

# Fish Habitat & BUILDING A BEACH

FACT  
SHEET

C-2

**B**uilding a beach in the nearshore area of your lake or river property may be harmful to fish and fish habitat. This fact sheet provides information about whom you should contact for government agency approvals, and some best practices for preventing or minimizing any damage during the construction of your project.

Shoreline areas provide habitat for a variety of aquatic organisms including fish. The nearshore area is where many fish species lay their eggs, feed and seek protection from predators. Changes or disruptions to these areas can threaten their survival. If you own or lease waterfront property, you can help protect the fish populations in your lake or river by protecting fish habitat along your shoreline.

## Be aware of the *Fisheries Act* and other legislation

The federal *Fisheries Act* provides for the protection of fish habitat. Under this Act, no one may carry out any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat (HADD), unless authorized by the Minister of Fisheries and Oceans Canada. The Act also states that no one is permitted to deposit a deleterious (harmful) substance into water containing fish. Violations to the *Fisheries Act* can result in substantial fines, and/or the risk of imprisonment. If found guilty, then the violator may also be required to cover the costs of restoring the habitat at the site and/or be required to fulfill other court ordered remedies. Other legislation that may also be relevant to building a beach is outlined in the introductory Fact Sheet: *Working Around Water? What you should know about Fish Habitat.*

## Adding sand to the shoreline areas

Experience has shown that in areas where a natural beach does not exist, beach-building efforts are usually unsuccessful. This is particularly true in areas with high currents and waves. Over time, materials used to create beaches in these areas are transported away and deposited elsewhere, sometimes a great distance from the original beach site. Beach sand may be deposited on neighbouring down stream properties, in deeper water or as a sandbar. Before submitting a beach creation or beach enlargement proposal, ask yourself the following questions:



- ❖ Is the sand likely to be transported by water currents or wind/wave/ice action?
- ❖ Will the placement of the sand harmfully alter, disrupt or destroy existing fish habitat? If you answered “yes” or “don’t know” to either of these questions, your proposal will not likely be approved.

Instead of applying to create a sand beach below the average annual high-water mark, consider other alternatives such as those mentioned in the best practices listed in this fact sheet.

## Contacts and approvals

If your project involves building a beach, the table on the next page will help you to determine which agency you should contact. In some instances, you may have to contact more than

one agency. Keep in mind that approval from one government agency does not guarantee that you will be able to obtain approval from another agency. Remember to obtain all approvals before starting work. Early consultation can save you from designing a beach that will not be approved.

## Information you will need to submit

When seeking approvals or permits you will need to submit the following information:

- ❖ Your name, address, telephone number, and if available, a fax number and e-mail address
- ❖ Waterbody name and location including the lot and concession numbers, county, township, municipality, and if known, latitude and longitude

- ❖ Proof of ownership for each of the properties where the work will be done and the most recent legal survey(s)
  - ❖ Detailed description of the work site including a signed and dated map or sketch with dimensions indicating the location and distances to the average annual high-water mark of existing buildings, shoreline structures and property lines
  - ❖ Plan view (top down) sketch or drawing of the total area to be covered with sand/gravel showing existing shoreline length (m) and the distances to the average annual high-water mark. If you are doing this work in conjunction with your neighbour(s), your sketch should show the combined works
  - ❖ Cross-sectional (side view) drawing (with dimensions) showing the existing depths and proposed depths, current water level and distances to the average annual high-water mark
  - ❖ Description of the type of substrate being covered indicating approximate percentages of sand, silt, clay, rock, gravel and aquatic vegetation, etc.
  - ❖ Description of any aquatic plants in the proposed work area to be removed or covered. Include a description of whether the aquatic plants are free-floating, submerged (rooted in the bottom but not extending out of the water) or emergent (rooted in the bottom and extending out of the water). The density of the aquatic plants should be given. This can be the percentage of the bottom that is covered
  - ❖ List of heavy equipment to be used
  - ❖ Proposed start and completion dates of the project
  - ❖ Information you have about fish use of the site
  - ❖ Photographs of the work site and surrounding shoreline during ice-free conditions
  - ❖ Other agencies contacted.
- A site visit by agency staff may be necessary before your proposal can be approved.

## Best practices

The following practices are intended to prevent or minimize any potential impacts to fish or fish habitat that may result from your project:

**Keep your beach above the average annual high-water mark:** Beaches created above the average annual high-water mark require fewer or no approvals. A berm or retaining wall may be necessary to prevent the sand from spreading, being washed or entering into the water. Any berm or retaining wall must also be located above the average annual high-water mark.

**Consider pea gravel instead of sand:** Beaches created below the average annual high-water mark, that are composed of pea-sized gravel or larger materials, may be approved where sand beaches in the same location may not.

**Timing is critical:** In-water activities should not occur during local fish spawning and nursery periods since they could disturb spawning behaviour, smother eggs and kill young fish. If you are planning any in-water work, contact your local provincial regulatory authority(ies) for details on the timing of your project.

**Maintain or preserve shoreline vegetation:** Shoreline vegetation provides overhead cover for fish, shade to minimize warming of the water and a source of food for fish (e.g. insects fall off the vegetation into the water). Nearshore vegetation also provides shoreline stabilization and benefits to wildlife. The removal of some vegetation adjacent to the waterbody may be necessary to allow equipment access. After completing the project, all areas should be stabilized to prevent erosion and be re-vegetated as soon as possible. Building a small walkway from your cottage to the beach or having a small regularly used path helps preserve shoreline vegetation.

**Avoid areas with aquatic plants:** Aquatic plants play an important role in the ecology of shoreline

areas. Do not add sand to areas with aquatic vegetation. You may need additional approval to remove aquatic vegetation. For more information, see Fact Sheet I-2: *Working Around Water? Fish Habitat & Controlling Aquatic Plants*.

**Avoid spawning and nursery areas:** If you suspect your property is adjacent to a spawning or nursery site for fish, you should not add any sand or gravel. Many valuable fish species often have only one spawning/nursery site in a waterbody. Any in-water activity near these sites could affect fish and fish habitat and result in fewer fish in the entire waterbody.

**Protect water quality:** A sediment or silt screen should be installed around the entire work area prior to starting your project. After the work is completed and the sediment has settled on the lake bottom, the screen should be carefully removed. Only work in the water on calm days. This will help prevent the suspension of fine sediment particles into the water column and will ensure the silt screen is not disturbed by wave action. Sediment or silt screens should be inspected daily and maintained to prevent the spread of suspended sediments to adjacent water.

## Working together to protect fish habitat

Help maintain the quality and quantity of fish habitat in our lakes and streams. For more advice on how to construct an environmentally friendly beach, contact your local agency staff directly.

## Contact information

[www.dfo-mpo.gc.ca/canwaters-eauxcan](http://www.dfo-mpo.gc.ca/canwaters-eauxcan)

Canada

Cette publication est également disponible en français.

## Contact information – Ontario

### If the beach . . .

- is created with sand below the average annual high-water mark
- is in the Rideau Canal or Trent-Severn Waterway
- is in a federally owned small craft harbour
- is above the average annual high-water mark and within a flood plain area
- is above the average annual high-water mark, and entirely on your property

### Your first contact should be...

- Your local Conservation Authority (CA). Where there is no designated CA contact your Ontario Ministry of Natural Resources office
- Parks Canada Agency
- Fisheries and Oceans Canada - Small Craft Harbours
- Your local CA
- Approvals may be required from your local CA if the structure is within the flood plain or fill regulated area

Working together to protect and conserve Ontario's aquatic resources



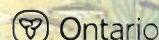
Fisheries and Oceans Canada / Pêches et Océans Canada

[www.dfo-mpo.gc.ca/canwaters-eauxcan](http://www.dfo-mpo.gc.ca/canwaters-eauxcan)



Parks Canada / Parcs Canada

[www.pc.gc.ca](http://www.pc.gc.ca)



[www.mnr.gov.on.ca](http://www.mnr.gov.on.ca)



[www.conservation-ontario.on.ca](http://www.conservation-ontario.on.ca)