



# Nottawasaga Bay Water Quality and Shoreline Stewardship

## Keeping our Shoreline Healthy

### Nottawasaga Bay and Water Quality

Nottawasaga Bay lies along the densely populated southern end of Lake Huron's Georgian Bay.

The bay's offshore areas are characterized by deep, cold, nutrient-poor waters. The cold waters are framed by the warm, sandy beaches and dunes of the Town of Wasaga Beach (the world's longest freshwater beach!) and Township of Tiny, and the bedrock, cobble shores, wetlands and offshore shoals found in the Town of Collingwood.

While water quality in Nottawasaga Bay is good with naturally low levels of phosphorus, nitrate and nuisance bacteria, stressors are mounting.

### What is stressing Nottawasaga Bay?

Human influences and introduced invasive species are the primary stressors to the health of the bay.

Intensive urban, agricultural and recreational development is occurring along the shoreline and up in the watersheds that feed into the bay. Shoreline alteration and excessive nutrient inputs can impact the shoreline and nearshore ecosystems.

Introduced invasive species like Phragmites, round gobies, and zebra and quagga mussels are also stressing the bay environment. These mussels and gobies are profoundly changing the bay ecosystem, displacing native species and impacting native food webs. They are key suspects in botulism outbreaks which have resulted in fish and water bird kills in recent years.



*Phragmites australis*



*Round gobies*



*Zebra & Quagga Mussels*



## What is being done?

A combination of government, non-government and community groups, and concerned landowners are working together to tackle the many challenges facing the bay. These include partnership projects supported by Environment and Climate Change Canada.

Together, these groups are, among other activities:

- Monitoring levels of chemicals, bacteria and sediments entering the bay.
- Tracking invasive species populations and their impacts on the environment, and working with local communities to control these species.
- Undertaking stewardship projects aimed at improving water quality and stream/shoreline health.
- Implementing Best Management Practices to lessen the footprint and impact of urban development and agricultural practices.

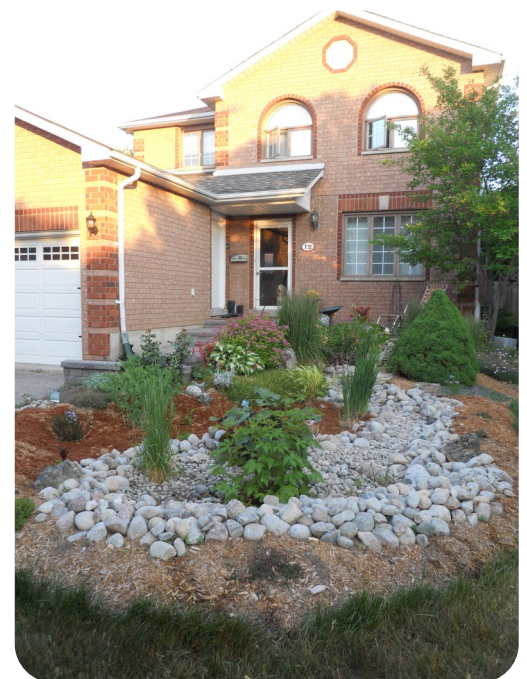


*NVCA staff sample shoreline fish populations in Wasaga Beach Provincial Park.*

## What Can You Do?

Whether you live and/or play along the shore or live upstream in the watershed, we all have a role to play in keeping our water clean and healthy.

- Ensure your septic system is working properly.
- Avoid fertilizing your lawn/garden around water, and before rain storms.
- Do not feed geese, ducks or gulls.
- Clean up after your pets.
- Wash your boat, fishing equipment and beach toys before using them in other lakes.
- Volunteer your efforts to improve the shoreline, such as the Great Canadian Shoreline Clean-up or local events to remove invasive Phragmites.



*Rain gardens are easy to construct and helps put rain back into the ground and out of sewers.*

# Nottawasaga Bay Shoreline & Stewardship

The shoreline is a dynamic ecosystem which is changing with every wave. Two main natural shoreline types are present along the southern shore of Nottawasaga Bay: coastal marshes and natural beaches.

A **coastal marsh** is a transition zones between terrestrial and aquatic ecosystems. Endemic to the Great Lakes (found nowhere else in the world), the marshes are characterized by shallowly sloping limestone shorelines.

Coastal marshes are home to a rich array of vegetation and wildlife including Species at Risk and provincially rare species. They provide suitable spawning, nursery and feeding area for many fish and migratory stopover habitat for waterfowl.

A **natural beach** and its associated dunes are an interconnected system that serves many functions:

- protects the shoreline from erosion;
- provides sand supply for long-term beach preservation;
- provides awesome recreational opportunities for people; and
- provides habitat for wildlife.

Vegetation is critical to dune formation and stabilization. Without this vegetation, sands required for long-term beach stability would blow inland and would be lost to the beach. Without these sand sources, the beaches along Nottawasaga Bay will decline over time.

## What is stressing shoreline habitats?

Human influences are the greatest stressor on shoreline wetlands and beaches. Incompatible development along the shoreline has resulted in the degradation of coastal marshes and armoring (or “hardening”) of shorelines.

Dredging to maintain boat access to the bay directly removes habitat. It also stirs up sediments that, once suspended in water, can move along the shore before settling. Depending on where these sediments settle, they may smother nearby marshes as well as spawning habitat for fish species such as smallmouth bass.

Groynes (constructed rocky points) are abundant along the Collingwood and Tiny shoreline and can have detrimental impacts on water quality, shoreline processes and the biological communities of the shoreline.



*Natural shorelines offer diverse habitat for plants and animals and fun places for the explorer in everyone.*



Human activities that affect the health of beach areas include: raking shoreline vegetation, walking through dune habitat, and driving ATV's and other vehicles on the beach.

Invasive species threaten the biodiversity and health of both the coastal marshes and shoreline dunes. *Phragmites*, a persistent and quick spreading invasive grass, is present along the Nottawasaga Bay shoreline in many areas.



*Shorelines can provide recreation opportunities and, if maintained naturally, can contribute to good water quality.*

## What you can do?

- Enjoy natural shorelines and respect the plants and animals that live there.
- Support balanced approaches to beach management (human and natural use).
- Maintain and enhance natural habitats on your property.
- Learn how to identify and properly manage invasive species on your property.
- Do not litter. Dispose of cigarette butts in the garbage, not on the beach.
- Participate in stewardship activities organized by local beach associations, parks and your local conservation organizations.

## Get Involved

- Friends of Nancy Island and Wasaga Beach Park: [www.wasagabeachpark.com](http://www.wasagabeachpark.com)
- The Tiny Cottager: [www.tinycottager.org](http://www.tinycottager.org)
- Blue Mountain Watershed Trust Foundation: [www.watershedtrust.ca](http://www.watershedtrust.ca)
- Georgian Bay Forever: [www.georgianbayforever.com](http://www.georgianbayforever.com)
- Nottawasaga Valley Conservation Authority: [www.nvca.on.ca](http://www.nvca.on.ca)



**Nottawasaga Valley  
Conservation Authority**

705-424-1479 | [nvca.on.ca](http://nvca.on.ca)

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