

Natural Shorelines



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Natural Shorelines

- Importance of natural shorelines
- Buffer size & function
- How to naturalize
 - Planting considerations
 - How to create habitat
- Purchasing plants
 - Plant kits, nurseries & CHA native plant selection tool



The Big Picture

- Your home on the water is an important investment
- To protect your investment, you need to protect the recreational quality of your lake – natural shorelines play a key role
- Declines in water quality affect property values, especially toxic blue green algae
- Climate change is putting increased pressure on lakes



Shorelines Protect Biodiversity

- “RIBBON OF LIFE” – feeding, nesting, shelter, travel corridor
- 70% of land-based animals and 90% of aquatic animals and plants depend on the shoreline
- Fish and wildlife depend on this habitat - logs, branches, leaves, debris, undercuts, vegetation, nooks and crannies



Shorelines Help Moderate Water Temperature

- Helps keep water temperatures cooler in the summer
- Temperature changes can result in a change of species



Shorelines are Cost-effective Erosion Control

- Natural materials bend
- Much easier to maintain, versus manmade structures that break and are much more costly
- Protects shoreline from waves, ice and upland development



Shorelines Help Build Resilience

- Upcoming forest pests and diseases
- Impacts from climate change
- Impacts from invasive species



Shorelines Protect Water Quality

- Slow runoff from roads, driveways and buildings and helps mitigate flooding
- Filters contaminants (bacteria, chemicals) and sediment before entering the lake
- Scientific studies have proven that in order to maintain water quality, 75% of the shoreline must be kept in a natural state for a minimum of 100 feet.



Buffer Size Varies Depending on Function

Function	Recommended Buffer Size
Bank stability	20 – 30 m, depending on wave action, slope & substrate type
Maintenance of aquatic insects	30 metres
Fecal coliforms & E. coli	Minimum 30 metres (MOECC)
Overall nutrient reduction	>30 metres
Sediment removal	Sand – 3m; Silt – 15 m; clay – 122 m *75% removal with a buffer width of 30 to 38 m (varies with slope, soil and water flow)
Wildlife habitat	Fish, aquatic insects, reptiles, amphibians – 30 m; beavers – 30 to 100 m; birds, large & small mammals – 75 to 200 m *depends on land use, frequency of property use & species of animal



What Kind of Naturalization?

- Bedrock/shallow soil
- Shade
- Riparian
- Wild edibles
- Shrubs for shoreline erosion
- Meadow
- Pollinators and wildlife
- Septic
- Showy garden – areas or species of interest
- Erosion protection
- Habitat creation – underwater, shoreline & upland



Things To Consider Before Planting

- Existing or future openings and structures
- Septic system location
- Existing issues – erosion, geese, etc.
- Drainage areas/wet areas
- Areas to hide
- Level of desired maintenance
- Water source/ability to water
- Opportunities to restore areas and minimize disturbance?
- How much to plant and degree of effort



Site Conditions – Key to Plant Selection

- Soil (or lack of) type
- Soil moisture
- Light requirements
- Slope
- Existing plants



Approach

- Stage areas if necessary
- Site maintenance
- Expectations
- Watering and ability to maintain plants until established



Native Shade Groundcovers

- Native groundcovers are effective AND beautiful
- LOTS of choice for native, shade plantings!



Native Plants Recommended for Septic

Common Name	Scientific Name	Plant Type	Height (cm)	Bloom Colour
Wild Columbine	<i>Aquilegia Canadensis</i>	Wildflower	30 to 90	red
Wild Lupine	<i>Lupinus perennis</i>	Wildflower	20 to 60	blue purple
Butterfly Weed	<i>Asclepias tuberosa</i>	Wildflower	30 to 75	orange
Foxglove Beardtongue	<i>Penstemon digitalis</i>	Wildflower	30 to 100	white
Black Eyed Susan	<i>Rudbeckia hirta</i>	Wildflower	30 to 50	yellow
Canada Wild Rye	<i>Elymus canadensis</i>	Grass	90 to 150	greenish brown



Pollinator Plants

- Minimum of 76 native species that regionally support pollinators
- Think support, not attract
- Say no to mosquito spraying programs

Early spring	Early summer	Mid-summer	Late summer/fall
Bunchberry	Wild Lupine	Blue Vervain	Native Asters
Trillium	Blue Violet	Native Milkweeds	Native Goldenrods
Wild columbine	Blue Flag Iris	Dense Blazing Star	Indian Grass
Willows	Nannyberry	Wild Bergamot	
Trees - Beech, Black Spruce	Lowbush Blueberry	Native Roses	
	Red Osier Dogwood	Canada Wild Rye	
		Basswood	



Pollinator Kits at Abbey Gardens!

- Support pollinators from spring to fall
 - Dry to normal soil
 - Part shade to full sun
1. Black-eyed Susan
 2. Blue-stemmed Goldenrod
 3. Wild Lupine
 4. Dense Blazing Star
 5. Foxglove Beardtongue
 6. Heath Aster
 7. New England Aster
 8. Pearly Everlasting
 9. Wild Bergamot
 10. Wild Columbine
 11. Yarrow
 12. Zigzag Goldenrod
 13. Canada Wild Rye
 14. Bush Honeysuckle
 15. Nannyberry
 16. Wild Red Raspberry
 17. Chokecherry
 18. Yellow Birch



What if My Shoreline is Already Natural?

- Do you have multiple layers of vegetation and succession?
- Can you reduce runoff?
- Opportunities for increasing diversity and wildlife habitat
- Reduce “cleaning up” of property
 - Leave the leaves where they fall
 - Clean up the garden in spring, after several 10°C days (pollinators will have emerged and moved on)
 - Leave standing snags
 - Build brush piles instead of taking them away



Fish & Wildlife Habitat

DO

- Overhanging vegetation
- Multiple layers and species of vegetation
- Consider corridors
- Use appropriate lighting
- Add/leave in-water structure – logs, branches, rocks, plants
- Allow sucker growth
- Trim windows

DON'T

- Clean up the property
- Clear trees to create views
- Hardscape the shoreline
- Recommend or use pesticides or fertilizers, including mosquito sprays
- Use lights that zap insects



Plant Sourcing

- Native plant nurseries are the best to deal with – supply, variety, and ethics
- Grow Wild! – Omemee
- Ontario Native Plants
- Native Plants in Claremont
- St. Williams Nursery
- Abbey Gardens – plant kits available



Plant Selection Tool – CHA website

- Online tool to help select plants appropriate for your site conditions

Shoreline Plant Search

Shoreline Vegetation - Expert Recommendations

Please select a plant type *(required)*

Wildflower

Soil Types

- Sand
- Loam
- Clay
- Rocky

Sunlight

- Full Sun
- Part Sun
- Shade

Moisture

- Wet
- Moist
- Normal
- Dry

Location

- Water's Edge
- Upland
- Forest's Edge
- Forest

Other Options

- Flowers
- Fruit
- Pollinators
- Birds
- Butterflies
- Wildlife
- Drought Resistant
- Septic Friendly
- Erosion Control

SEARCH

CLEAR FORM

<https://www.cohpoa.org/shoreline-health/shoreline-plant-search>



Questions?



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