

GAMIING

Nature Centre

Buffer Zones



Riparian buffers are strips of trees, shrubs and grasses that line the edges of waterways. They intercept sediments, pathogens, pesticides, fertilizers and other contaminants that could reduce water quality and harm fish habitat in streams, creeks and rivers. They prevent erosion of banks and improve habitat for fish by shading and cooling the water. They provide protective cover for birds, mammals and other wildlife that feed, breed and rear young near water and enhance your cottage privacy.

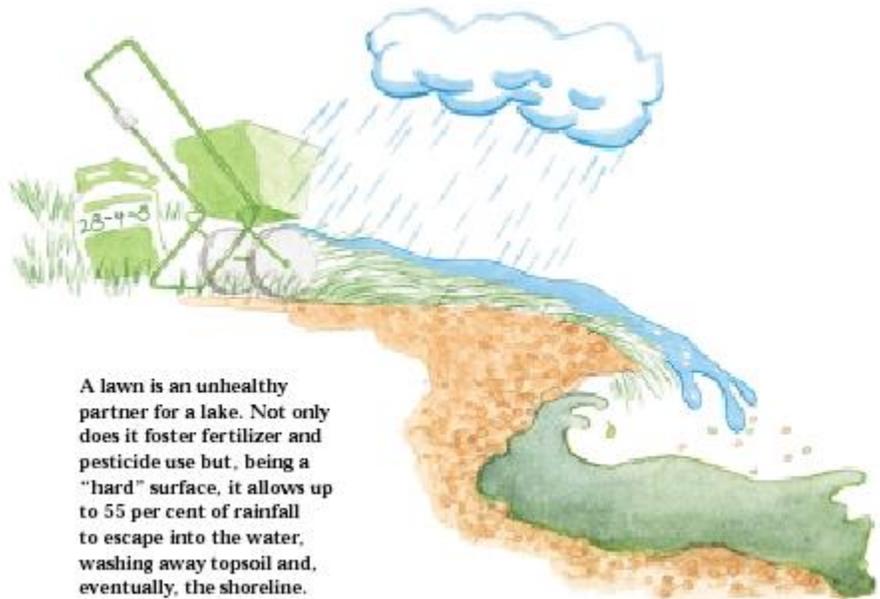
Deep-rooted vegetation such as tall grasses, shrubs, and trees, and aquatic vegetation such as reeds or cattails, help “buffer” the shoreline. By reducing the energy of waves and currents, the buffer zone protects your shoreline from erosion. Vegetation in the buffer zone and elsewhere on the property provides protection from erosion damage caused by surface drainage. Because shoreline properties are on the receiving end of uphill drainage, this is a common problem; the more vegetative cover, the better for you.

What Do Buffers Do?

A properly maintained buffer zone can:

- Remove up to 50 percent or more of fertilizer chemicals and pesticides
- Remove up to 60 percent or more of some bacteria
- Remove up to 75 percent or more of sediment (soil particles)

A Buffer Zone not only prevents erosion but can also reduce the negative impact of flooding. Increasing vegetation, as well as adding logs and rocks along the shoreline, will slow down floodwaters reducing damage to your property. This vegetation also increases the soil’s ability to absorb water.



A lawn is an unhealthy partner for a lake. Not only does it foster fertilizer and pesticide use but, being a “hard” surface, it allows up to 55 per cent of rainfall to escape into the water, washing away topsoil and, eventually, the shoreline.

The Size of a Buffer Zone:

The wider a buffer is, the better it works. As a rough rule of thumb, a buffer extending back 15 m from the top of the bank is sufficient for most cold-water lakes (whose fish suffer more from nutrient runoff), while 10 m will protect a warm-water lake. The natural area should be even deeper on properties with steep, erosion-prone slopes. The key thing to remember is any amount of buffer is better than none at all. If 15 m sounds like too much, consider going *au naturel* in stages, adding a bit more each year by working back from the shoreline in 2 m strips. Begin with a 3 m wide strip as a minimum standard and work from there.

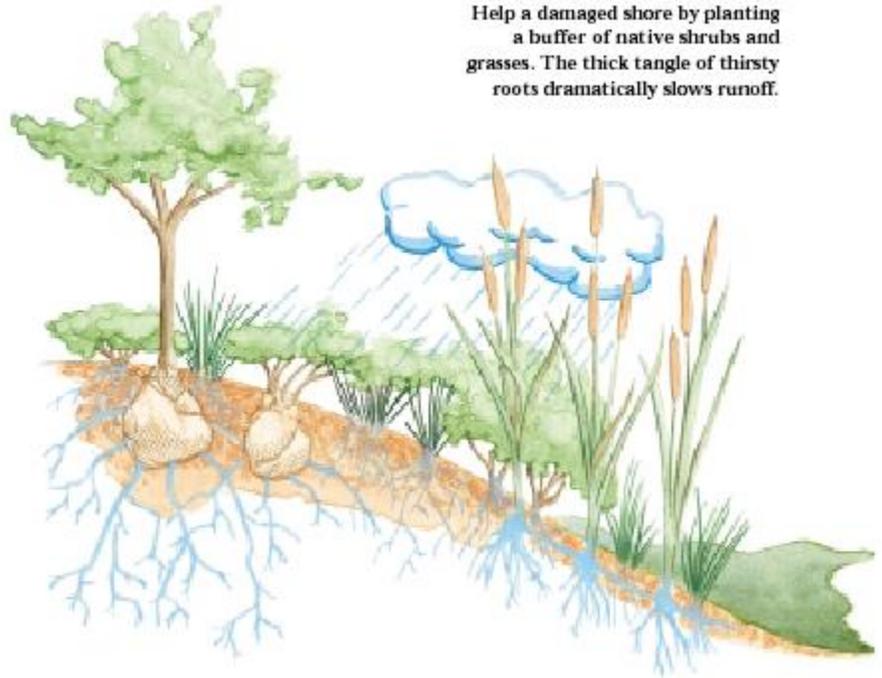
Buffer Zones and Native Plants:

A buffer zone of native plants is one of the best ways to protect shorelines from erosion or stabilize the shoreline if it is already eroding. Preferably, the buffer zone is made up of a variety of native vegetation that normally would grow in your area – trees, shrubs, wildflowers, and grasses. It also includes plants that might naturally grow below the high water mark, either along the shoreline or in the water (for example: cattails, rushes, and aquatic plants). Be sure to leave the native aquatic plants in place as they help to absorb waves and reduce erosion. In addition to controlling erosion, materials like driftwood, logs, native plants, and aquatic vegetation also provide food and habitat for wildlife.

Starting a Buffer Zone:

Mother Nature will do most of the work for you!

- Leave a few feet of lawn unmowed by the water's edge. Native grasses, shrubs, and trees will colonize the area, with the wildflowers and grasses moving in the first year, and shrubs and trees following a year or two later.
- Mark off your buffer strip by tying string or ribbon to stakes to remind you not to mow. Keep the edge a little "ragged". Wildlife and nature prefer flowing lines to straight.
- Refrain from pulling plants that show up in your buffer strip, unless you know for sure they are invasive ones! Troublesome invaders, such as garlic mustard or burdock, can be selectively cut or hand pulled.
- Watch as new plants appear over time. Sit back and enjoy your natural, low maintenance vegetation
- Consider increasing your buffer's width a little bit more each year. Ultimately, the wider the buffer the better.



Help a damaged shore by planting a buffer of native shrubs and grasses. The thick tangle of thirsty roots dramatically slows runoff.

If your shoreline area has been heavily cleared, you can help speed up the process of creating a buffer by planting some native shrubs or trees. Start by looking at the foliage covering natural areas of the lake, and try to duplicate it on your lot. Plant a mix of native plants and shrubs – elderberry, meadowsweet, shrub willows, red osier dogwood, Virginia creeper, and sweet gale. If you like, consider softening the shift from lawn and gardens to the wilder-looking buffer with a mix of showy native plants, such as black-eyed Susan, bee balm, blazing star, and cardinal flower.

Gamiing Nature Centre Can Help:

We offer free consultations for shoreline and habitat restoration projects. Gamiing also has a Native Plant Nursery on site which houses trees, shrubs and wildflowers that can help improve your buffer zone and the health of your Shoreline.

For More Information:

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