Quinte

CONSERVATION

Protecting the places you cherish

Who We Are

- One of 36 Conservation Authorities in Ontario
- Community based environmental protection agency
- Organized on a watershed basis

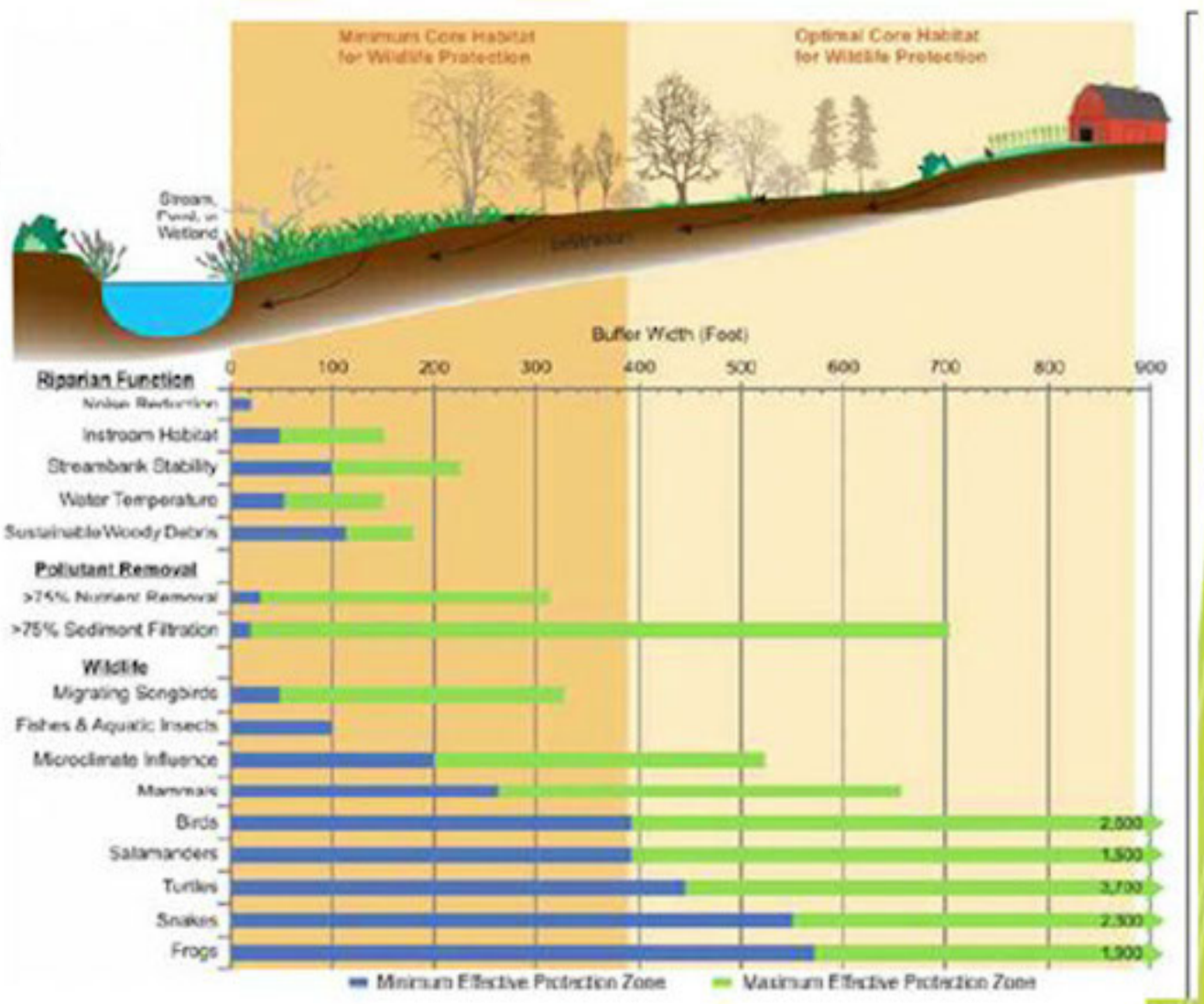
Programs

- Flood Protection
- Floodplain Advice
- Low Water Response
- Environmental Planning
- Water Quality Monitoring
- Depot Lakes Campground
- Groundwater Protection
- Water Control Structures
- Environmental Information
- Storm water Management
- Fish Habitat Protection
- Tree Seeding Orders
- Managed Forests
- Environmental Education
- Conservation Day Camp
- Stream of Dreams
- Climate Change
- McLeod Dam Green Energy Project
- Conservation Lands and Areas
- Drinking Water Source Protection
- Bay of Quinte Remedial Action Plan

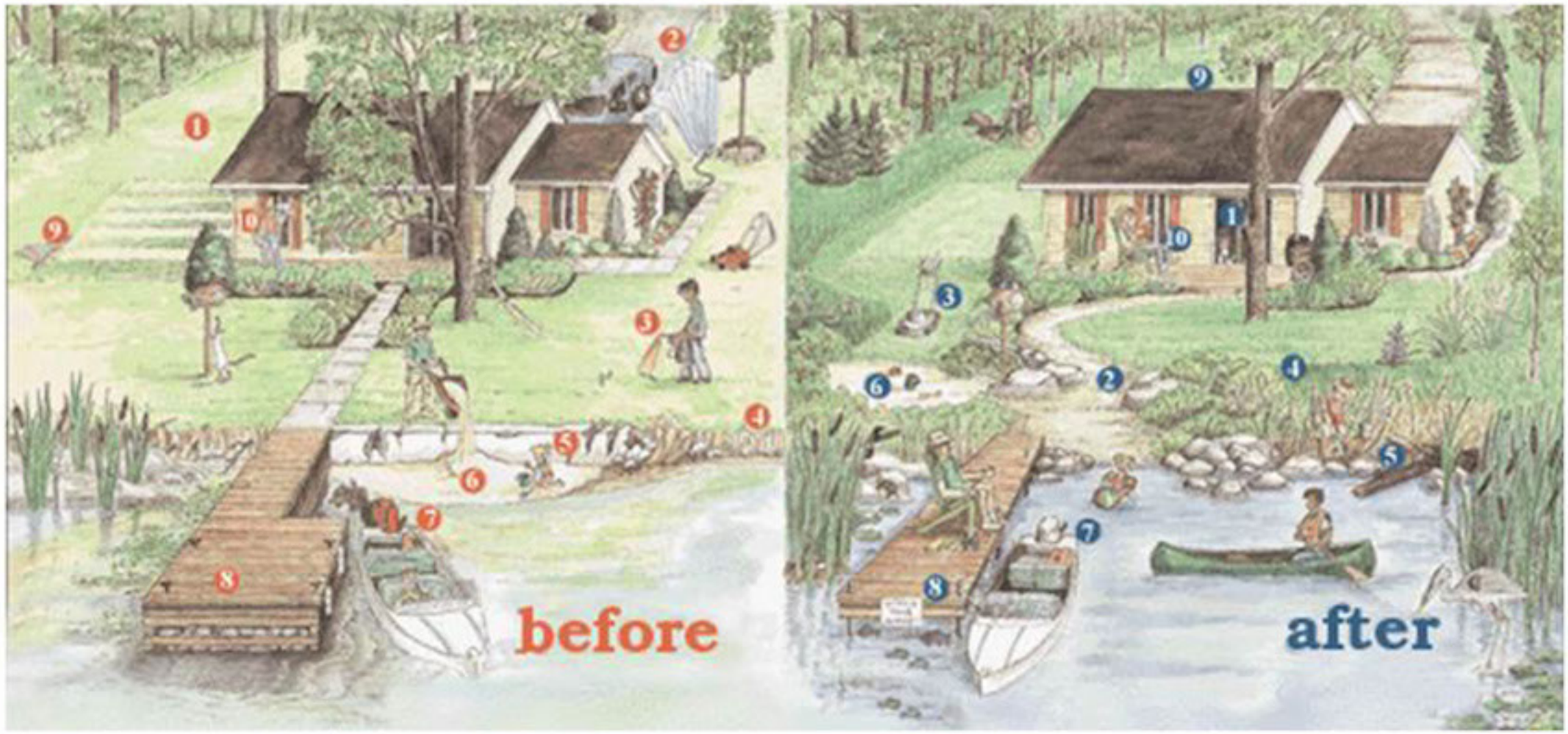
The Importance of Vegetation and Invasive Species Around Lakes

Buffer Zones

- Vegetated zones adjacent to water bodies, such as wetlands, lakes, creeks, etc…
- Water quality
- Habitat
- Shoreline protection



Riparian Areas



Courtesy of Living by the Water

What is a Wetland

- Land that is temporarily or permanently covered with water
- Primarily consist of hydric soils that support aquatic vegetation
- Different types of wetlands including fens, swamps, marshes and bogs
- One of earths most threatened ecosystems

Benefits of Wetlands

- Water purification
- Biodiversity
- Recreation/Tourism
- Flood control
- Commercial fisheries
- Groundwater replenishment
- Shoreline stabilization/Storm protection
- Climate change

Benefits of Aquatic Plants

- Submerged Aquatic Vegetation
  - Fish (shelter, food, shade, lay eggs, build nests, etc…)
  - Clarify water
  - Slow action of waves
  - Make it less likely that algae will take over a lake

Benefits of Aquatic Plants

- Emergent Aquatic Vegetation
  - Transition between water and land
  - Important habitat (mammals, waterfowl, fish etc…)
  - Food for mammals
  - Areas for emerging benthos such as dragonflies

Native Vegetation

- In Northern America, a plant is considered native if it was present before colonization
- Plants that occur naturally
- Balanced ecosystem
- Can prevent invasive plants
- Low maintenance

Invasive Vegetation

- Plants that are not originally from the area
- No predators within the ecosystem
- Reproduce aggressively
- Can affect native species (i.e. competition)
- The area becomes less diverse

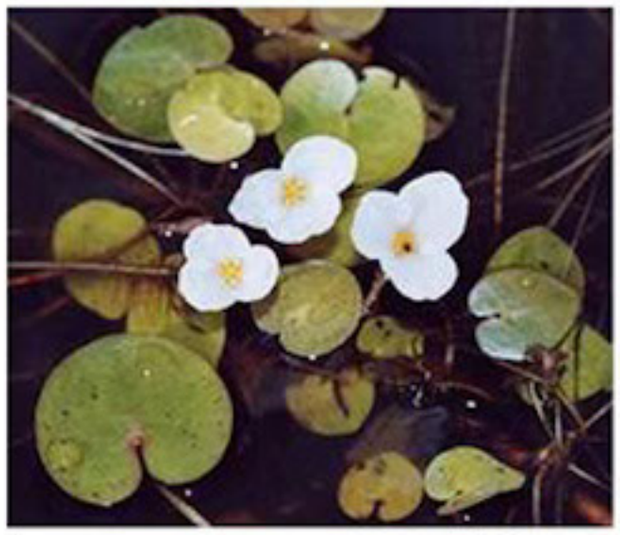
Eurasian Water Milfoil

- Native to Europe, Asia and North Africa
- Forms a dense canopy
- Can create stagnant water
- Can impede recreational activities
- Stands can reduce oxygen levels
- Reproduces with plant fragments
- Hybridizes with native milfoils

Myriophyllum spicatum L.

European Frog-bit

- Native to Europe, parts of Asia and Africa
- Reproduces from stem fragments, seeds and turions (hardened stemmed tips)
- Forms dense floating mats
- Impedes water flow and recreational activities
- Reduce speed when boating around Frog-bit because the wake can displace plants



Curly Leaf Pondweed

- Native to Eurasia
- Present in spring
- Summer die off can lead to an increase in phosphorus, nutrients and undesired algae
- Reproduces from spreading of turions
- Forms dense stands (more of a problem in western Ontario)
- Impedes recreational activities

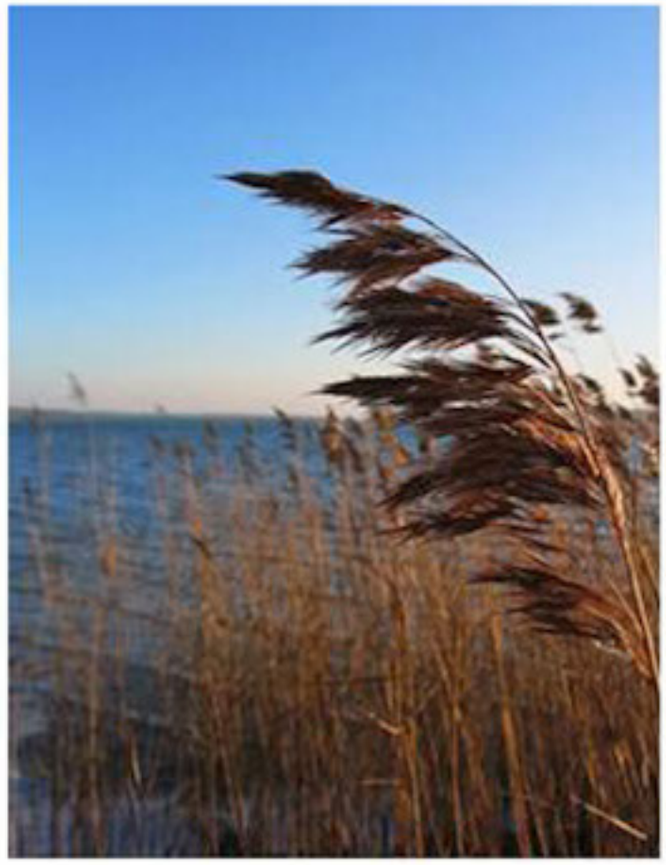
Flowering Rush

- Native to Eurasia
- Reproduces by spreading of seeds, bulbs and fragments
- Forms dense stands
- Difficult to distinguish between native vegetation
- Impedes recreational activities
- Displaces riparian vegetation (i.e. wild rice and cattails)
- Hand removal of plant could lead to further spreading

Photos courtesy of Christian Fischer

Common Reed

- Native to Eurasia
- A.K.A Phragmities
- Reproduces from seeds and rhizomes through transportation
- Rhizomes (underground stem/roots) spread horizontally and several meters per day
- Contributes to loss of habitat, changes in hydrology, economic and social impacts



Control Measures

- **NOTE: Controlling aquatic plants may require permits from organizations such as:**
  - **Ministry of Natural Resources**
  - **Ontario Ministry of the Environment**
  - **Department of Fisheries and Oceans**
  - **Conservation Authorities**
- There are different control measures for each species because some removal methods will aid plant reproduction
- Interfering with the plant community can have consequences on the ecosystem
- Control measures include hand removal, cutting the plant below the surface of the water, biological controls, dredging, raking, cutters and herbicides

How you can help

- Monitoring plant communities yearly is a good way to detect detrimental changes
- Learn to identify invasive species (proper identification can be difficult but it is essential)
- Report to the Invasive Species Hotline 1-800-563-7711
- Do not plant exotic plants in your gardens, aquariums, ponds or near the shoreline
- Avoid transportation via equipment and on yourself (boat, trailer, machinery, clothing, etc…)
- Do not compost plant material (especially common reed)

Any questions?

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Member of

Conservation
ONTARIO
Natural Champions