

# Protecting Eelgrass

## The benefits of eelgrass

Eelgrass (*Zostera marina* L.) provides many benefits.

- Eelgrass beds assist with coastal protection by providing a physical baffle (leaves) and reducing erosion (roots & rhizomes).
- The beds support a high biodiversity of species. It has been estimated that **over 80% of all commercial fish and shellfish species** depend on eelgrass habitat for at least part of their lifecycle.
- Eelgrass contributes to marine food webs, and is carried by tides and currents throughout the ocean.
- Seagrasses like eelgrass play a critical role in global climate and ocean cycles.



Photo credit: Ramona de Graaf

### An eelgrass bed

Recent reports by the United Nations Environmental Protection Department demonstrate the value and urgency of seagrass conservation: *“We are becoming aware of the role that seagrass plays in the climatic and oceanic carbon cycles and in coastal protection. The true economic value is difficult to measure, but work suggests it is immense. The seagrass beds have been overlooked by conservationists and coastal development planners throughout their range. Biosphere restoration must include seagrass conservation & restoration.”*

Eelgrass is protected by law, under the Federal Fisheries Act, due to its high fisheries value (primary production, substrate for food organisms, spawning substrate and cover).

Common causes of eelgrass loss include:

- shading by overwater structures such as docks and log booms
- degraded water quality
- shoreline hardening
- dredging
- intense trampling at low tide (kayak paths)
- intensive recreational boat anchoring
- shellfish harvesting

This factsheet draws extensively on information provided by SeaChange Marine Conservation Society. We acknowledge their support with thanks.

## Shoreline Resident Best Practices to protect Eelgrass Beds

- **Minimize the area of shoreline disturbed by construction activities;** upland erosion and construction activities can increase sedimentation flow down freshwater streams, which can smother eelgrass plants and destroy the homes and feeding grounds of migratory birds, salmon and shellfish.
- **Protect trees, shrubs and grasses near the shoreline.** Physical alteration of the shoreline to protect or support coastal properties can increase wave energy and alter substrate type creating nearshore areas less able to support eelgrass beds.
- **Leave the site natural** to prevent interruption of ocean currents and reduce the potential for beach erosion.

## Boaters and kayakers

- Avoid dragging kayaks through eelgrass beds, and avoid trampling by numbers of people confined to a single path
- Take care when fuelling up boats; follow “green boating” practices

### WHAT THE LAW REQUIRES

If you are planning a project that is likely to alter or damage fish habitat, such as eelgrass beds, you are subject to certain legal obligations under the federal Fisheries Act. Section 35 of the Act states that “no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat.”

In some situations it may be impossible to protect fish habitat by changes in project design or by other measures. In such cases, you should request an Authorization under Subsection 35 (2) of the Fisheries Act. If you proceed without Authorization and harm fish habitat, you will be liable to prosecution under the Fisheries Act.

Subsection 35 (1) qualifies this prohibition with an explanation that the federal Minister of Fisheries and Oceans may authorize exceptions. It states that “no person contravenes Subsection 35 (1) by causing the alteration, disruption or destruction of fish habitat by any means or under any conditions authorized by the Minister or under regulations made by the Governor in Council under this Act”.

### STEPS IN THE PROCESS FOR AUTHORIZATION

Authorizations to harmfully alter, disrupt or destroy fish habitat are considered the instrument of last resort. They are issued only when there

- **Protect a wide shoreline buffer of vegetation** to filter pollutants, such as fertilizers and surface water flowing from pavements. Buffers also protect soil from eroding and mitigate the effects of flooding, providing habitat for fish and other wildlife. Herbicides and pesticides used excessively on lawns and garden plants can kill or damage eelgrass beds and the animals that live in them
- **Consider sharing a dock** to reduce their number and impacts on the nearshore, or use a mooring float to tie your boat to. Consider alternative construction practices for docks that allow sunlight to penetrate eelgrass meadows. For more information on dock construction and shoreline structures, see Shoreline Structures Environmental Design: A Guide for Structures along Estuaries and Large Rivers: [www.stewardshipcentre.bc.ca](http://www.stewardshipcentre.bc.ca).

## Resources and Publications

Coastal Shore Stewardship Guide - A Guide for Planners, Builder and Developers on Canada's Pacific Coast  
Shoreline Structures Environmental Design  
Both available through: [www.stewardshipcentre.bc.ca](http://www.stewardshipcentre.bc.ca)

On the Living Edge – Your Handbook for Waterfront Living  
Available through: [www.livingbywater.ca](http://www.livingbywater.ca)

Fisheries and Oceans :[www-heb.pac.dfo-mpo.gc.ca/default\\_e.htm](http://www-heb.pac.dfo-mpo.gc.ca/default_e.htm)

SeaChange Marine Conservation Society and  
Seagrass Conservation Working Group  
Contact through: [seachange@shaw.ca](mailto:seachange@shaw.ca)

is no other recourse. Authorizations issued by DFO require the project result in “no net loss of habitat productive capacity”. This means that a habitat loss in one area must be balanced by a habitat gain in another area. Losses would be balanced according to the project and the habitat. An Authorization will not normally be issued unless the person or company proposing the project is able to “compensate” for lost habitat – i.e., replace it. This option will be allowed only as a last resort.

There are also cases in which habitat is so critical or sensitive that habitat compensation is not an option. In these cases, Authorizations will not be granted. (footnote: Fish Habitat, Conservation and Protection: What the Law Requires, Fisheries and Oceans Canada, Communications Directorate, Ottawa, Ontario, K1A 0E6)

The first step is to get in contact with the government agencies responsible for fish habitat protection; the Department of Fisheries and Oceans and the Ministry of Water, Land and Air Protection, which administers the Wildlife Act and the Fish Protection Act.

The Wildlife Act regulates the management and protection of wildlife on land and sea. The Fish Protection Act provides legislation for the regulation and management of anything affecting shellfish, resident finfish and marine plants. It authorizes water managers to consider impacts on fish and fish habitat before approving water licenses

