

Top six ways to protect your property and Maine's lakes

1. *Leave it to nature*

As a shorefront property owner, you can fight nature – at great cost and effort – or you can work with it.

Just keep thinking about rain, erosion, phosphorous and all the problems they can bring to a lake. Then imagine a manicured lawn rolling to the lakefront.

When the rain comes down or the sprinkler is on, water speeds over that flat, green surface nearly as fast as it would on an asphalt driveway. So by planting, pampering, watering and mowing that lawn, you've created a slippery

chute that sends soil, sediment, phosphorous and chemicals straight into the lake.

In fact, any time you remove vegetation or expose bare soil, you're dramatically increasing surface runoff and the potential for erosion. That's why there are state and local laws regulating shoreline alterations and why many alterations that were once common practices are no longer allowed.

But there's an alternative, one that saves your time and money, and also protects the lake's water quality. Nature already has a time-tested



Native plants and trees soak up a huge amount of surface water runoff and provide erosion control, privacy, and fish and wildlife habitat.



When there's not enough vegetation to absorb rainwater, it erodes soil and washes pollutants, such as oil, fertilizers, pesticides and phosphorous, into our lakes. Erosion is the Number 1 source of pollution to Maine's surface waters.

strategy to slow rainwater down so it can be absorbed into the earth before it reaches the lake. It's called natural vegetation.

The best option is to simply leave the existing rocks and vegetation along the shore in place. Native plants along the lakefront bond the soil together. Trees soak up a huge amount of surface water runoff and provide erosion control, privacy, and fish and wildlife habitat. That's why bushes, shrubs and groundcovers within the first one hundred feet of lakes and ponds are protected by state and local laws and should be left undisturbed.

In fact, all alterations of the shoreline require state and local permitting and approval. So it's a good idea to pick up a copy of your local shoreland zoning regulations before doing any work. For example, trees may be limbed up to one third of their height to provide a view of the lake, but tree cutting standards within the shoreline zone vary from town to town. If you're not sure about the laws or have any questions, call LEA or your local Code Enforcement Officer before removing trees, disturbing soil or making any alterations.

All new structures must meet the required setback from normal high water. The setback from lakes and ponds is generally 100 feet but can be more depending on individual town ordinances. For instance, Bridgton has a 112' setback for solid wall foundations.

If your shoreline has already been altered, you can plant a buffer of native shrubs, bushes and groundcovers or just let nature move back in on its own. If a bank is eroding, rip-rap or stone armoring can be installed with the proper state permits. Rip-rap should be used conservatively because the stones do not provide habitat for native species. Rip-rap can trap heat from the sun, heating the water and disturbing wildlife such as fish and amphibians.

If you simply can't live without a lawn, minimize its impact with a buffer near the lake. A small garden will look great and reduce runoff, particularly if you use woody plants with deeper root systems that soak up more water.

But why spend Maine's precious sunny days mowing grass? When it comes to taking care of our lakes and lands, nature does know best.

Sand Beaches

Building new beaches is not allowed under the Natural Resources Protection Act. Temporary docks can be used as an alternative. Imported sand accelerates filling of the lake, destroys fish and wildlife habitat and adds phosphorus to the water. With a DEP permit, however, existing beaches may be raked towards shore to recover sand during periods of low water.

2. *Maintain gravel roads and driveways*

Water should never run directly from a road into a lake or stream. In fact, the vast majority of all erosion and sedimentation problems within a watershed originate from camp roads. So maintaining effective drainage is probably the most important aspect of road up-keep.

The first step to good drainage is building a road that is above the original ground level. This will allow the base and sub-base of the road to dry out and help prevent the road from rutting or becoming soupy.

Maintaining a proper crown is another critical step in providing for adequate road drainage. Crowning a road is essentially creating a slight ridge in the center of the road that water will run away from. In certain areas, it is generally better to have the road slope gently in one direction. This is called ramping. A good slope is usually about one-quarter inch of crown per foot of road width.

Regular grading is necessary to maintain the crown after winter plowing. Grading should be done with a steel tine rake, *York Rake* or *Front Runner* type grader by an experienced operator.

Good ditches also are essential for good roads. Ditches collect road run-off and subsurface water and allow them to drain away from the road.

They should be stabilized with vegetation, or lined with rock, with outlets to low, natural areas away from any water bodies or wetlands.

Ditches should be U-shaped to allow for the water to flow over a wider surface area, as opposed to V-shaped ditches, which are prone to erosion.



Good ditches are essential to collect road run-off. Above, the ditch has badly eroded, but below (shown from opposite angle), it's been armored against erosion with crushed stone.



3. *Use erosion control on construction*

Any project that requires soil disturbance such as building a home, addition, garage, or driveway should be planned with erosion control in mind.

Crushed stone infiltration beds should be installed along the drip edges of buildings to catch roof runoff.

You can also prevent water from running directly into lakes or streams by maintaining the natural topography and natural vegetation and by diverting run-off into wooded areas.

Erosion control measures such as silt fences, erosion control mulch berms, and hay bale barriers should be installed before work begins and maintained for the duration of each project. These measures must also be installed correctly to function properly.

Here are important things to consider when installing common erosion controls:

- Erosion control barriers (silt fence, hay bales and berms) must be placed along a contour so that water does not build up in any low area.
- Silt fences must be “keyed in” by burying the bottom four to six inches of the fabric in the ground. If this can’t be done because of frozen ground, ledge or heavy roots, the bottom eight inches of the fence should be set on the ground and covered with clean three-quarter inch crushed stone.
- Hay bales must be placed in a row with their ends tightly abutting. Any gaps should be tightly stuffed with loose hay. Hay bales also need to be “keyed in” at least four inches into the ground to prevent water flow under the bales.

Erosion control berms should be at least two feet wide and one foot high and composed of erosion control mulch, stump grindings or other similar non-erosive material.



A crushed stone infiltration bed catches and controls roof run-off.

4. *Pump out your septic tank*

Septic tank sludge levels should be checked every two years. A tank should be pumped when it is half full or every two to three years for year-round residents and every five to six years for seasonal residents.

Septic tanks must be maintained to function properly. If settled solids are not removed from the tank, they will wash into and clog the leach field. A clogged leach field will cause the system to fail and require replacement.

Septic systems usually have a life span of 20 years or less. Do you know when your system was installed?

To help prolong the life of your septic system:

- Conserve water. The less water you use the better your septic system will work.
- Be cautious with drain cleaners and use bleach sparingly. Sink plungers or drain

snakes are inexpensive and more effective than chemical drain cleaners. Septic systems require living microorganisms to break down waste. Strong cleaning agents will kill these microorganisms and cause your system to fail.

- Don't install or use in-sink garbage disposals. Ground garbage and food waste overburden septic systems and slow their functions. Composting vegetable scraps is good for the environment and improves soil.
- Stay away from commercial products that claim to clean your septic tank without pumping. These products can contaminate groundwater and may clog your leach field.
- Don't put paint or chemicals into septic systems. These hazardous products kill microorganisms and can contaminate drinking and lake water.

Have you noticed signs of a failing septic system?

⇒ Do your toilets flush slowly or back up easily?

⇒ Have you noticed a wet, smelly spot in your yard, especially after doing laundry?

⇒ Is the grass over or around your septic system greener than the rest of your lawn?

⇒ Is the area around your septic system or drain field wet even when it hasn't rained?

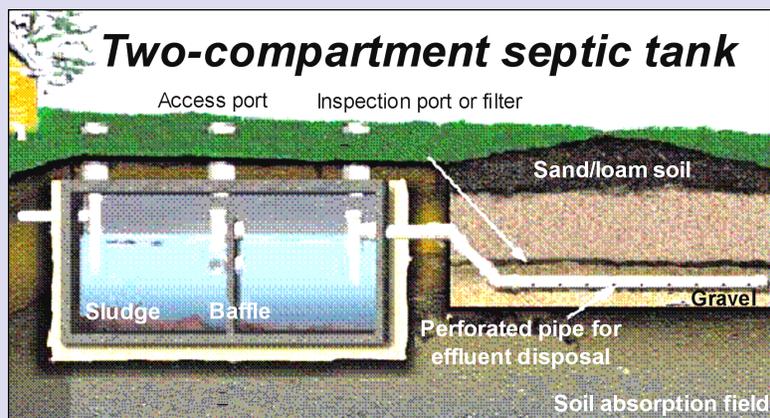




Photo courtesy of Little Ossipee Lake Association

5. Watch out for invasive plants

Milfoil (above) and other aquatic invasive plants are a major threat to Maine's lakes. They can drastically change ecosystems, ruin recreation and severely reduce tourism and lakeside property values. These plants can spread quickly and infest an entire lake from a small plant fragment. Once established, they are nearly impossible to remove. Control methods are extremely costly and do not guarantee eradication.

Boating is the primary method by which these plants are spread between lakes and ponds. Plants get carried on motors, fishing gear, anchor lines and trailers and can survive out of water for long periods of time. Prevention is the only effective control measure.

To help avoid spreading invasive plants:

- Check your boat, trailer, gear and anchor lines thoroughly before and after visiting any lake.
- Remove all plants and plant fragments and dispose of them in trash receptacles or on high, dry land.
- Avoid boating in areas of dense plants.
- Support the invasive sticker program.
- Inform others about the dangers of aquatic invasives.

6. Be LakeSmart

LakeSmart, the flagship program of the Maine Lakes Society, is one of the most effective lake protection programs available today. The Maine Lakes Society trains lake association volunteers to assess a parcel's capacity to capture and infiltrate runoff and suggest approved measures to address shortcomings. When judged not to damage water quality, a property is certified to be LakeSmart, and its owners receive the blue and white LakeSmart Award signs. Posted at the water's edge and at the driveway entrance, they signal that a good lake steward owns the property. They also demonstrate what lake friendly living is and thus communicate without words to the whole lake community. Lake associations across the state currently host the LakeSmart program.



This LakeSmart Award sign is proudly displayed by awardees at lakeside and streetside

... and Add LoonSmart



Loons are visual predators. They need clean, clear water in order to feed, breed, and successfully raise their offspring.

Being LoonSmart means fishing lead free, collecting discarded monofilament line, maintaining headway speed within 200 feet of the shore and keeping your distance from loons, especially during their nesting period from mid-May to July 15.

Schedule a LakeSmart Site Evaluation

Visit CLWA Website crescentlakeassn.weebly.com

Evaluations are held Mid-May through Mid-October