



The quality of water on a lake is directly affected by the condition of its shoreline. Without sufficient shade along the shoreline the water temperature rises, affecting fish habitat.



The wildlife living in and around our lakes is affected by how we treat their habitat. Proper management of the shoreline is vital to the life of a lake.



A natural lakeside yard has a shoreline buffer of native trees, shrubs and ground cover.



The shoreline zone provides critical habitat for aquatic insect, microorganisms, fish, and other animals which helps to maintain a balance in sensitive aquatic ecosystems.



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A naturally vegetated shoreline filters runoff generated by surrounding land uses, removing harmful chemicals and nutrients.

# The Importance of Lakeshore Buffers on Panther Pond





**What is a buffer?** A buffer is a band of protective vegetation alongside a body of water; it includes the land and plants next to a river or lake. This stretch of vegetated land will “buffer” the lake from harmful materials flowing across the land after a rainfall or snow melt. Buffers enable runoff to be blocked from entering the lake, materials including eroded soil, excess nutrients and pollutants in runoff water from parking lots, roads, lawns, gardens, farms, junkyards and other paved or clear-cut sites. This contaminated runoff is called non-point source pollution, because it does not come from a particular discharge point.

**How does the buffer deal with these materials?** Plant roots in the buffer hold the banks of the lake in place, stabilizing the soil. Roots also absorb the water and some of the contaminants in it. The bodies of the plants (tree trunks, bushy shrubs, and tall grass) slow the rush of polluted runoff, allowing the water to seep into the ground, where it is filtered and cleaned. Plants and leaf litter catch eroded soil before it reaches the lake.

**Buffers support plants and animals that live near or in the water.** Buffer trees provide shade that keeps water cool for trout and other fish.

**What you can do.** Landowners can make an enormous contribution to water quality by leaving or restoring a strip of native plants along their segment of shoreline.

# Ten Tips for a buffered lakeshore

- 1. Natural lakeshores protect fish and wildlife.** The more homes, resorts, marinas, roads, and docks we build near lakes, the more we endanger the habitat of the fish and wildlife that live in and around the lake. Preserving native vegetation around lakes is critical to a healthy lake ecosystem.
- 2. Shoreline trees protect lake water quality.** Trees and other vegetation along the lakeshore help buffer lakes from the impacts of development. Overhanging trees also provide cooling shade for fish and other aquatic animals that live in the shallows.
- 3. Natural lakeshores keep out polluted run off.** When it rains, pollution on the land (such as sediment from construction sites, oil and grease from roads, parking lots, and fertilizers from lawns) flows into streams and lakes. A natural lakeshore has plenty of native trees, shrubs, and overhanging vegetation to slow the flow of polluted runoff before it reaches your lake.
- 4. Native plants help lake wildlife.** Native plants play an important role in the local ecosystem, are adapted to local conditions, and are generally low maintenance. When planted or allowed to thrive along the lakeshore, they provide shelter, food, and habitat for song birds, butterflies, fish and aquatic life in the lake.
- 5. Plant a rain garden, help your lake.** A rain garden is an attractive landscaping feature planted with perennial native plants. Placed where it can intercept the water running from downspouts or hard surfaces, it allows rain water to soak in rather than run off into lakes and streams.
- 6. Natural lakeshores help prevent erosion.** Natural lakeshores with abundant trees, shrubs, and native grasses are “living shorelines” that use deep, strong plant roots to stabilize soil. Natural lakeshore provide habitat, filter runoff from the land, and create natural buffers that absorb wave energy and reduce shoreline erosion. If your lakeside property has retaining walls, consider replacing them with a softer “living” shoreline.
- 7. “Perfect” lawns are not perfect for your lake – try natural landscaping.** “Perfect” smooth green lawns require frequent mowing, watering, fertilizers and pesticides. When it rains, fertilizers and pesticides can run off into your lake and harm its quality. Consider decreasing the size of your lakeside lawn by planting native grasses, wildflowers, trees, and shrubs to provide lakeshore wildlife habitat, stabilize shorelines, and reduce the need for irrigation, fertilizers and pesticides.
- 8. Lighten up on lawn chemicals, for the lake’s sake.** Fertilizers, pesticides and weed killers we apply on our lawns can wash into our lakes when it rains. Nutrients in fertilizers can lead to algae blooms and lower oxygen levels for fish and other aquatic animals; pesticides and weed killers can be toxic to people, pets, beneficial insects, fish and wildlife. Protect your lake by minimizing or eliminating use of fertilizers and other yard chemicals. To minimize fertilizers have your soil tested to determine deficiencies.
- 9. Natural landscapes are picture perfect.** Studies show that most of us come to lakes simply to enjoy their natural beauty. Natural lakeshore are beautiful; they also contribute to improved water quality, which can help preserve the value of lakefront property.
- 10. Get involved! Protect Panther Pond’s natural shore line.** Begin by being an example to others and ensure that your lakeshore property is as lake friendly as it can be. Educate your neighbors and friends about natural landscaping, native plants, living shorelines, and the importance of lakeshore buffers in protecting the quality of your lake. Contact the Panther Pond Association ([ppa@raymondmaine.org](mailto:ppa@raymondmaine.org)) or Raymond Waterways Protective Association ([lakes@raymondmaine.org](mailto:lakes@raymondmaine.org)) to learn more.

(Adapted from [maine.gov/dep/water/lakes/publake](http://maine.gov/dep/water/lakes/publake))