help you do that.

SHORELINE PROTECTION

It's the law! In July 2014, Vermont established the Shoreline Protection Act, requiring a permit for new development, re-development, or clearing of a property within 250 feet of lakes and ponds over 10 acres in size. This legislation was enacted to allow reasonable development along the shore lands of lakes and ponds while protecting aquatic habitat, water quality, and maintaining the natural stability of shorelines. The Vermont Agency of Natural Resources administers the law through the Department of Environmental Conservation. Permits are now required for the creation of cleared areas or impervious surfaces (e.g., driveways, roofs, etc.). The agency has published a handbook which describes details of the law and permitting requirements, which can be found at: http://dec.vermont.gov/sites/dec/files/wsm/lakes/docs/Shoreland/lp_ShorelandHandbook.pdf

Preventing runoff Eroded soil is the number one pollutant in Vermont lakes and ponds. The sediment washed into the lakes is filling in our coves and the boating channel at an alarming rate. Your association and volunteers around our lakes have been working with the town in using grants from a state program called Better Back Roads to correct drainage problems along our country roads. Catch basins and culverts have been installed in problem areas. Each resident must practice responsible property management to stem the sediment problem.

Residential homes and the additional buildings on your property, your driveway and landscaping all introduce new substances into the lake, many of which degrade water quality. How does this happen? Dramatic changes occur when forestland is developed. Most of these changes directly or indirectly increase the phosphorus levels that leach into the lake. (More on the harm done by phosphorus to come.) Paved areas and buildings reduce the amount of soil to absorb water runoff. Grading flattens small-scale irregularities in the forest floor and the spongy surface soil which stores water.

So during construction, surround the work area using mulch, hay bales, and strong silt fences to contain any temporary runoff. Be sure to seed or replant bare soil within 6 weeks or, if not possible, before winter.

Preventing driveway runoff Have you checked your driveway lately? Every road or driveway particularly those on hillsides can become a conduit for rainwater or snow melt, eroding the road material and introducing it into the lakes. If the runoff is turbid during rain events, there may be ditches, banks or back slopes that need stabilizing. Please check your driveway and its borders for signs of erosion that may need correction.

There are a number of solutions you can consider. You can have your driveway crowned regularly. Crowning gets the water off the roadway as soon as possible. Water bars are especially good for steep slopes. They keep the volume of flow on the road/driveway from increasing and send it off to the side into a vegetated area for absorption. Retain or plant vegetative buffer strips along roads and stabilize road ditches by seeding or with rip rap. Plants slow runoff from the road and driveways and help to remove sediment and phosphorus before they reach lakes or streams. If any water is forming a channel directly into the lake, this should be remedied right away. To see good examples of road/driveway maintenance, check the LRA website.

More information can be found at www.vtwaterquality.org/lakes.htm, Lake Protection Series #5, Preventing Driveway Erosion.

Creating buffers - go wild! There are many ways to reduce the damage from sediment and phosphorus buildup. The list includes simple interventions to more complicated ones. One of the most important is to leave a wide buffer of natural vegetation between soil disturbance and the lake. Restoring a shoreline with vegetation of different types (groundcover, shrubs and trees) will stabilize the shore and require little maintenance. Diverting as much runoff as possible into vegetated areas is another effective intervention. The Vermont Agency of Natural Resources suggests that buffers are the single most important water protection measure. Studies have clearly shown there is a link between a property's value and clarity of a lake's water. For help in choosing the right plants for your buffer, view the Lakes and Ponds Section at: www.vtwaterquality.org/lakes.htm and request Vermont Lake Protection Series #3 and 3B. You can also find lake resources and valuable information at the VT Department of Environmental Conservation. <http://dec.vermont.gov/watershed/lakes-ponds/lakeshores-lake-wise/resources>.



Trees take years to grow and minutes to cut down.

It's ok to prune lower branches from trees and thin out shrubs to open up or maintain partial views, but it is important not to eliminate them altogether. Allowing some small trees to grow is recommended as eventually the large ones will need "replacing." The spongy "duff" layer of decomposing leaves under trees and shrubs is also a very important aspect of filtering runoff and is why lawns don't work as well as the natural forest floor. Refer to the Shoreland Protection Act Vegetation Protection Standards for more information on what kinds of tree thinning and pruning are allowed near lake shores.



Artificial structures

Your guardianship of Lake Rescue and Lake Pauline naturally involves the waterfront itself. Artificial structures alter the natural functions of a shoreline by removing vegetation and altering the natural lake bottom. Any work that occurs in the lake beyond the average summer water level requires a Shoreline Encroachment Permit. Docks for non-commercial use mounted on posts or floats are allowed without a permit and must be removable. However, there are important criteria that must be met. For instance, the combined length of all docks located within 100 feet of each other which are owned or controlled by the same person must not exceed 50 feet and the total surface area must not exceed 500 square feet. Current requirements also apply to materials used. Information concerning when a permit is required and further regulations on docks can be obtained by contacting the Lakes and Ponds Unit, Department of Environmental Conservation. Also check the LRA website.

No beach is a good beach.

Natural beaches are rare in Vermont! Adding sand or other fill puts phosphorus into the lakes and suffocates the natural bottom habitat. Also, sand which is not stabilized by vegetation washes into the lakes. This accelerates the filling in of our lakes.

Only you can protect your shoreline!

Alteration of the natural shoreline destabilizes the shoreline, increases erosion, and impairs fish and wildlife habitat. Creating or maintaining vegetation buffers, leaving trees and existing rocks in place, and preventing runoff are important steps you can take. Minimize construction of piers, breakwaters, retaining walls, etc. Check with the new Shoreland Protection Act guidelines before making any changes. We should all be good lake citizens and do our part in preserving the health and beauty of our lakes.

PROTECTING OUR LAKE WATER

Eurasian Milfoil and other invasive species

One of the most important things

residents and visitors can do to preserve our lakes is to guard against introducing or promulgating Eurasian milfoil and other invasive aquatic species in our lakes. Exotic plant and animal infestations are a serious problem in our lakes, causing significant recreational, monetary and ecological damage. Only careful vigilance by all lake users can prevent the spread of harmful species. Lake Rescue Association's success in keeping our lakes free of Eurasian milfoil was unique in all of New England until Tropical Storm Irene in 2011, after which the presence of milfoil was found.

What can I do?

Make sure you aren't transporting organisms from one lake to another. Inspect your boat and consider volunteering your time to check boats coming into our boat and fishing access. Carefully wash your boat (and other gear) before moving it into our lakes. Learn to identify Eurasian milfoil, water chestnut and zebra and quagga mussels. Don't dump bait buckets or aquariums into lake water. The LRA has an active milfoil eradication program underway. If you see plants you suspect might be milfoil, report the lake location of your sighting to the LRA board on their website. Do not try to remove the plants yourself, as improper removal will only spread the seeds and growth of the plants.

How's your septic system?

Learn about your septic system. Some of those around the lakes are very old.

Don't add garbage disposals or washing machines unless you are sure your system meets current standards. Remember that adding bedrooms to your cottage might require additional septic capacity. Pump septic tanks every few years and replace systems that don't meet standards.

If you are seeing algae blooms or excessive weed growth off shore, check that your system is not the cause. A poor or overloaded system can introduce disease-causing organisms into the lakes resulting in a human health threat.

The Department of Environmental Conservation of the State of Vermont is responsible for all the septic systems in the state (not the town of Ludlow). A permit is required for a new septic system or to modify an existing system. A licensed designer is required to design any proposed system and would complete the application form for the permit required by the state.

Are you curious or concerned about your septic system? Look up the contact information for the current state regulations on the LRA website or at the Department of Environmental Conservation website.

Phosphorus – another threat.

Watch out for phosphorus. It is out to ruin our lakes. Phosphorus is a fertilizer, and as such, promotes the growth of algae and aquatic plants in lakes. This phosphorus comes from eroded soil, lawn fertilizers, road dust, grass clippings, motor oil, septic system effluent, and other sources. With excessive phosphorus comes excessive algae which reduces water transparency, alters wildlife habitat, impairs scenic views, reduces recreational appeal and lowers property values.

Use non-phosphate detergents. Check the labels of products purchased outside of Vermont. Detergents containing phosphate have been banned in Vermont. Do not wash cars near lakes, streams, or drainage ditches. This can lead to phosphorus going directly into the lake.

Get the lead out!

Switch from lead sinkers to those made from steel or other materials. Lead sinkers lost in the lakes are often mistakenly eaten by fish or waterfowl such as loons causing deaths due to lead poisoning.

Gas and water don't mix.

When considering an engine change, please replace two-stroke engines with four-stroke or direct-injection two-stroke engines. Two-stroke motors emit 20-30% of the fuel-oil mixture unburned into the lake. Four-stroke engines are quieter, use half the gas, and have 90% fewer emissions.



NOISE & LIGHTS



Please keep in mind that water magnifies sound. Being part of a lake community does require the responsibility of being a good neighbor. Be considerate when using outdoor speakers, boat radios, loud motors, and fireworks. Owners, please remind your renters to observe lake etiquette. Lights that shine on the water can reflect into neighbor's windows and can be very bright. Please confine spot lights and other outdoor lighting to shine only on your own property, and use them only when needed. Consider the impacts of both noise and lights especially late in the evening, during "quiet hours" between 10 pm and 8 a.m.

SHARING THE LAKES WITH THE NATIVES

The "natives" we are talking about here are the local wildlife. Lakes are part of the diversity of native habitats in Vermont. The important role in providing food, shelter, and breeding areas for fish and wildlife cannot be overstated.

The beauty of loons and eagles

How lucky we are to experience the occasional regal soaring of a bald eagle across the lake, or the mystical cry of a distant loon. Staying away from loon and other nesting areas allows desirable ducks and birds to increase their populations. Loons are very territorial and too much interference will cause them to leave our lakes. Let them be! We have a special loon nesting area on Lake Rescue.

Oh no - we have geese!

Geese are not to be encouraged due to their size and numbers which pollute both lawns and lakes. It might be worth adding a buffer zone of plants and shrubs at the edge of your lawn. Hopefully the geese will not park on your property if they find it hard to get to. Don't feed the waterfowl. Resident duck and especially geese populations increase disease causing bacteria in the water and can increase the incidence of "swimmer's itch."

Leave it to beaver?

Beavers have always been a part of the natural habitat of our region. Their numbers have become robust in recent years, and have notably increased in our lakes since Tropical Storm Irene in 2011. Beavers are highly intelligent and social, and are a valuable natural resource, contributing significantly to the creation of vital wetland habitats that support biodiversity and essential ecological processes. However, they can also cause significant property damage in populated areas, including felled trees, disruption of water flow, and contaminated water. The LRA does not take a position on the presence of beavers in our lakes, but advises concerned homeowners to use best practices for protecting vulnerable trees from beaver damage by accessing the Vermont Fish and Wildlife Department publication, Best Management Practices for Resolving Human-Beaver Conflicts in Vermont (http://www.vtfishandwildlife.com/wildlife_furbearer.cfm#beaver)

RECREATING ON THE LAKES

Being safe is most important to your enjoyment of our lakes. An important first step is to become familiar with Vermont boating regulations (www.boatsafe.com/vermont).

Safety and age requirements Persons less than 12 years of age cannot operate any vessel powered by a motor of more than 6 horsepower. Anyone born after January 1, 1974 must successfully complete an approved boating safety course prior to operating any motorized vessel. There is an online Basic Boating Safety Course that meets this requirement.



There are important requirements for the wearing of personal flotation devices (PFD). Persons less than 12 years of age must wear a U.S. Coast Guard approved PFD when above decks and underway. Also, there must be an accessible PFD for each person on board. Remember safety and state law require those under 16 wear a PFD while on a sailboat, and all of those being towed, no matter what age, must wear an approved life jacket.

Be sure you are licensed! The state wardens are very serious about enforcing state laws regarding having a fishing license. Licenses for the whole year or ones for just 1, 3 or 7 days can be obtained at a number of local shops and online at www.vtfishandwildlife.com/buylicense.cfm. Children under 15 do not need one. Also any boat owner who operates a boat with a motor attached must register the boat. Boats can be registered by filling out an application that can be obtained at any Motor Vehicle office or State Police office.

Keeping EVERYONE safe A tremendous responsibility for boaters is guarding the safety of those who are swimming or in slow moving boats, such as canoes, kayaks, and sailboats. Keep in mind that boats without power have the right of way. Vermont regulations state that boats within 200 feet of shore, dock, swim area, person in water and other vessels or

anchorage, must travel at less than five miles per hour and must not create a wake.

With our lake's size, keep in mind that a reasonable and safe distance from other vessels, people and property must be maintained so as not to endanger life or property. When towing anyone, there must be two persons on board, one to operate the boat and watch ahead, and the other to observe the person being towed. The observer must be at least 12 years of age. Please remember that tubing and water skiing are not an excuse for reckless driving.

There are, in addition, some guidelines that have been suggested by the Lake Rescue Association that contribute to everyone's enjoyment of the lakes. Boat traffic should travel in a counter-clockwise direction. For the benefit of those who may want to sleep later or have a quiet evening, water skiing and fast boating are discouraged before 8:00 A.M. and after dusk. There is more information about the Lake Rescue Association boating safety rules on our website (www.lakerescue.org) and at www.boat-ed.com/vt/handbook/pdf_index.htm.

We have a unique landmark, the Red Bridge, which draws not only sightseers and swimmers but illegally parked cars as well. Please be aware of traffic which you often cannot hear and of slippery rocks along the shore.

The lakes region is very special and very popular with children playing, walkers, joggers and bikers. Encourage those in your household to drive slowly and carefully.

How about those buoys? You have all seen the "no wake" buoys in the channel and in the lake coves. "No wake" means motoring at 5 mph or in such a way that you don't make waves! These buoys serve two important purposes. They help to make the lake safe in congested areas, and they protect the banks from erosion in more confined areas.

Ice safety There is never a guarantee that a frozen lake is a safe place to be. Hidden soft areas, cracks, incoming tributaries, and boulders installed around docks all present unseen and unpredictable dangers. The utmost caution should always be used when venturing out on a frozen lake. Some precautions include: 1) always go on a frozen lake with a buddy; 2) wear a PFD under your winter gear; 3) beware of ice covered by snow, which can insulate ice and keep it from freezing, hide cracks and weak ice; 4) steer clear of lake edges, which may be softened by incoming moving water; 5) keep pets on a leash, and do not attempt a rescue a pet who falls in – call for help; 6) carry a length of nylon rope to throw to your buddy; 7) carry

handmade or purchased “ice claws” to help you climb out of the water should you fall in (see <http://www.dnr.state.mn.us/safety/ice/claws.html> for more information on making your own ice claws).

IT'S IN YOUR HANDS

Obviously, it is not possible to maintain all watersheds in a pristine undisturbed state. Tropical Storm Irene in 2011 was a sober – and for many, devastating - reminder of the fragility of our lake ecosystems. But the human impacts of land use on water quality can be dramatically reduced if everyone does their part. It is the cumulative effect of many people living, working and playing in the lake region that contributes to changes in water quality over time. Consequently, only by proactively tackling the sedimentation of our lakes, and changing or breaking old bad habits can we lessen our detrimental impact on water quality and the beauty of our lakes. Learning to live in a more equal partnership with nature and her resources will keep our lakes as healthy as we found them. Please consider joining the Lake Rescue Association. Become a part of the solution and help the Association educate lake residents on how to preserve Lake Pauline, Lake Rescue, Round Pond and the Black River areas. Remember the health of our lakes is in your hands.

MEMBERSHIP IN THE LAKE RESCUE ASSOCIATION

The LRA was formed as a corporation in 1954 and has met regularly since that time and now operates as a 501-C-3, not for profit educational organization. The mission of the LRA is to promote water safety, environmental education, and improved water quality. Our aim is to preserve and protect our fragile lake environment for our own enjoyment and for generations to come. LRA membership is comprised of the majority of the homeowners who live in the lake region, which consists of Lake Rescue and its adjoining Round Pond, Lake Pauline and the surrounding watershed. Go to the [LRA website](#) to learn how to join the Association. Membership dues are used to hire divers who search the lake regularly for milfoil, to support a fund addressing long range solutions for a variety of lake issues, including milfoil eradication and the growing sediment problem, to promote safe boating and swimming, and to study our water quality, among other things.

We hope that this publication helps us take steps in that direction.

www.lakerescue.org

Additional information can be found on the Lake Rescue Association's website. Visit the Association's website for information about LRA's participation in the control of Eurasian Milfoil, lay monitoring of our changing lake, sediment surveys, Better Back Roads' grants, water safety and committee activities. Contact information for Board Members can be found on the website. They welcome your questions and suggestions.

Important websites

Lake Rescue Association
www.lakerescue.org

Department of Environmental Conservation
www.anr.state.vt.us/dec/dec.htm

Water Quality Division, VT
www.vtwaterquality.org/lakes.htm

Vermont Fish & Wildlife
www.vtfishandwildlife.com/buylicense.cfm State Police-

Marine Division
www.boatsafe.com/vermont Handbook of Vermont Boating

Laws & Responsibilities
www.boat-ed.com/vt/handbook/pdf_index.htm

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