



**“Nature does not hurry,
yet everything is accomplished.”**

- Lao Tzu

Recreating a Healthy Waterfront

The basis of a natural ecosystem is a complex combination of vegetation that forms canopy, understory, and herbaceous layers. It is easier to maintain this complexity than to restore it after most of the vegetation has been removed.

Plant species native to the Muskoka area are adapted to the diverse weather and soil conditions found here. They are more resistant to pests and diseases, and are more likely able to tolerate droughts.

One of the most critical areas to maintain native vegetation is along your shoreline. Shoreline vegetation benefits water quality by reducing the amount of sediment, nutrients, organic matter and pesticides that enter our rivers and lakes.

There is no better way to prevent soil erosion than to leave your shoreline in its natural state. Plant roots anchor the soil, preventing it from being washed away by currents, waves and rain. This preserves fish spawning beds, which can become destroyed by sediment accumulation due to erosion.



Overhanging branches from trees and shrubs shade the waters to prevent overheating and provide cover for small fish and other aquatic organisms. Debris such as logs and boulders also provide cover for many species, spawning areas for fish, and will serve to reduce the impact of waves on your shoreline.

Many native plant species are extremely attractive. You can create an aesthetically pleasing property while providing food and habitat for wildlife, preventing erosion, and maintaining water quality. The following are some plants that are part of a natural shoreline in Muskoka.

Renaturalizing Your Shoreline

To return to or maintain a natural shoreline, it is important to remember to encourage diversity. The rule of thumb is to attempt to mimic Mother Nature.

- ❖ Plant deciduous, moisture tolerant trees near the water to create overhangs. This provides shade.
- ❖ Limit access points to the water. A continuous cover at the shoreline provides erosion control and shelter for wildlife.
- ❖ Plant native species. These species will be adapted to local conditions and will be hardier than non-native plants. This will eliminate the need to use fertilizers, pesticides or herbicides. These plants will support our local wildlife communities the best.

- ❖ A number of federal, provincial, and municipal laws and regulations influence shoreline work across Canada. Before starting your project, consult with the Ministry of Natural Resources (MNR) or Fisheries & Oceans Canada (DFO) to see what approvals you may require. Under the federal Fisheries Act, the onus is on property owners to ensure that shoreline work does not harmfully alter, disrupt, or destroy fish habitat without the required authorization from DFO.

Strategies for Protection/Restoration

Preservation

- ❖ retain existing natural shoreline
- ❖ minimize access to water to avoid shoreline damage

Naturalization

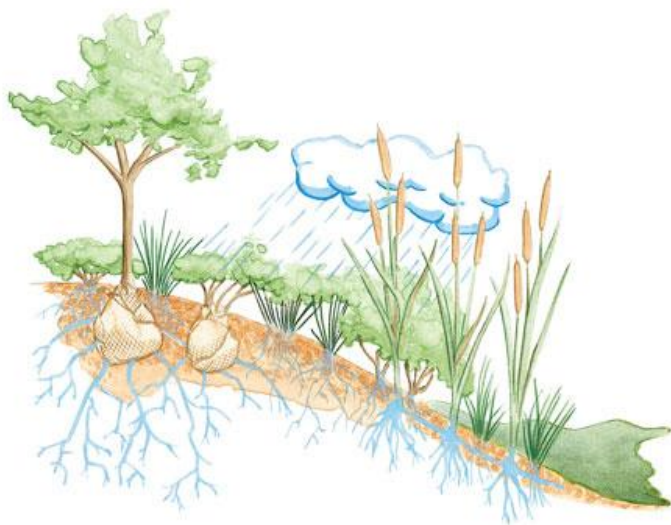
- ❖ leave degenerated shorelines to regenerate naturally
- ❖ "hands off" approach (no cutting, no spraying, no fertilizing, no work)

Enhancement

- ❖ plant native species and remove non-native species such as ornamental shrubs
- ❖ copy Mother Nature

Restoration

- ❖ plant cleared areas with native species
- ❖ duplicate existing natural shoreline



Shoreline Species in Muskoka

Trees

Sugar maple *Acer saccharum*

Known for brilliant fall colour. Best growth in moist, well-drained soils. Shade tolerant.

Wildlife Benefit: abundant seeds eaten by many bird species; nesting tree for robins and vireos.

White pine *Pinus strobus*

Tallest conifer in eastern Canada; sometimes called "whispering pine". Long needles in groups of 5. Grows in all conditions.

Wildlife Benefit: cover and nesting site for birds; squirrels eat seeds in cones.

White birch *Betula papyrifera*

Well known for its white bark. Grows on a variety of soils but likes well-drained sandy loam.

Wildlife Benefit: heavy seed crop eaten by many bird species; buds are important winter food for many birds.

White spruce *Picea glauca*

Conical shaped evergreen. Tolerates partly shaded areas. Found on well-drained, moist soils.

Wildlife Benefit: cover for nesting and winter shelter; seeds eaten by a large variety of birds and small mammals.

White ash *Fraxinus americana*

A hardy, disease resistant shade tree. Thrives on well-drained moist soil with other hardwood species.

Wildlife Benefit: abundant winged seeds are a favorite food for variety of songbirds.

Shrubs

Northern wild raisin *Viburnum cassinoides*

Very common in Muskoka. Brilliant fall colour. Grows in moist to wet soils in full sun or part shade.

Wildlife Benefit: blue fruit eaten by many species of birds; forms thickets providing cover.

Winterberry *Ilex verticillata*

Grows in moist locations and peaty areas.

Wildlife Benefit: flowers attract bees; migrating birds returning in spring enjoy berries.

Pussywillow *Salix discolor*

Wetland and shoreline shrub of medium height. Familiar furry buds in spring, dark reddish-brown bark in winter.
Wildlife Benefit: attracts bees and butterflies in early spring; thickets provide cover.

Highbush cranberry *Viburnum trilobum*

Not related to true cranberry, this medium-sized shrub produces attractive white flowers in spring and red berries in late summer. Grows in variety of conditions but prefers wetlands and stream edges.
Wildlife Benefit: flowers attract bees and butterflies; songbirds devour berries.

Bush honeysuckle *Diervilla lonicera*

Low, upright shrub prefers dry soil in sun and part-shade. Flowers are small and pale yellow, then turn orange or brownish red.
Wildlife Benefit: flowers attract bees and butterflies.

Red-osier dogwood *Cornus stolonifera*

Medium-sized shrub has attractive bright red twigs and stems in winter. Flowers in late June; produces berries in August.
Wildlife Benefit: berries are an important food source for songbirds. Forms thickets that provide cover and nesting sites for birds.

Elderberry *Sambucus canadensis*

Large shrub grows in a variety of conditions. Attractive compound leaf; attractive fragrant white flowers. Dark purple berries used in pies, jellies, and wine.
Wildlife Benefit: birds love the berries.

Ninebark *Physocarpus spulifolius*

Medium-sized spreading shrub has unusual light green leaves. White to pink flowers in June. Usually grows in sandy and rocky soil.
Wildlife Benefit: flowers attract bees and butterflies.

Pagoda dogwood *Cornus alternifolia*

Large shrub or small tree has attractive spreading branches; forms thickets. Creamy-white flowers in June; dark blue berries in August.
Wildlife Benefit: fruit is popular with songbirds.

Lowbush blueberry *Vaccinium angustifolium*

Low shrub grows in a variety of soils but requires open spaces.
Wildlife Benefit: berries are popular summer food source for birds and humans alike.

Wildflowers

Plants for Forest Areas

Wild columbine *Aquilegia canadensis*

Hanging yellow and red flowers that attract hummingbirds. Well-drained soils; rocky areas.

Hairy beardtongue *Penstemon hirsutus*

Trumpet-shaped purple and white flowers. Well-drained soils. Flowers late spring, early summer.

May apple *Podophyllum peltatum*

Large leaves and a solitary white flower. Moist soils.

Plants for Meadow Areas

Pearly everlasting *Anaphalis margaritacea*

Clusters of white and yellow flowers. Dry, open spaces.

Butterfly weed *Asclepias tuberosa*

Bright orange-red flowers. Attracts butterflies. Well-drained soils.

New england aster *Aster novae-angliae*

Purple rays with yellow centers. Moist soils. Flowers August – October.

Wild bergamot *Monarda fistulosa*

Unusual lavender flowers with dense green head. Aromatic. Dry areas. Flowers May – September.

Plants for Streamsides & Pond Edges

Turtlehead *Chelone glabra*

White/pink flowers resembling turtle heads. Attracts butterflies. Flowers July – October.

Cardinal flower *Lobelia cardinalis*

Spike of vibrant scarlet flowers. Attracts hummingbirds. Flowers July – September.

Groundcovers

Approximately 90 percent of the rain falling on a natural shoreline is absorbed before reaching the water, while up to 55 percent of the rain falling on hard surfaces, including lawns, flows right into the lake.

All that runoff hastens erosion, sending silt and sediment into the water where it damages spawning and feeding areas. Pesticides and fertilizers applied to your lawn also play havoc with the aquatic ecosystem. Weed and bug killers may harm fish or destroy the plants and insects that fish feed on, and fertilizers promote algae growth, leading to a greener, murkier lake.

Alternative types of groundcover make use of plants that provide coverage, wildlife habitat and require no maintenance.

Bearberry *Arctostaphylos uva-ursi*

A very low spreading shrub that will grow in partially shaded area. Red berries eaten by birds.

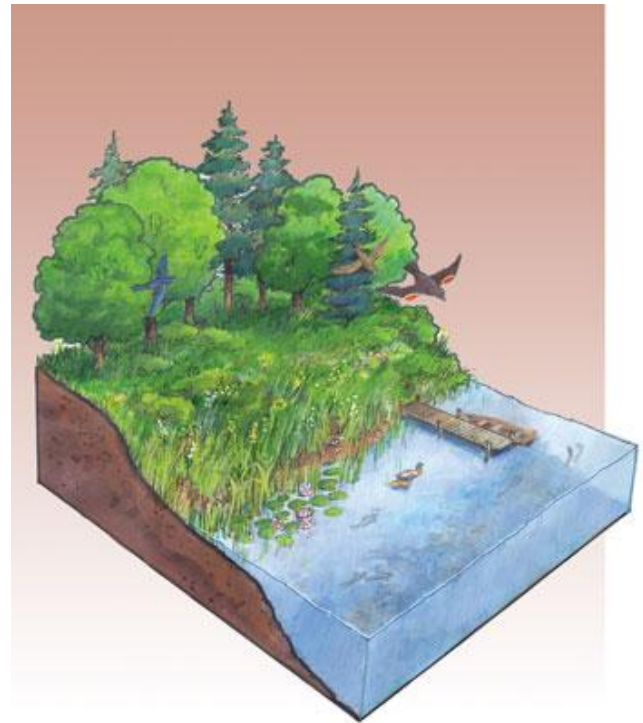
Wintergreen *Gaultheria procumbens*

Low groundcover that likes acidic soil and partial shade. Red berries for birds and humans.

Trailing arbutus *Epigaea repens*

An evergreen creeper that flourishes in poor, often damp soils. One of the first plants to flower in the spring.

Native species have sometimes been difficult or impossible to obtain from commercial sources, however, heightened awareness on the part of consumers and producers has resulted in a better selection of native species being available. Several Muskoka nurseries now carry an impressive variety of native plants. Just ask!



More Information

There are a number of resources available for waterfront owners wishing to protect their natural shoreline area.

The Shore Primer, produced by Fisheries and Oceans Canada in association with Cottage Life, offers cottagers and other landowners constructive solutions for restoring an altered shoreline to its former health and beauty.

On the Living Edge: Your Handbook for Waterfront Living, published by the Living By Water Project, is available from the Muskoka Heritage Foundation at (705) 645-7393.

Muskoka Heritage Foundation – Annual Native Plant Sale

www.muskokaheritage.org/natural/nativetree.asp

Muskoka Watershed Council

www.muskokaheritage.org/watershed

Muskoka Water Web

www.muskokawaterweb.ca