



# Bay of Quinte Remedial Action Plan

## Shoreline erosion and stabilization

### Natural shorelines

The shoreline, often referred to as the “ribbon of life”, is the area where the land meets the water. This dynamic and sensitive ecosystem has tremendous value and is critical to both terrestrial and aquatic species. A healthy, natural shoreline not only provides food and cover for fish and wildlife, but improves water quality by preventing contaminants and excess nutrients from entering the water.

Additionally, vegetation at the water’s edge effectively protects the shoreline against soil erosion.

### Shoreline erosion

Shoreline erosion is a process that occurs along all watercourses and can be caused by a variety of factors. Many are natural, including wind, ice, wave energy, currents, changing water levels, rain and runoff and gravity. The susceptibility of the soil to erosion, however, is greatly increased by human disturbances to the shoreline. Removal of vegetation and alterations to land close to the shore can destroy productive habitat and degrade water quality.

Other negative impacts of erosion include:

- Loss of valuable waterfront property
- The creation of unsafe areas
- Reduction in water clarity
- Increased water temperature
- Chemical and nutrient runoff
- Algae blooms and weed growth

### Preserving the natural shoreline

Keeping your shoreline natural does not have to be time-consuming or expensive. Simply not mowing the grass or cutting the trees and shrubs at least 5 meters from the shoreline will allow natural vegetation to grow and establish. If some vegetation must be removed for access to the water, try to limit the amount. To maintain or improve your view, strategically prune trees and shrubs instead of removing them completely.

### Planting along the shoreline

If you have an actively eroding shoreline, there are measures that can be taken to prevent or control it. These methods range from “soft” to “hard” approaches. Soft methods are preferred and include stabilizing the shoreline by planting native deep-rooted vegetation. Many species of trees, shrubs, herbs and grasses have roots that extend deep into the soil, helping to keep the soil and shoreline together.

When damage occurs to a natural shoreline, these plants can easily re-establish themselves.

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**\* Contact your local Conservation Authority before doing any work on your shoreline - permits may be required**



## Recommended plants for shoreline property owners

### **Eastern Hemlock (*Tsuga canadensis*)**

- An evergreen tree that grows to a height of 20-25 m
- Prefers full sun but tolerates partial shade
- Thrives in wet or moist soils and shoreline areas
- Provides cover for wildlife and deer browse on needles

### **Red-Osier Dogwood (*Cornus stolonifera*)**

- A hardy, deciduous shrub that attains a height of 2-3 m with an equal or greater spread
- Able to thrive in areas of high moisture
- Has a fibrous root system that effectively stabilizes the soil
- Great for shoreline plantings to attract songbirds, deer and small mammals

### **Pussy Willow (*Salix discolor*)**

- A shrub that reaches a height of 2-3 m
- Prefers wet or moist soils and grows in full sun or partial shade
- Offers nesting and shelter to a variety of birds

### **Fragrant Sumac (*Rhus aromatica*)**

- A sprawling, small to medium deciduous shrub that is usually less than 1.5 m high
- Grows in sunny, open areas
- Used by birds, rabbits and deer

### **Narrow-leafed Meadowsweet (*Spiraea alba*)**

- A deciduous shrub reaching 1.5 m tall
- Forms thickets in wet meadows and along riverbanks and lakeshores
- Provide food and shelter for songbirds, butterflies, moths and insects

### **Black Chokecherry (*Aronia melanocarpa*)**

- A deciduous shrub that grows to be 1-3 m tall
- Prefers wet soil and shade
- Found on shrubby lakeshores and in swamps
- Many birds, small mammals and deer eat the berries.

### **Blue Flag (*Iris versicolor*)**

- A perennial herb that reaches 60-90 cm tall
- Needs full sun to partial shade
- Prefers moist streambanks and lakeshores
- Important for fish, frogs, birds, butterflies and muskrat

### **Virginia Creeper (*Parthenocissus quinquefolia*)**

- A woody vine that reaches up to 8 m long
- Shade-tolerant and found in wet, moist or dry soils
- Excellent along erodible shorelines and steep embankments
- The berries provide food for birds and chipmunks

### **Purple-stemmed Aster (*Symphyotrichum puniceum*)**

- A herbaceous perennial that grows to be 40-170 cm in height
- Prefers full sun and grows well in average to moist soils
- Can be found in swamps, open wet fields, thickets and along shorelines
- Nectar and pollen attracts butterflies, bees and other insects

### **Prairie Cordgrass (*Spartina pectinata*)**

- A perennial grass that is 1-2.5 m tall
- Thrives in wet conditions and typically inhabits wet prairies, marshes, shorelines and riverbanks
- The stiff stems and vigorous rhizomes help stabilize soil and impede wave energy, providing effective shoreline cover by preventing erosion
- Thick stands also provide good nesting and shelter for birds and small mammals

### **Tall Manna Grass (*Glyceria grandis*)**

- A perennial grass that reaches a height of 1.5 m, with creeping roots
- Prefers moist to wet soil in open areas
- Dense stands along streams and shorelines stabilize the soil
- Provide excellent food and cover for wildlife

### **For more information:**

**Jason Jobin, BQRAP Environmental Technician**  
Lower Trent Conservation  
613-394-3915 ext 242  
jason.jobin@ltc.on.ca

**Christine Jennings, BQRAP Environmental Technician**  
Quinte Conservation  
613-968-3434 ext 106  
cjennings@quinteconservation.ca

