LIFE ON THE BAY

A STEWARDSHIP GUIDE FOR EASTERN GEORGIAN BAY AND INLAND LAKES

United Nations Educational, Scientific and Cultural Organization

GEORGIAN BAY BIOSPHERE MNIDOO GAMII

Worksheet #3 - Construction in or Near Water

Use this worksheet to assess opportunities and constraints for planned construction in or near the water.

Why Should You Be Concerned?

- Your shoreline is part of a larger landscape. The “ribbon of life” where the water meets the land provides vital habitat for many wildlife species, including spawning habitat for fish. Any project you undertake will not only affect you and your immediate neighbours, but also impact people and wildlife farther away.

- The water level of Georgian Bay fluctuates greatly over seasons and years. Even in one day, a change in wind direction can cause water levels to fluctuate by 20 cm (8 in). Inland lakes can also be susceptible to considerable swings in water levels depending on the type of water level management (e.g. hydro dam, beaver dam). It is important to keep these facts in mind when planning to build in or near water.

- Under low water conditions, much of your shoreline may actually be a dry lakebed. Almost all lakebed is owned by the Crown including these dry portions. You should confirm ownership with your municipality before starting construction.

- Shorelines and lakebeds along the shore are protected under the Federal Fisheries Act. It is your responsibility to ensure that you do not “harmfully alter, disrupt, or destroy” fish habitat. Offenders can be fined or face criminal charges and be required to restore the shoreline to its previous state at their own expense. Shorelines are also protected by the Public Lands Act which outlines the types of work that require a permit. Permits may be required from your municipality, the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF), and/or Fisheries and Oceans Canada (DFO).

What Can You Do?

1. Make a plan including an inventory of weed beds, gravel and rock areas, natural sand beaches, and old crib and dock ruins. (Helpful hint: you could make a copy of your property map from Chapter 1).

2. Before making any alterations to your shoreline such as building, repairing, or renovating a dock or boathouse:
   - Contact your municipality to determine if you need a building permit.
   - Contact the NDMNRF to determine if you require a work permit (issued under the Public Lands Act).
   - Determine whether your project requires DFO review.
   - Research ways to minimize your impact on aquatic habitat.

3. Protect yourself: keep records, including permit applications, and take photos throughout the construction process. These can be useful if disputes should arise with agencies or neighbours in the future.

4. Be a land and water steward. Keep the shoreline in its natural condition; even small alterations can have negative impacts. Fish and other aquatic life need weed and rock beds. Natural shorelines also reduce the risk of erosion and, as a result, help protect water quality.

5. It is wise to estimate how storm events might affect your docks and boathouses and plan accordingly.

Construction in or Near Water: How Do You Rate?

Topic	Best 4	Good 3	Fair 2	Poor 1	Your Rating
PERMITS & REGULATIONS					
1. Knowledge and understanding of application process	Planning begins the year before work is to begin. Check with local municipality and provincial and federal authorities regarding permit requirements.		No planning involved and an immediate start expected.	**Permit required but not obtained.*	
PREPARING A SITE PLAN					
2. Knowledge of shore and underwater features of the site	Thorough knowledge of all natural features, including history of water levels.	Identification of sensitive natural areas.	General idea of natural features.	No knowledge of natural or sensitive features.	
Knowledge of effect of work on natural features	Construction done in a manner that has the least impact on sensitive and important aquatic features, and accounts for water level fluctuations.	Aware of potential impacts, some precautions taken into consideration. Construction is of primary concern.	Aware of potential impact but construction goes ahead. Few precautions taken.	No knowledge of how construction will affect sensitive and important aquatic features and no attempt is made to minimize impacts.	
3. Plan for access to water	Minimal path clearing and/or vegetation removal planned and stairs or bridges used in steep areas. Sensitive natural features avoided.	Minimal path clearing with bridges over sensitive natural features.	Multiple pathways planned with considerable under brushing and vegetation removal. No avoidance of natural features.	No fixed path and machines and people move around damaging large patches of natural areas.	

**These conditions may violate provincial legislation or municipal bylaws.*

Topic	Best 4	Good 3	Fair 2	Poor 1	Your Rating
PREPARING A SITE PLAN					
4. Plan for effects of storms	Thorough knowledge of direction and expected strength of prevailing winds and seasonal storms. Dock and other structures planned and constructed accordingly.	Good knowledge of wind strength and direction.	Some knowledge of prevailing winds.	No knowledge of winds or storm directions/strength. Dock planned without consideration of winds.	
5. Avoiding important habitats	Docks, boathouses, and other structures are located well away from wetland features and away from large underwater cobble or boulder areas.	Docks, boathouses, and other structures are located outside of wetland features and away from large underwater cobble or boulder areas but with little buffering provided.	Docks are located in wetland features and over underwater cobble or boulder areas, but boathouses are located outside these areas.	No concern for underwater habitat in the placement of docks and boathouses.	
DESIGN AND CONSTRUCTION					
6. Assessing and building what you need	The size of docks and boathouses are minimized to reduce environmental and visual impact.			Large extensive docks and boathouse constructed; docks used as large recreational areas.	
7. Using environmentally friendly designs	Docks are constructed with a minimal footprint size and some light is able to filter through to the water below.	Docks are constructed with a small footprint size or floating docks with anchors are used. Minimal light filters through.		Docks are constructed with a large footprint on the bottom and wide decks so that no light filtration can occur under docks.	

Topic	Best 4	Good 3	Fair 2	Poor 1	Your Rating
DESIGN AND CONSTRUCTION					
8. **Materials used**	Environmentally friendly materials (e.g. FSC wood) are used for all aspects of construction that will not leach chemicals into the environment. Styrofoam blocks are not used to float the dock.	Those components of the dock/boathouse which are exposed to water are non-polluting and non-toxic.		Docks are constructed with materials that are potentially toxic to the environment.	

Helpful Hints

Permits and Regulations

- Requirements around permitting can change over time and from region to region. Always check with municipal, provincial, and federal authorities to ensure your proposed work is in compliance with all regulations and you have any necessary permits.

Preparing a Site Plan

- A changing climate will result in more frequent and intense weather events in the region. Natural shorelines are not only more visually appealing than altered shorelines, but they are also better able to absorb wave action resulting from more intense wind.

Design and Construction

- Eastern white cedar is an excellent choice of wood for dock construction.

- Wood that is Forest Stewardship Council (FSC) certified is managed, harvested, and milled in an environmentally friendly manner. Westwind Forest Stewardship can be contacted for more information about this excellent choice for local wood products.

- Polystyrene foam breaks down over time as it is exposed to sun, wind, waves, ice, and animals. Pieces of polystyrene foam persist in the environment and pose a risk to fish and wildlife. With the passing of Bill 228: Keeping Polystyrene Out of Ontario's Lakes and Rivers Act, any polystyrene foam used in the construction of docks and rafts must be fully encapsulated.

Action Plan Worksheet #3

Construction in or Near Water

Any ratings of 1 or 2 indicate areas where your property management needs to be changed to reduce the potential for environmental damage and water contamination. Use the information from the worksheet and the resource list to help analyze your potential problems and decide what you can do to solve or control them. Remember, this is YOUR action plan. It must suit you and your property.

Topic Number	Workshop Theme	My Rating	Short-term Action	Long-term Action
3	*Plan for access to water*	*2*	*Identify where paths can be consolidated or removed especially those near sensitive natural features, e.g. stream edge.*	*Reduce the number of paths and replant previously cleared areas with native plants.*

Resource List

Government

- Crown Land Work Permit
  www.ontario.ca/page/crown-land-work-permits
- Review of Projects Near Water
  www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-001-eng.html
- Public Lands Act
  www.ontario.ca/laws/statute/90p43
- Fish and Fish Habitat Protection Policy Statement
  https://waves-vagues.dfo-mpo.gc.ca/Library/40971193.pdf
- Standards and Codes of Practice
  www.dfo-mpo.gc.ca/pnw-ppe/practice-practique-eng.html

Conservation & Stewardship

- Building in the Biosphere Habitat Screening Tool
  www.gbbr.ca/building-in-the-biosphere-habitat-screening-tool
- Problems with Polystyrene Foam – Georgian Bay Forever
  www.georgianbayforever.org/Polystyrene/GBFReportPSFoam
- Muskoka Water Web
  www.muskokawaterweb.ca/index.php
- Watersheds Canada
  www.watersheds.ca
- Westwind Forest Stewardship
  www.westwindforest.ca

Thank You
Miigwech

The Georgian Bay Mnidoo Gamii Biosphere (GBB) is a community-based organization that builds capacity for regional sustainability in eastern Georgian Bay.

The GBB is a non-profit registered Canadian charity governed by a Board of Directors.

For more information, please visit:

gbbr.ca

info@gbbr.ca
705-774-0978