

PRINCE EDWARD ISLAND

# Watercourse, Wetland and Buffer Zone Activity Guidelines

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## Acknowledgements

The revision of these Watercourse and Wetland Alteration Guidelines (now known as Watercourse, Wetland and Buffer Zone Activity Guidelines) for Prince Edward Island has been carried out by the Prince Edward Island Department of Communities, Land and Environment and Fisheries and Oceans Canada. Appropriate sections of this document have also been reviewed by the Prince Edward Island Department of Agriculture and Fisheries.

## DISCLAIMER

The following limitations are placed on the use of these guidelines:

1. The guidelines are not to be interpreted as a method of design or a design code.
2. Following these guidelines does not exempt a person from liability for any environmental or property damage resulting from carrying out any watercourse, wetland or buffer zone activity, or from the requirement to obtain a Watercourse, Wetland and Buffer Zone Activity Permit as stipulated in the Environmental Protection Act of Prince Edward Island.
3. Following these guidelines and the permit does not exempt a person for any liability for personal damage resulting from the permitted work. The applicant/permit holder must take the necessary precautions to ensure public safety.
4. Following these guidelines places no liability for the design, planning or construction of any watercourse, wetland and/or buffer zone activity on the *Department of Communities, Land and Environment*, its Minister or designates.

NOTE: These guidelines are not regulations. They are general recommendations which may not be applicable to every situation. Specific conditions pertaining to individual Watercourse, Wetland and Buffer Zone Activity Permits will vary with each project. In some cases, supplemental mitigation measures are necessary to resolve site specific problems.

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**SECTION 1: INTRODUCTION**

Watercourse, wetland or buffer zone activities often affect our water resources. Changes made to, or near, a watercourse or wetland may result in damage to the environment, water quality, infrastructure and property. These activities, if not carried out properly, may place our fish and wildlife resources at risk, and could diminish the quality of our water.

It is the intent of these guidelines to provide adequate information for the planning and designing of watercourse, wetland or buffer zone activities, with the belief that it is much less expensive and more effective to prevent or minimize the impacts of an activity at the design stage, rather than trying to control or mitigate the harmful effects of a poorly planned watercourse, wetland or buffer zone activity.

The guidelines contain explanatory information which is intended to provide guiding principles for planning a watercourse, wetland or buffer zone activity or reviewing a proposed activity. These guidelines should not be considered as a code or engineering standard for the design or construction of any type of watercourse, wetland or buffer zone activity. They were designed with the goal of promoting/ensuring environmentally acceptable activities.

Every permit application is carefully evaluated to ensure that the potential effects of a watercourse, wetland or buffer zone activity are adequately considered. Applicants are encouraged to consider the environmental implications of their projects at the planning and design stage.

In order to meet constantly changing technologies, the Prince Edward Island Watercourse, Wetland and Buffer Zone Activity Guidelines were designed to be a living document that can be easily accessed and revised.

The document is then laid out in easy to find sections that detail information thought to be relevant for applicants to plan and obtain the necessary activity permits for environmentally sustainable activities in or adjacent to a watercourse or wetland.

**Section 1** outlines the purpose and scope of the guidelines, layout of the document, permitting process, as well as the revision procedure and control record.

**Section 2** outlines the mandate of the guidelines, as well as concerns, mitigating measures, and appropriate methods/equipment that should be considered while planning a project requiring a watercourse, wetland or buffer zone activity.

**Section 3** pertains to guidelines for specific activity types. A **purpose** and **definition** statement is provided to outline the intended outcome of the proposed work and define the activity covered. The **environmental protection objectives** section summarizes the environmental concerns being addressed by these guidelines. **Planning considerations** are meant to provide applicants with the guidelines necessary for the design and execution of each category of activity.

Each activity will have different **application requirements**. These documents are an important tool for the Watercourse, Wetland and Buffer Zone Activity Permit review process and should accompany the original application when it is submitted. **Failure to submit required documents could result in the return of the application without it being processed.**

As noted in the **government purposes** box at the end of each section, every activity type will require either regulatory or regulatory and advisory review. An application that requires regulatory review is reviewed solely by the *Prince Edward Island Department of Communities Land and Environment*. Those which are reviewed by both the regulatory and advisory agencies, will be reviewed through inter-departmental consultation between the *Prince Edward Island Department of Communities Land and Environment*, the *Prince Edward Island Department of Agriculture and Fisheries*, and *Fisheries and Oceans Canada*. In many cases, advisory agencies are invited to comment on applications and permits which are categorized as regulatory only. Also, representatives from municipalities and other government departments or agencies are often involved in the review process.

**Section 4** provides a glossary with definitions of terminology used in the document.

The Prince Edward Island Watercourse, Wetland and Buffer Zone Activity Guidelines also includes an appendix section that provides an overview of the applicable legislation, regulations and policies important to the process, lists contact information for applicants requiring additional information and details the behavioral patterns of some of the Island's notable wildlife and aquatic species.



Watercourse, wetland and buffer zone activity permits are issued with strictly enforced conditions in order to control activities that fall under the definition of watercourse, wetland and buffer zone activities in an effort to preserve and protect Prince Edward Island watercourses, wetlands and buffer zones.

### **Fee Schedule**

Effective June 1, 2012 there is a fee associated with obtaining a Watercourse, Wetland and Buffer Zone Activity Permit. Applicants should refer to the fee schedule included in the Watercourse, Wetland and Buffer Zone Activity Permit Application for a list of permitted activities and the fee associated with each activity. The fee for a water withdrawal for irrigation purposes permit remains at \$300 per permit. Fees are payable upon receipt of application and payable to the *Minister of Finance, Energy and Municipal Affairs*.

### **How to Apply for a Watercourse, Wetland and Buffer Zone Activity Permit**

Application forms for Watercourse, Wetland and Buffer Zone Activity Permits can be obtained from:

Watercourse, Wetland and Buffer Zone Activity Program  
*PEI Department of Communities, Land and Environment*  
PO Box 2000, 11 Kent Street  
Charlottetown, PE C1A 7N8

Direct inquiries to: Watercourse, Wetland and Buffer Zone Activity Program Supervisor  
Telephone: 368-5052  
Fax: 368-5830

Application forms can also be downloaded on-line from [www.princeedwardisland.ca](http://www.princeedwardisland.ca) or attained from one of the *Access PEI* offices in Alberton, Charlottetown, Montague, O'Leary, Souris, Summerside, Tignish or Wellington.

The completed application form, the required documents (as listed in the specific alteration activity sections of this guideline) and the application fee (if applicable) should be submitted to the Watercourse, Wetland and Buffer Zone Activity Supervisor at least three weeks in advance of the anticipated project start date to ensure sufficient time for review of the application.

### **If You Do Not Receive a Permit**

If the proposed works are considered to have a negative impact on the best interest of the public, the water resource, or the aquatic/wildlife habitat, a letter will be issued from the *Prince Edward Island Department of Communities, Land and Environment*, explaining why the proposal was not approved.

### **Using a Licensed Contractor**

The Contractor Licensing Program allows licensed contractors (contractors who have successfully completed a training program with the Department of Communities, Land and Environment) to perform the following activities without requiring a specific permit or direct supervision from the Department: shoreline stabilization, landscaping in a buffer zone, operation of machinery on a beach or shoreline, minor bridge repairs, and wharf construction and repairs on a Federally owned property approved by a Federal department. Landowners who utilize a Licensed Contractor for carrying out any of the eligible activities listed above will not have to contact the Department and wait for a Watercourse, Wetland and Buffer Zone Activity Permit

application to be processed. However, the Licensed Contractor must register the project with the Department and wait for a faxed acknowledgement of project registration from the Department. This process generally takes less than 24 hours. For additional information on the Contractor Licensing Program and eligible activities please contact the Department of Communities, Land and Environment. A list of Licensed Contractors is available online at [www.princeedwardisland.ca](http://www.princeedwardisland.ca).

The watercourse, wetland and buffer zone activity guidelines contained in this document are based on the most recent habitat protection techniques and principles. In particular, the guidelines have drawn extensively upon the Environmental Protection Act (revised 2009) of Prince Edward Island, the 1995 and 2006 Prince Edward Island Watercourse and Wetland Alteration Guidelines, similar guidelines prepared/revised by the province of New Brunswick, and national operational statements developed by *Fisheries and Oceans Canada*.

The information provided within the Prince Edward Island Watercourse, Wetland and Buffer Zone Activity Guidelines has been prepared on an activity or project-type basis. Review and revision of these guidelines will be required from time to time to reflect any changes in:

- activity practices,
- knowledge about potential impacts of the activity, or
- regulatory requirements.

As appropriate, amendments will be made to individual sections of the Prince Edward Island Watercourse, Wetland and Buffer Zone Activity Guidelines. Upon amendment of the revisions, users should:

- read the text of the revised section(s);
- check to ensure that all pages of the revision have been obtained or downloaded;
- remove and destroy the earlier version of the amended pages;
- insert the revised pages in the proper place in the Guidelines document;
- check the Table of Contents and Revision schedule to ensure that the Guidelines are complete and current;
- enter the revision number and the date entered on the Revision Control Record; and
- take action to incorporate the revision into the activity's planning and construction phase.

**Revision Control Record**

The Revision Control Record is to be used to keep track of any revisions made to each section of the Prince Edward Island Watercourse, Wetland and Buffer Zone Activity Guidelines.

SECTION REVISIED	REVISION DATE	SECTION REVISIED	REVISION DATE
Entire Guidelines	August, 2016		

**SECTION 2: GENERAL PLANNING CONSIDERATIONS AND GUIDELINES**

It is more economical and effective to prevent or minimize the impacts of an activity at the design stage, rather than trying to control or mitigate the harmful effects of a poorly planned watercourse, wetland or buffer zone activity. Public and private funds are spent each year to repair improperly installed structures, restore aquatic habitat or rehabilitate watercourses and wetlands severely impacted by sedimentation or erosion. Taking the time to plan the activity in advance will minimize the disturbance to the watercourse, wetland or buffer zone and improve the viability of the project.

When planning watercourse, wetland or buffer zone activities applicants should carefully consider:

1. The protection of aquatic habitat and the provision of fish passage (Section 2.2);
2. The appropriate methods and equipment required to successfully complete the project (Section 2.3);
3. The provision of buffer zones as required under the Environmental Protection Act, Watercourse and Wetland Protection Regulations (Section 2.4) ; and
4. Potential environmental impacts (e.g., flooding, sedimentation, destruction of existing habitat) associated with the proposed project (Section 2.5).

### **What are we protecting?**

The aims of the Watercourse, Wetland and Buffer Zone Activity Program are to preserve Prince Edward Island's watercourses, wetlands and buffer zones, protect aquatic habitat, with mandates to prevent sedimentation and property damage, and ensure public safety. Conserving and protecting our watercourses, wetlands and buffer zones means:

- maintaining and enhancing aquatic and wildlife habitat,
- maintaining or improving water quality,

- maintaining stable banks and buffer zone vegetation, and
- maintaining or providing fish passage.

### **What is a watercourse?**

As defined within the Environmental Protection Act of Prince Edward Island, Watercourse and Wetland Protection Regulations, a watercourse is "an area which has a sediment bed and may or may not contain water, and without limiting the generality of the foregoing, includes the full length and width of the sediment bed, bank and shore of any stream, spring, creek, brook, river, lake, pond, bay, estuary or coastal body, any water therein, and any part thereof, up to and including the watercourse boundary."

A watercourse does not include a grassed waterway or a tap drain unless a sediment bed has been formed in it by flowing water. Generally, this would also require an absence of terrestrial vegetation in the sediment bed.

### **What is a wetland?**

A wetland is "an area which contains hydric soil, aquatic or water-tolerant vegetation, and may or may not contain water, and includes any water therein and everything up to and including the wetland boundary".

Hydric soil is soil is soil that has been sufficiently saturated or flooded (during the growing season) to develop anerobic (oxygen deficient) conditions in the upper layer.

Water-tolerant vegetation refers to plants that are adapted to growing in saturated or flooded conditions.

Wetland types recognized in the PEI Wetland Inventory include: open water, deep marsh, shallow marsh, seasonally flooded flat, meadow, shrub swamp, wooded swamp, bog, salt marsh, and brackish marsh.

**What is a buffer zone?**

A buffer zone is the 15 metre area surrounding all watercourses and wetlands on PEI.

**What is an activity?**

A watercourse, wetland or buffer zone activity is any temporary or permanent change made at or to a watercourse, wetland or buffer zone or to water flow in a watercourse, wetland or buffer zone.

In accordance with the Environmental Protection Act of Prince Edward Island, Watercourse and Wetland Protection Regulations, “No person shall, without a license or Watercourse or Wetland Activity Permit, and other than in accordance with the terms and conditions thereof, alter a watercourse or a wetland, or any part thereof, or water flow therein, in any manner, or engage in any of the following activities in or on a watercourse or wetland:

1. drain, pump, dredge, excavate or remove soil, water, mud, sand, gravel, stones, rubbish, rocks, aggregate or material or objects of any kind;
2. dump or infill, or deposit soil, water, mud, sand, stones, gravel, rubbish, litter, rocks, aggregate or material or objects of any kind;
3. construct or place, repair or replace, demolish or remove, buildings or structures or obstructions of any kind, including, but not limited to bridges, culverts, breakwaters, dams, wharves, docks, slipways, decks or flood or erosion protection works;
4. operate heavy equipment or a motor vehicle on the sediment bed, beach or bank of a watercourse, with the exception of the operation of a motor vehicle on a beach for the conduct of activities related to the legal harvesting of a fishery resource or the legal removal of beach material, and the exception of the launching of a boat;

5. operate heavy equipment or a motor vehicle on a wetland, except a boat on the water of a wetland;
6. disturb, remove, alter, disrupt or destroy the ground in any manner;
7. disturb, remove, alter, disrupt or destroy vegetation in any manner, including but not limited to the cutting of live trees and shrubs; or
8. carry out any type of watercourse or wetland enhancement activity, including but not limited to debris removal, habitat development or placement of structures.”

Also In accordance with the Environmental Protection Act of Prince Edward Island, Watercourse and Wetland Protection Regulations, “No person shall, without a license or a Buffer Zone Activity Permit, and other than in accordance with the conditions thereof, engage in or cause or permit the engaging in of any of the following activities within 15 metres of a watercourse boundary or wetland boundary:

1. drain, pump, dredge, excavate or remove soil, water, mud, sand, gravel, stones, rocks or aggregate
2. dump or infill, or deposit soil, water, mud, sand, gravel, stones, rubbish, litter, rocks, aggregate or material or objects of any kind;
3. construct or place, repair or replace, demolish or remove, buildings or structures or obstructions of any kind, including, but not limited to bridges, culverts, breakwaters, dams, wharves, docks, slipways, decks or flood or erosion protection works;
4. operate heavy equipment or a motor vehicle, other than
  - (a) upon a highway,
  - (b) upon a private road, right-of-way, or driveway which was approved prior

to the enactment of these regulations by the provincial government or a municipal government in a building permit or a subdivision plan, or

- (c) for the conduct of activities directly related to the legal harvesting of a fishery resource, the legal removal of beach material, or the cultivating of an agricultural crop;
- 5. disturb, remove, alter, disrupt or destroy the ground in any manner;
- 6. cut down live trees or live shrubs;
- 7. cultivate an agricultural crop;
- 8. spray or apply pesticides in any manner.



Prince Edward Island contains a diverse range of aquatic habitat in its many watercourses, wetlands and coastal waters. This habitat supports a large variety of aquatic species, terrestrial wildlife, and plants. When planning watercourse or wetland alteration activities, applicants should carefully consider the protection of aquatic habitat and provision of fish passage.

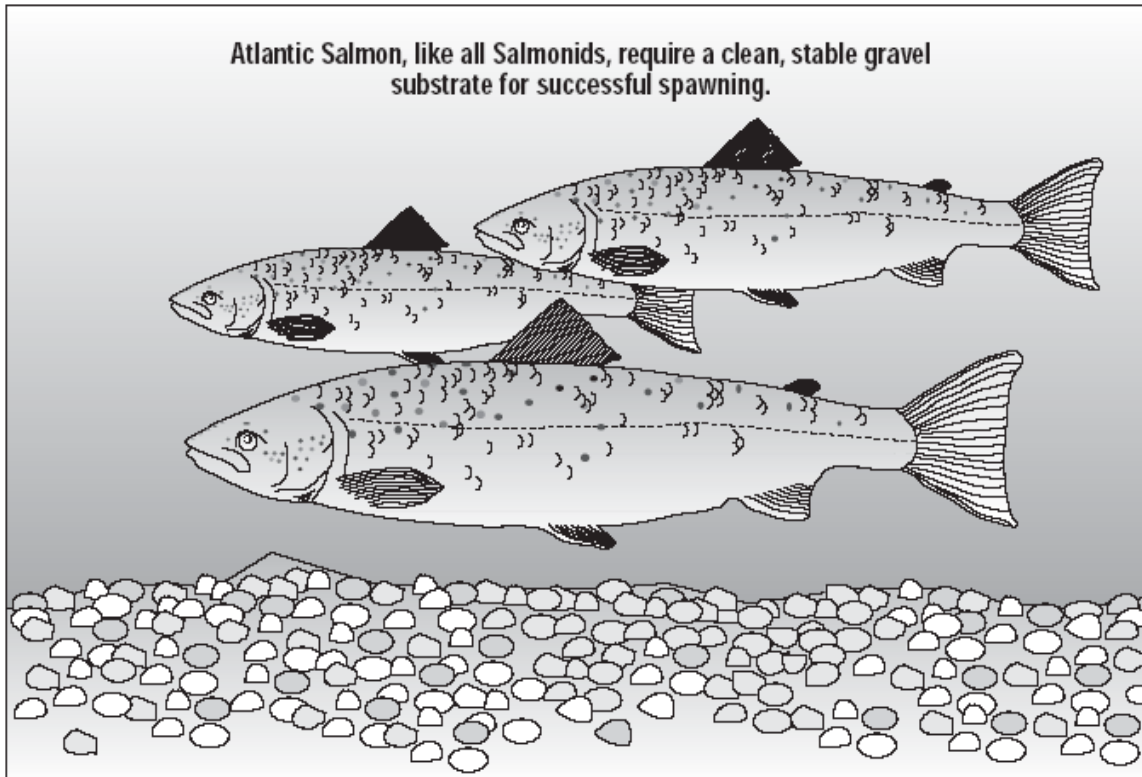
Wetlands are a vital element of Prince Edward Island's ecosystems and serve many important ecological functions. They maintain biodiversity by providing habitat for a wide range of waterfowl, furbearers, fish, reptiles and flora and provide natural purification and storage of freshwater for humans, fish and wildlife. They are a refuge for rare and endangered species.

Despite the biological and socioeconomic value of wetlands, there has been steady incremental loss and degradation of this habitat over the past 200 years. For example, many of our coastal salt marshes have been reduced or lost to other functions.

This loss has been a cumulative process, remaining virtually undetected over decades until it has now reached an advanced state. The "Prince Edward Island Wetland Conservation Policy" (Appendix H) requires that existing wetlands management and protection mechanisms are used to control development in and adjacent to wetlands. This is to ensure no net loss of wetlands and wetland function.

The Fisheries Act (Appendix C) defines fish habitat as spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes.

Many species of fish are hatched and reared in fresh water and migrate to the ocean to grow, returning to fresh water to reproduce. These include the salmonids (e.g. Atlantic salmon, sea trout), gaspereau, and smelts. Conversely, the American eel is hatched in salt water and migrates to rearing areas in fresh water, returning to saltwater to spawn.



Shellfish, including clams, oysters and mussels inhabit estuarine and coastal waters throughout their lifecycle and contribute to important aquaculture and shellfish harvesting activities.

Habitat requirements vary with each stage in the fish's life cycle. Basic requirements of most species include:

- Clean, clear water – Water should be clean and free of deleterious substances with minimal suspended particulate matter. Most suspended sediment is made up of soil particles released due to erosion of the banks and bed of a watercourse or disturbed upland areas. The suspended sediment in highly turbid water can interfere with the feeding habits of fish as well as breathing processes and migration patterns.
- Suitable water temperatures and dissolved oxygen levels - Temperatures of 24°C or more are considered lethal for some species such as the salmonids and extremes in temperature can affect fish migrations. Well oxygenated water is especially critical during egg

incubation, hatching and the first few weeks of life. The levels of dissolved oxygen in water are decreased by increases in temperature.

- Clean bottom substrates - Substrates include the materials such as rock, boulder, gravel, sand and sediment on the bottom of our watercourses and coastal waters. Many species of shellfish, such as clams, oysters, mussels and many of the organisms upon which fish feed, dwell on or within bottom substrates. Some fish species, particularly in early life stages, utilize this substrate for protection from predators and high water flows and currents. Bottom substrates are also important spawning and nursery areas for many species. Salmonids, for example, bury their eggs in clean gravel during the fall, where they remain until they hatch into the larval form called alevins. Alevins are highly sensitive to habitat disturbance and will remain in the gravel until they emerge the following spring.

Substrates, therefore, should be free from contaminants, deposits of suspended sediment, and construction debris including plastics which can smother habitats or impair the respiration and general health of aquatic life.

**Fish Passage** - Adult fish migrate to spawn, to find food, to escape predation, or to reside in deeper pools before the winter freeze-up occurs. Juvenile fish may migrate to rearing areas in small creeks and channels. Unobstructed migration routes and water characteristics conducive to the swimming ability of fish are necessary for migrations to occur. Adult salmonids must reach spawning grounds at the proper times and with enough energy to complete the life cycle. The swimming ability of fry and juvenile fish is limited by body length, making it more difficult to swim if confronted with an obstruction.

Dams without fishways, blocked culverts, or debris jams present physical obstructions to fish passage. Other barriers, such as increased flow velocities, may not be immediately apparent. Barriers created by improperly designed or installed culverts are common. These barriers are created by conditions which impede fish swimming ability and include the following:

- culvert slope greater than 0.5%, or variable slope
- perched outlet
- channelization of flow leading to increased velocity
- inadequate water depth caused by an oversized culvert
- culvert length

Other impediments to fish passage resulting from improperly planned, or performed, alterations include:

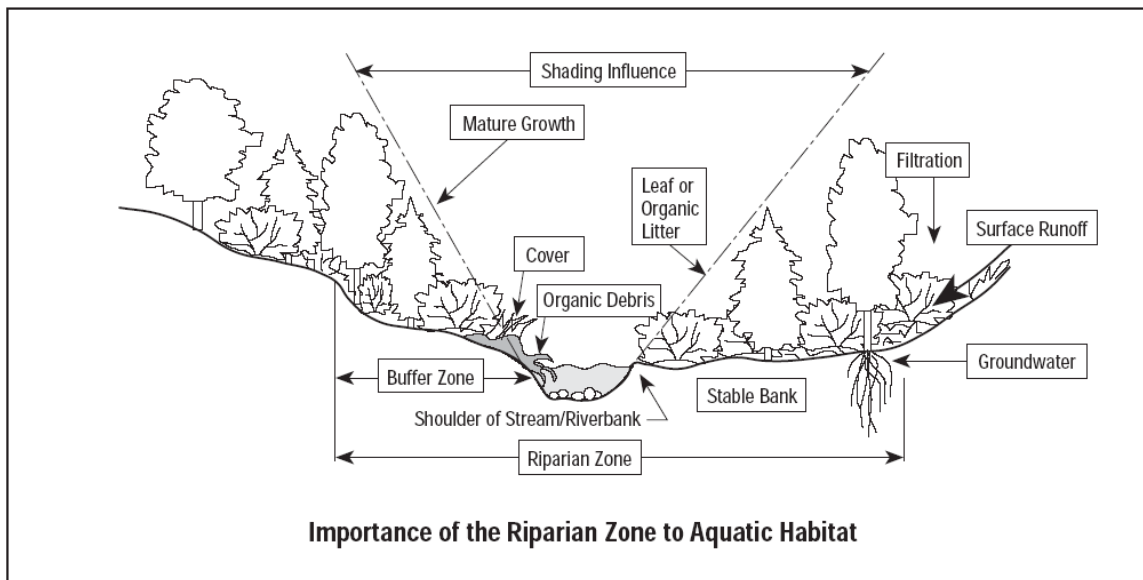
- reduced concentrations of dissolved oxygen;

- high turbidity;
- excessively high or low temperatures
- chemical barriers resulting from spills or leaks of deleterious substances
- a lack of water due to water withdrawals or stream diversions.

**Riparian Vegetation** - The vegetation in riparian zones is crucial for maintaining and nurturing fish habitat by providing the following:

- Shade - The vegetation along the banks of the watercourse scatters the sunlight and shades the water, protecting it from the heating effects of the direct sun.

- Food - Riparian vegetation contributes insects and detritus such as leaf litter into the watercourse which act as food sources for the fish.
- Shelter - Riparian vegetation, in the form of tall grasses, shrubs and trees, protects fish from predators.
- Erosion Control - The root system of vegetation contributes to bank stability and intercepts runoff which limits erosion and sedimentation, protecting fish habitat from the harmful effects of sedimentation.
- Filter - Vegetation and root systems act to filter out pollutants such as pesticides, bacteria, fertilizers, heavy metals, sediment, and hydrocarbons.



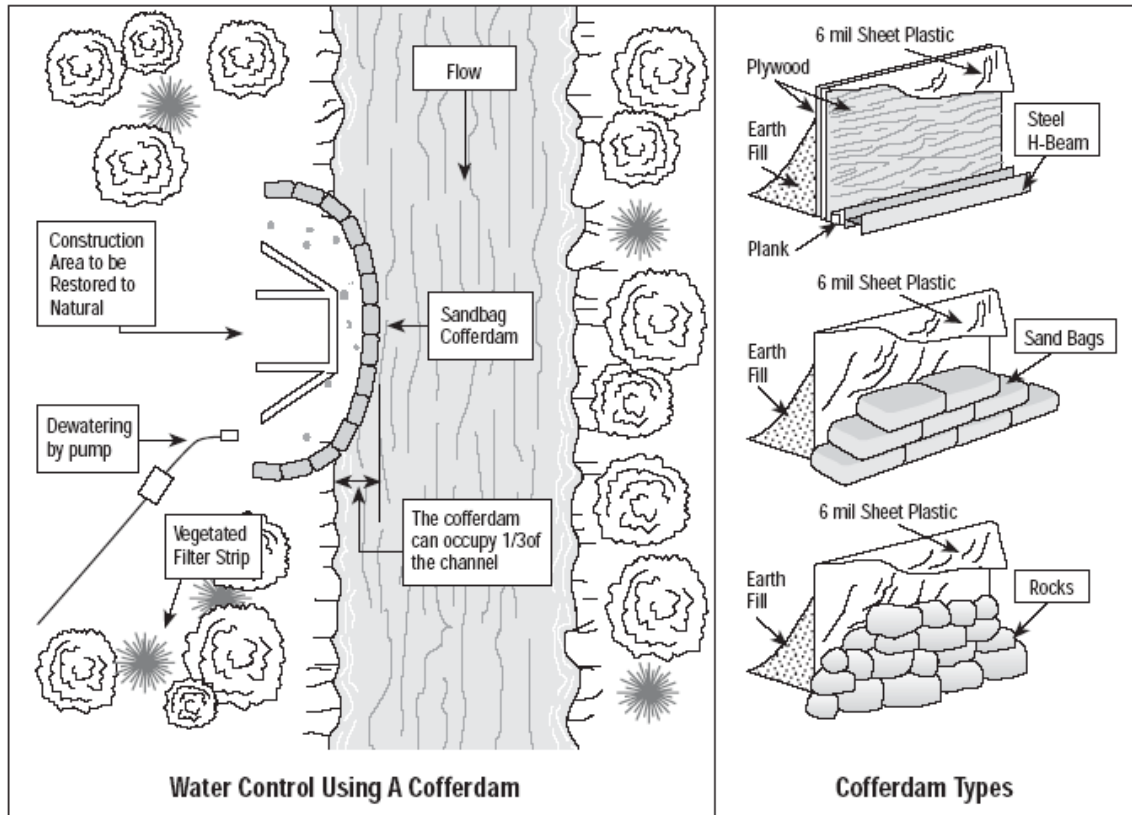
**General Planning Considerations and Guidelines for Site and Water Management**

Construction sites and activities are constantly dealing with water management. This management may be due to groundwater or surface water, along with wet weather conditions. Understanding a construction site prior to initiating ground disturbance is essential in order to be prepared for water control measures, erosion control and sediment control.

Effective mitigation measures can improve site management and reduce the potential of watercourse, wetland or buffer zone impacts. A **site risk assessment** should be undertaken for all sites to determine the

potential for problems and identify solutions which can include best management practices. Once completed, the design must incorporate these issues in order to have them addressed. All stages of construction should include effective water control measures, erosion control measures and sediment control measures.

Where possible, **surface water** should be diverted around the site and the site isolated so that clean water does not become contaminated with sediment or affect the construction site. **Construction activities adjacent to or within the watercourse must be isolated from the water.** This can be done by the construction of cofferdams, temporary diversions and pump-arounds.



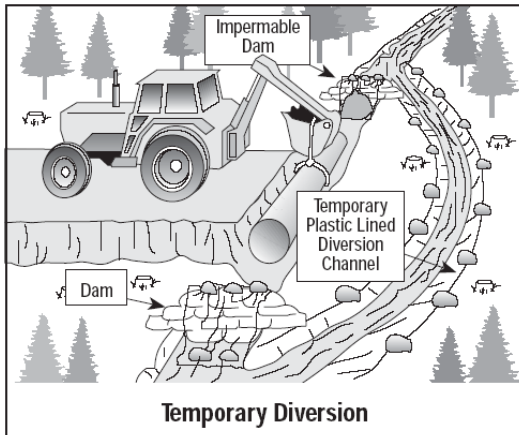
**Cofferdams** can be constructed to isolate the work area from flowing water. At least two-thirds of the cross-sectional area of the channel must be open at all times. Cofferdams may consist of: sheet piling or a layer of 6 mil plastic sandwiched between an inner wall of in situ earth fill and an outer

wall of either rocks, sandbags, or a steel H-beam attached to the bottom of a sheet of plywood. If piers are constructed in open water where it is not possible to build a cofferdam, a floating silt curtain anchored to the bottom should be placed around the work area.

No excavation may be carried out inside the cofferdam until the cofferdam is completely closed.

Silt-laden water pumped from inside the cofferdam should be pumped into a settling pond, behind a filter fabric dam, or onto an adjacent vegetated area where it can be filtered so that suspended sediments entering the watercourse are minimized.

The cofferdam material must be removed immediately upon completion of the alteration.



**Water diversion activities** can be undertaken by one of the following methods:

- constructing a temporary plastic lined diversion. The diversion channel must be parallel to the existing channel and excavated from the downstream end.
- stemming the flow upstream of the structure and pumping the flow around the site to a point immediately downstream of the work area. An impermeable cofferdam must be constructed to block the flow upstream of the construction site and a system must be established that ensures the water is constantly pumped around the site until the installation is completed.
- other techniques as approved by the Regulatory and Advisory agencies.

**General Planning Considerations and Guidelines for the Use of Appropriate Equipment**

Choosing the appropriate tool for the proposed activity, while considering site characteristics is critical. Instream work with heavy machinery can never be regarded as harmless. Some of the more significant adverse effects of projects carried out within a watercourse or wetland using heavy machinery are:

- obstruction of the watercourse during the spawning migration of fish species (e.g., salmon, trout, gaspereau, smelts);
- impairment of wetland function as a result of sedimentation and compaction;
- destruction of the banks of a watercourse resulting in increased erosion;
- sedimentation of shellfish beds leading to the smothering of larval (spat) and mature shellfish;
- sedimentation of fish spawning beds after egg deposition leading to smothering of the eggs; negative effects of excessive sediment on trout and Atlantic salmon; and the destruction of aquatic invertebrates which fish and wildlife species require for food.

If any equipment is to be used in the watercourse or wetland it must be mechanically sound, having no leaking fuel tanks or hydraulic systems, and be steam cleaned free of petroleum products and dirt.

No washing of tools, forms or machinery may occur in, or adjacent to, a watercourse or wetland.

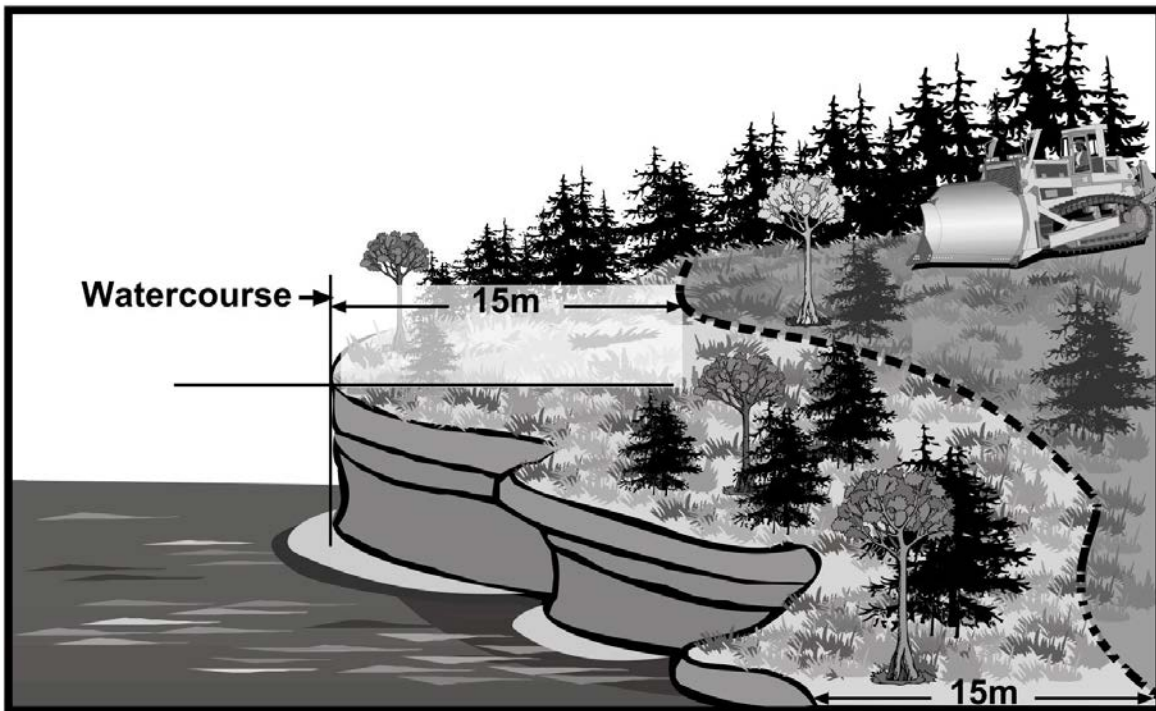
Machinery and potential pollutants (e.g., fuel, oil) must be contained and stored so as not to pose a hazard to the watercourse or wetland.



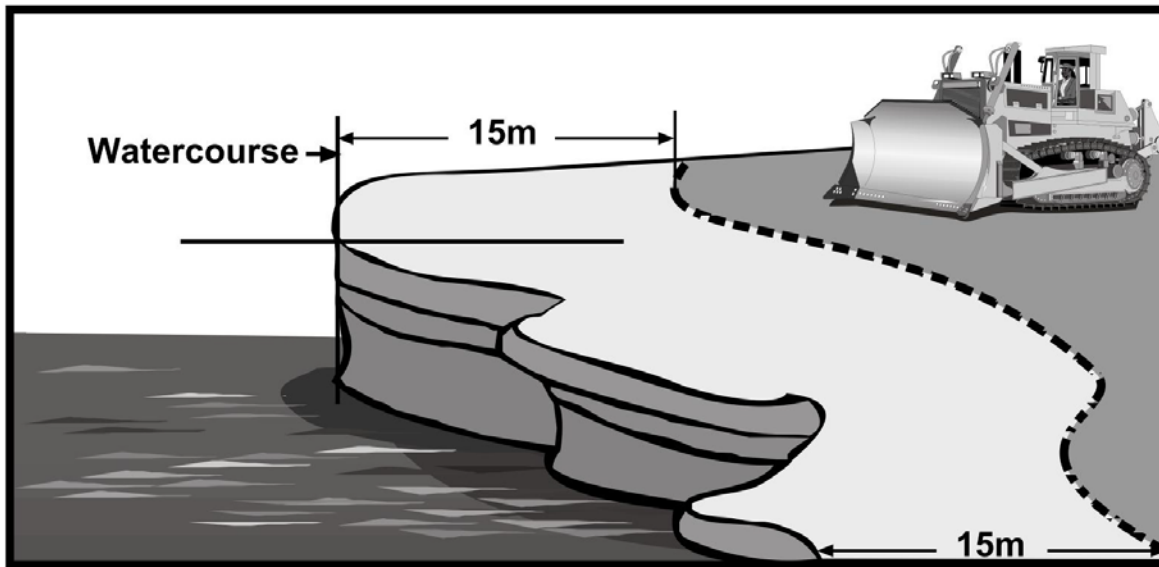
Buffer zones (strips of land area adjacent to a watercourse or wetland) are an important tool in helping protect Prince Edward Island's watercourses and wetlands from erosion and sedimentation. Vegetated buffer zones help to trap silt and other contaminants (i.e., nutrients, pesticides, bacteria) that may be found in run-off water prior to their entering Island streams, wetlands and estuaries. In addition to protecting the aquatic environment, buffer zones also provide excellent habitat and travel corridors for a variety of wildlife species. The riparian zone, which may include all or a portion of the 15 metre buffer zone, is among the most productive of wildlife habitats. Riparian zones are areas of transition between watercourses/wetlands and uplands and are often characterized by a greater diversity of wildlife species compared to the adjacent upland area.

All watercourses and wetlands require a buffer zone of 15 metres (49.5 feet). For freshwater streams they are measured from the edge of the sediment bed; for tidal areas they are measured from the top of the bank; and for wetlands they are measured from the edge of the water tolerant vegetation. In addition, some agricultural crop activities are affected up to 200 metres (656 feet) from the watercourse or wetland.

There are some exceptions to the restrictions on carrying out activities in the buffer zone adjacent certain types of wetlands. For example, a permit is not required to grow an agricultural crop or cut down a live tree or shrub in the buffer zone of a wetland classed as solely or a combination of seasonally flooded flats, shrub swamp, wooded swamp, bog or meadow.



**A 15 metre buffer zone surrounds all watercourses and wetlands. No disturbance of the soil/treecutting/addition of fill material, etc. is allowed within a buffer zone without a permit.**



**A permit is required for activities within 15 metres of a watercourse or wetland.**

#### Crop Production

- Planting of agricultural crops within 15 metres of a watercourse or wetland is not permitted.

If row crops are to be grown within 200 metres of a watercourse or wetland, individual rows must drain onto a grassed headland which is at least 10-metres in width and which was established in the calendar year prior to the year in which the row crop was planted.

If the 15-metre buffer zone is in grass, it can be used as the headland. If it is in trees, an adequate grassed headland must be left upslope of the trees if row crops are grown within 200 metres of a watercourse or wetland.

#### Livestock Operations

Buffer zones must be maintained at sites with intensive livestock operations (i.e., animals are kept in a confined area, the animal density is greater than seven per acre and feed/water are delivered).

Livestock waste or contaminated runoff from intensive livestock operations cannot be discharged into any watercourse or natural wetland.

Forage crops may be grown under Permit within the buffer zone and can be renewed once every five years using spring tillage and under-seeded cereal crop.

New intensive livestock operations (buildings, manure storage, exercise yards, concentrated feeding areas) cannot be constructed within 90 metres of a watercourse or wetland. Existing operations within 90 metres need prior approval in order to expand.



**Impacts to Water Levels or Flow**

Improperly designed or constructed structures (e.g., dams, bridges, culverts) or changes made to the bed or banks of a watercourse may cause unstable channel conditions causing erosion, meandering and increased potential for flooding. These impacts could result in property and watercourse or wetland damages downstream or, in the case of failed dams, even the loss of life.

Activities may also cause substantial changes in the availability of water suitable for domestic and industrial consumption as well as for a number of other uses including agriculture, forestry, fishing, aquaculture, mineral development, tourism, outdoor recreation, and power production.

**Erosion & Sedimentation**

In a pristine environment a natural balance exists between erosion and deposition in a watercourse; a section of land erodes, the eroded particles are deposited downstream or deposition occurs during a low flow period followed by erosion at the same location the next time high flows occur.

On Prince Edward Island this natural balance has been upset due in part to the highly erodible qualities of the soil in conjunction with present land use practices. As a result, excessive soil erosion has long been identified (by a number of studies and public forums) as the largest environmental issue in the province. Most, if not all, of this sediment eventually comes to rest in our watercourse and wetlands, causing severe degradation of water quality and diminished aquatic/wildlife habitat.

Land use practices, including agriculture, highway construction and maintenance, and forest harvesting have improved in recent years, yet most of our watercourses and wetlands suffer from years of accumulated sedimentation. Some of the most common and serious consequences of an improperly planned watercourse or wetland activity are caused by erosion and sedimentation. Managing this sediment must be a primary consideration in the undertaking of any watercourse, wetland or buffer zone activity

in Prince Edward Island.

Erosion reduces the stability of the banks of a watercourse which could lead to slope failure and loss of adjacent property. Erosion of the banks of a watercourse and adjacent areas may destroy the riparian vegetation. Eroded soil particles may be washed into the watercourse. These particles, particularly if they originate from agricultural land, contain nitrogen, phosphorous and other nutrients which can lead to development of thick algal blooms, reducing oxygen content and water clarity for the fish population.

Sediment can vary in size between fine clay to small pebbles. The amount that remains suspended in water depends on the particle size and flow velocities in the watercourse. The deposition of suspended sediment occurs when the velocity of water can no longer transport the sediment. (See Table 1.)

**Table 1: Transport velocities for various sizes of bed materials.**

	Transport Velocity Material (cm)	Size (mm)
Clay	> 15	< 0.002
Silt	15 – 30	0.002 – 0.02
Sand	30 – 65	0.02 – 2.0
Gravel	80 – 120	5.0 – 15
Pebble	140 – 240	25 – 75
Cobble	270 – 390	100 – 200

Most of the sedimentation problems are caused by fine sand size (.25mm) to silt size (.002mm) particles. Fine clay particles can stay in suspension for a very long time and up to 200 days.

Sedimentation of watercourses is destructive to fish habitat whether the sediment remains suspended in the water or settles out. The following conditions are the result of excess sediment entering the watercourse:

- Suspended solids entering the watercourse may coat and abrade the body surfaces of fish, including their

sensitive gill areas. It may cause them to overproduce mucous, blocking the absorption of dissolved oxygen, or accumulate on the gill surfaces, causing them to hyperventilate or smother.

- Fine particles blanket the bed of the watercourse, filling in and eliminating the interstitial spaces in the gravel beds where eggs are incubating, or where the alevins are resting and feeding, eventually smothering and killing them.
- The turbidity caused by suspended sediments prevents sunlight from reaching the bottom of the watercourse reducing photosynthesis in algae and rooted aquatic plants, leading to a reduced food supply for all aquatic animals.
- Deposition of sediment in the watercourse on existing clean gravel bottoms renders them unsuitable for spawning or resting grounds. Accumulation of suspended sediment can lead to a decrease in water depth, causing overheating of the water, resulting in temperatures above the acceptable ranges for fish and shellfish habitat.
- Increased turbidity levels can cause changes in fish feeding behaviour, since salmonids feed by sight and prey is less visible. It could result in starvation of fish in the affected area.
- Bottom dwelling organisms, upon which fish depend for food, such as aquatic insect larvae or other aquatic invertebrates, may be smothered and killed or their habitats destroyed.
- Sediment may scour invertebrates and aquatic plants from their substrates in the watercourse.
- Deposition of sediment in the watercourse may interfere with the spawning and feeding habits of aquatic animals (fish, shellfish, crustaceans).
- Shellfish resources (commercial,

recreational and aquaculture) may be smothered and killed or their habitats destroyed.

- Deposition of sediment resulting in unstable watercourse substrate.
- Culverts may become plugged with sediment or other material resulting from slope failure, leading to flooding, road washouts and introduction of debris into the watercourse.
- Introducing sediment into a watercourse may diminish drinking water quality. If the flow capacity is lowered by a reduction of channel capacity, the potential for flooding is increased.

All surface erosion and sedimentation control undertakings may not fall under the definition of a watercourse or wetland activity although almost all activities have the potential to introduce sediment into the water body. One of the mandates of the Watercourse, Wetland and Buffer Zone Activity Program is to avoid sedimentation of watercourses by requiring that preventative measures be taken during the construction phases of the project. It is worthwhile, therefore, to devote a discussion of the general practices and some specific measures used to prevent and control these processes.

**Design Principles**

If basic principles for prevention of surface erosion and sedimentation are considered at the design stage of the project, potential problems will be minimized. These principles are as follows:

- Limit the size of the disturbed area.
- Limit the time the disturbed area is exposed.
- Plan construction to coincide with the low flow period from June 1st to September 30th of every year.
- Retain existing vegetation wherever feasible. Erosion is minimized on a surface covered with natural vegetation.

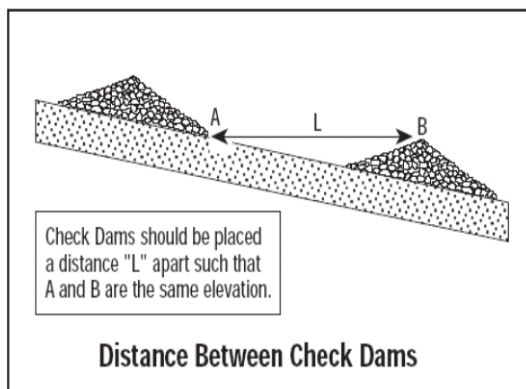
- Stabilize or re-vegetate exposed areas.
- Divert upland surface runoff away from exposed areas. Berms, dykes and swales may be used to divert runoff.
- Minimize the velocity of surface runoff by limiting the slope and gradient of disturbed areas, covering erodible soils with mulch, vegetation or rip-rap and constructing check dams or similar devices in swales and ditches.

**Construction Techniques**

It is essential to place sediment control devices before the construction phase of an activity begins in order to intercept and trap sediment before it reaches the watercourse or wetland. These devices must remain in place until permanent vegetation has been established or the site is otherwise stabilized. Specific sediment control measures are listed below.

**Check Dams**

Ditches or man-made swales are used to concentrate flow beside a road, adjacent to a disturbed or newly seeded area, or towards a sediment pond or vegetated area. This concentrated flow may erode the ditch.



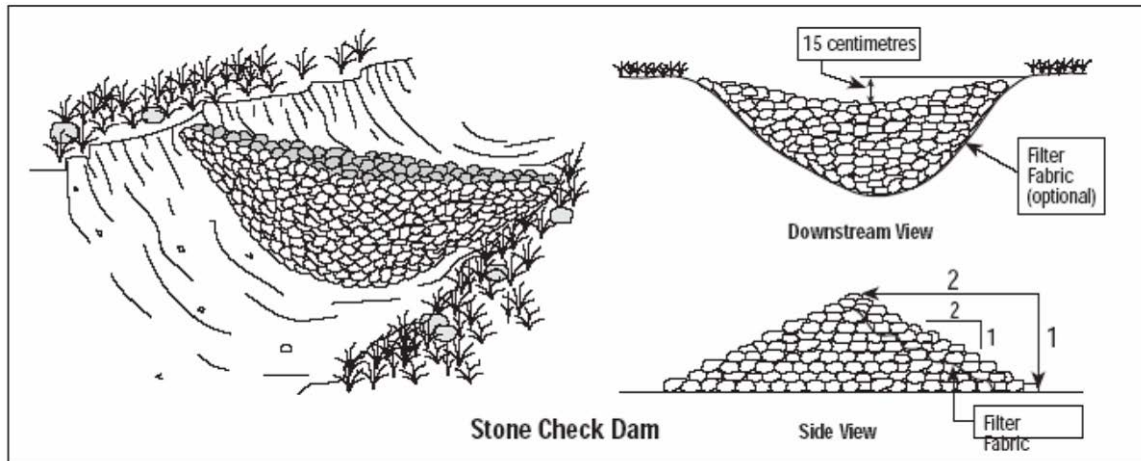
Check dams are *temporary structures* made from stones, straw bales, sandbags, or logs constructed across a ditch to reduce the velocity of the concentrated flow and thereby the potential for erosion until permanent stabilization of the disturbed area has been established.

The following criteria apply to the use of

check dams:

1. The check dams should be installed before runoff is allowed to flow through the ditch.
2. The dams should be constructed so that the centre of the dam is at least 15 centimetres lower than the elevation at which the ends of the dam tie into the existing ground. This may be accomplished with a notch in the centre of the dam.
3. The dams must be embedded into the bottom and banks of the ditch to prevent undercutting and runaround.
4. Check dams spacing depends on the slope of the ditch and erodibility of the soil.
5. Regular inspections are necessary to ensure that sediment does not accumulate to an elevation of more than half of the height of the dam at which point the accumulated sediment should be removed.
6. Before removal of the check dam, all accumulated sediment must be removed and disposed of in an area such that it cannot re-enter any watercourse.
7. Check dams should be removed when they are no longer needed or when the ditch becomes permanently stabilized with vegetation or a non erodible lining.

**Stone Check Dams** are usually constructed with stones having a minimum dimension of approximately 50 millimetres. A geotextile filter should be placed under the stones to provide a stable foundation and to facilitate removal of the stones with minimal disturbance to the original ground. This filter should be keyed into the base of the dam to prevent flow beneath the fabric and sandwiched between the stones on the vertical section of the dam. Stone check dams vary in height up to 1.0 metres, depending on the size and drainage area of the ditch and should be placed such that the



elevation of the toe of the upstream dam is the same elevation as the top of the downstream dam.

**Straw Bale check dams** must be keyed into the ditch and staked with two stakes angled towards the adjacent bale. Straw bales should be checked regularly and immediately after each rainfall for repair or replacement if necessary. Straw bales are recommended over hay bales because they do not deteriorate as rapidly.

#### Straw Bales and Silt Fences

Straw bale barriers and silt fences function as sediment barriers which are placed around the downslope perimeter of a disturbed area or along the bank of a watercourse in order to intercept and filter runoff, trapping the sediment before it reaches a watercourse.

The following criteria apply to the use of straw bale barriers and silt fences:

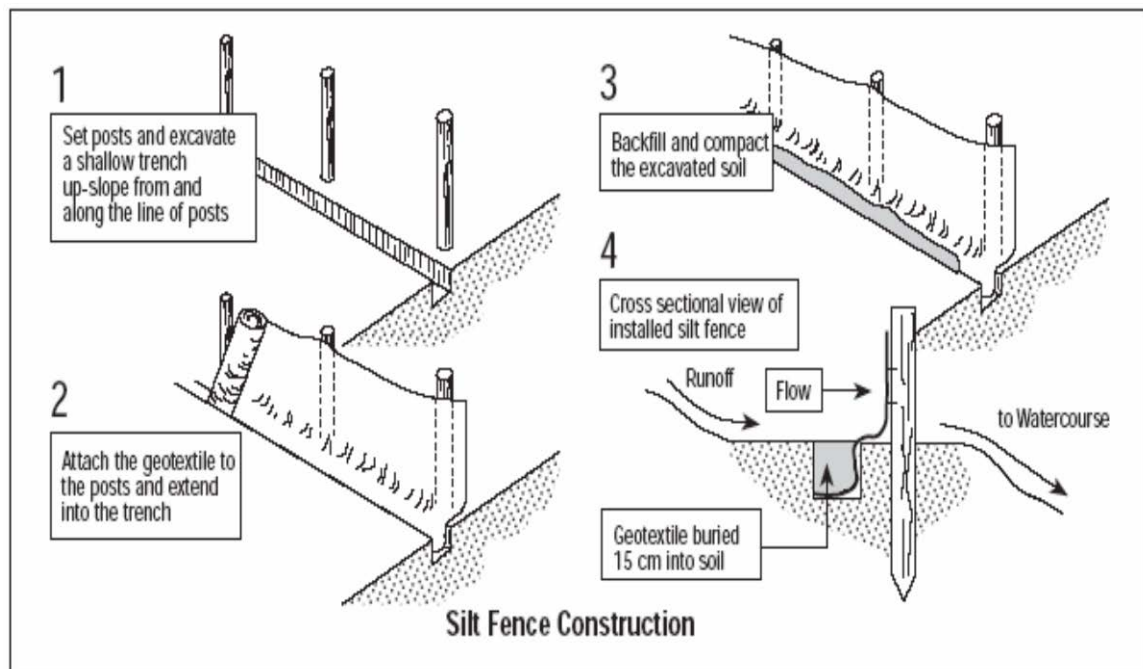
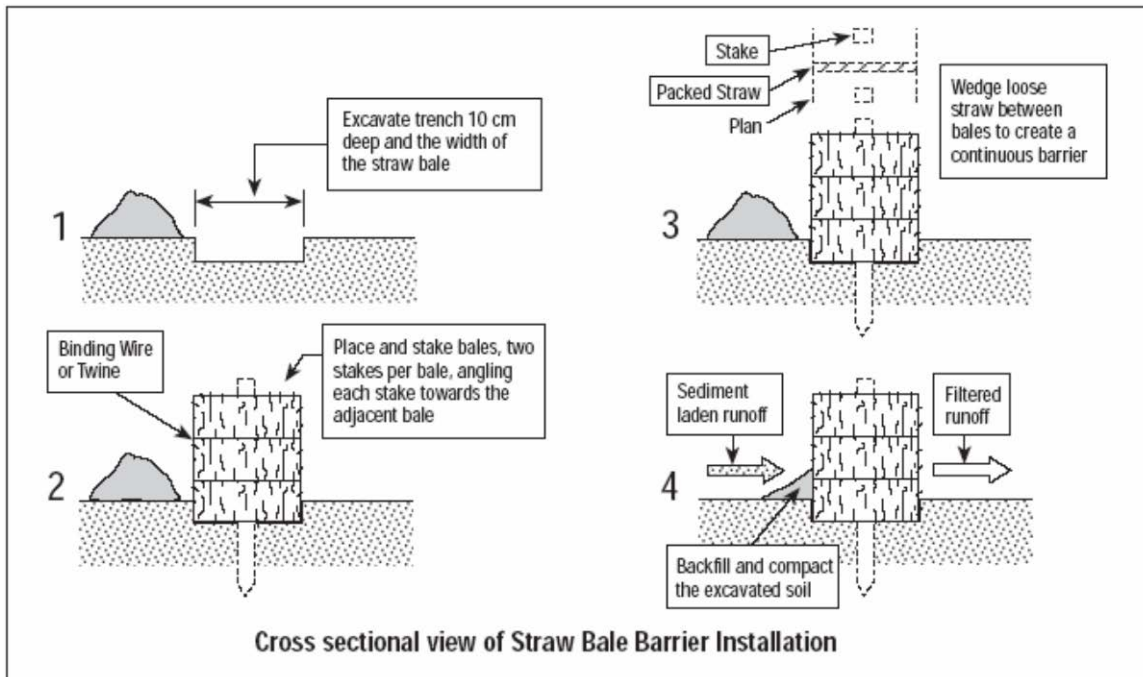
1. The slope behind the barrier should be no steeper than 2:1.
2. These sediment barriers should be erected prior to any soil disturbance of

the upland area.

3. Sediment deposits should be removed when they reach one half the height of the filtering medium.

**Straw Bales** may be used if they are bound with wire or string. They should be placed lengthwise in a trench, staked, (at least two stakes per bale), and a small bank of fill placed against the downslope side. Straw bale barriers should be checked regularly and immediately after each rainfall for repair or replacement if necessary.

**Silt Fences** - Woven and non-woven synthetic fabrics are available for use as silt fences. The fabric is erected, to a height no greater than 0.9 metres above ground level, using wooden or steel posts. Reinforcement of the fabric may be necessary. The bottom of the fabric should be buried in a trench that's backfilled. Silt fences are more costly than straw bales but usually last longer (up to 6 months) and are more effective when checked regularly and immediately after each rainfall for repair or replacement if necessary.



**Water Diversion**

These temporary channels or dykes are constructed across the slope for the purpose of diverting surface runoff from upslope

drainage areas away from disturbed areas to a stabilized outlet or a sediment trapping facility until permanent stabilization has occurred.

**Diversion Channels** are excavated channels with a supporting ridge on the lower side. The channels can be parabolic, V-shaped or trapezoidal. The dyke should be stabilized immediately with temporary or permanent vegetation. The channel may be stabilized with vegetation or rip rap. The diversion must have an outlet that conveys the outflow to a point where the discharge will not cause any erosion. The outlet may be a grassed waterway, a vegetated or paved swale or a stable ditch. Maintenance is necessary to maintain diversion capacity, storage, ridge height, vegetative cover, and the outlet. When constructed properly, these structures are durable, economical, effective, and require little maintenance.

#### **Re-Vegetation General Guidelines**

The above techniques are temporary measures aimed at preventing sedimentation of watercourses or wetlands resulting from erosion by surface runoff of a disturbed area. These techniques should only be maintained until permanent vegetation is established on the disturbed area. Re-vegetating disturbed areas for long term protection should be a part of erosion control plans for every project.

The following guidelines apply to re-vegetation:

1. Utilize erosion and sediment control techniques where needed. Grade the disturbed area to a stable uniform slope. Vegetative cover will never develop on an unstable slope until it has eroded back to a stable angle. This angle is generally accepted as 2 horizontal to 1 vertical. Remove stones or debris. Loosen the soil by hand raking. Fertilize where necessary.
2. Plant when the weather will permit suitable temperatures and moisture for plant growth. Spring plantings give the best results. Seeds should not be planted within 45 days of the first killing frost. Germination may occur but the seeds would not likely survive the winter.

3. Mulch increases the odds of successful re-vegetation by conserving moisture, modifying soil temperatures, and preventing soil compaction.
4. Choose a low maintenance seed mixture that is adapted to the local climate and soil conditions and which is fast growing.
5. Hydro-seeding is an acceptable process where a slurry of seed, fertilizer, wood fibre mulch and water is sprayed on the exposed area.

#### **Mulching**

Mulch is a layer of natural or manufactured material placed or sprayed onto exposed soil to control erosion, encourage germination and growth of vegetation, and/or discourage the growth of weeds. Mulch controls erosion by reducing both the impact of raindrops hitting the soil surface and the velocity of overland flow, permitting run-off more time to infiltrate the soil. It encourages vegetation growth by conserving moisture, maintaining humidity, reducing soil compaction, reducing soil surface freezing and thawing, and minimizing disturbance of the seed.

Straw and hay mulches are highly effective, readily available most years, and widely used for temporary erosion control and to aid in the establishment of permanent cover. Straw mulch has the advantage that its "true" mulch nature resulting from its greater thickness, provides a micro-environment conducive to germination. If straw is harvested for use as a mulch, bailing should take place after a light rain to ensure that bales have sufficient moisture content so they don't fall apart when being handled during spreading. It is recommended that jute twine be used on bales as opposed to nylon. Jute will quickly biodegrade and will not become tangled in equipment causing damage and costly downtime in subsequent field operations.

Other types of mulches include foliage and branches, wood chips, jute cloth and a

variety of hydraulic mulches (sprayable mixes).

Applying seed with straw mulch is a two or three step process in which the seeding and mulching are carried out in sequence. Normally the seed and fertilizer are applied by hand or machine. Studies by the *Prince Edward Island Department of Agriculture and Fisheries* on residue management indicate that mulches get the best result if they are not compacted into the soil. A seed with crimped straw mulch may have to be used on sandy soils or areas of concentrated water flow where other mulches may be easily displaced. In this application, the seed is applied first and then the same day the straw or hay mulch is applied by hand or machine to an initial depth of between 35 to 50 mm. The straw is then crimped or indented into the ground 35 to 60 mm by discing, by driving over the newly applied straw with a steel tracked vehicle with deep cleats on the tracks, or by utilizing a hand tool such as an ice chipper.

#### **Soil Stabilization Blankets**

Soil stabilization blankets (such as jute mats, burlap or woven geotextiles) can be used to help establish vegetation on previously disturbed slopes, normally problem slopes of 3:1 or greater. These blankets are biodegradable and therefore decompose over time. Jute mesh is a uniform, open, plain weave of undyed and unbleached single jute yarn. Jute mesh provides good coverage (large surface area of strands) and contains such small openings that it can be used alone as a blanket. Woven geotextiles are very useful in areas with slopes where other sediment control measures are not effective. They can be purchased with the seed already inserted in the geotextile allowing for a quick germination period.

Since these materials will decompose over time, they should be used in permanent conveyance channels with the realization that the system's resistance to erosion is based on the type of vegetation planted and the existing soil's characteristics.

When using jute or burlap, seed and mulch should be applied before laying the net. Start laying the protective covering from the top of the channel or top of the slope and unroll down. Allow it to lay loosely, do not stretch. Upslope ends of the protective covering should be buried in an anchor slot not less than 15 cm deep. Tamp the earth firmly over the material. Staple the material at a minimum of every 30 cm across the top end. Edges of the material should be stapled every one metre. As a final check one should be certain that:

- The jute, burlap or geotextile is in uniform contact with the soil;
- All lap joints are secure;
- All staples are driven flush with the ground; and
- All disturbed areas have been seeded.

#### **Temporary Berm and Slope Drain**

A temporary slope drain is defined as flexible tubing or conduit extending from the top to the bottom of a cut or fill slope. Concentrated run-off is temporarily and safely conducted down the face of a cut or fill slope without causing erosion on or below the slope. Temporary slope drains can provide valuable protection of exposed slopes until permanent drainage structures can be installed or vegetation can be established.

Temporary slope drains can be used in conjunction with diversion dykes to convey runoff from the entire drainage area above a slope to the base of the slope without erosion. It is very important that these temporary structures be installed properly since their failure will often result in severe gully erosion in the site and sedimentation below the slope. The entrance section must be securely entrenched, all connections must be watertight and the conduit must be staked securely.

**SECTION 3:**

**GUIDELINES FOR SPECIFIC WATERCOURSE,  
WETLAND AND BUFFER ZONE ACTIVITY TYPES**



## Purpose

The purpose of this activity is to reduce the interference of aquatic plants (i.e., macrophytes) with the navigation of boats, irrigation water withdrawal, fishing and aquaculture activities (shellfish and finfish), swimming and other recreational uses.

## Definition

Aquatic vegetation control is the management or control of plants in bays, estuaries, rivers, ponds, and other types of impoundments.

## Environmental Protection Objectives

- To minimize disturbance to the aquatic environment.
- To minimize disturbance to fish, shellfish and wildlife habitat.
- To maintain or improve water quality.
- To minimize risk of spreading invasive species (coastal waters and estuarine habitat).

## Planning Considerations

Aquatic plants provide many benefits. Macrophytes in particular are an important component of fish habitat, providing cover, spawning, nursery and feeding areas for many species. They also provide essential habitat for many species of wildlife, including food, nesting sites, and protective cover for waterfowl as well as substrate for the attachment of invertebrates. Rooted aquatic plants also act to stabilize shorelines and watercourse substrates. This helps to maintain water quality by reducing erosion and turbidity. **In view of the benefits provided by aquatic plants, the need for plant removal should always be evaluated carefully.**

Some nutrient rich waters may support excessive plant growth which may be detrimental to both healthy aquatic communities and recreational use. Excessive aquatic growth impacts adversely on water quality. Plants, including algae, produce oxygen through photosynthesis during daylight hours and consume oxygen with respiration at

night. Thus, the lowest oxygen levels in a watercourse are normally found at dawn. In ice covered ponds, plants continue to respire and consume dissolved oxygen. Normally, some regions of all ponds retain adequate supplies of dissolved oxygen for survival of aquatic plants as well as fish in the winter. The zone near the bottom of the pond may have extremely low oxygen levels, compared to other areas. Fish kills can occasionally occur during spring overturn when the water is thoroughly mixed, and the overall oxygen level becomes depleted (<4 mg/L).

Increased plant growth often occurs over long periods of time as a result of the natural aging process of a watercourse or wetland. It is part of the ecological cycle and should be recognized as such. However, plant growth is often accelerated by human activities occurring in the watershed. Addition of nutrients through shoreline development, lot clearing, use of lawn fertilizers and high-phosphate dishwashing detergents, and agricultural runoff all contribute to the excessive growth of plants.

Aquatic plants that become invasive/noxious in these various habitats may grow entirely submersed, float on the water surface, or be anchored to the hydro-soil with their leaves on or above the water surface. On Prince Edward Island, pondweeds (*Potamogeton spp.*) and coontail (*Ceratophyllum demersum*) are found in many aquatic areas and are non-native invasive species of concern. Purple loosestrife (*Lythrum salicaria*), a semi aquatic plant, is invading many Island wetlands.

Aquatic invaders, such as oyster thief (*Codium fragile*), establish populations in nearshore waters and can displace native plants/aquatic species. Oyster thief is a green algae native to Japan and is now found in the waters of PEI. Oyster thief displaces native kelp, which is a preferred habitat for sea urchins and lobster. Oyster thief smothers mussels and oysters, preventing them from opening their shells to filter feed. These weakened shellfish are easy targets for predators. As well, oyster thief can lift shellfish off their beds and float away with them.

The control of nutrient and sediment inputs to surface waters generally provides the best

long-term protection against excessive aquatic plant growth. When heavy plant growth already exists, limited aquatic plant control for recreational purposes may be appropriate.

Every effort should be made to identify and document the location of important fish habitat in the vicinity of areas proposed for treatment. Particular attention should be paid to the quality and quantity of spawning, nursery and feeding areas which could be affected by the treatment. Special consideration should also be given to habitat types provided by plant species believed to be in limited supply in the water body in question. For example, wetland areas should be identified and their value as fish and wildlife habitat documented.

### **Techniques for Aquatic Vegetation Control**

There are various types of methods used to control or manage aquatic plants including:

1. Drawdown – is the lowering of the water level of an impoundment. This activity is described in more detail in the *Impoundments* section. The drawdown of the impoundment and freezing of the plants can be an efficient method of controlling aquatic vegetation.
2. Manual Harvesting – The removal of aquatic plants by hand-pulling, hand raking, hand cutting and other labour intensive manual techniques.
3. Mechanical harvesting – The use of heavy equipment or other machinery is generally not permitted (except in a drawdown situation) due to the potential disturbance of the watercourse.
4. Biological or chemical control – The use of biological and/or chemical controls must be reviewed and approved by the *Prince Edward Island Department of Agriculture and Fisheries*. Herbicides are used elsewhere but are not permitted for use in fish bearing waters. On Prince Edward Island, three species of beetles are licensed to control the spread of purple loosestrife. The three beetles are *Hylobius transerovittatus* (a root weevil), *Galerucella*

*calmariensis* and *G. pussilla* (both defoliators). The introduction of exotic herbivorous fish (i.e., the grass carp *Ctenopharyngodon idella*) is not acceptable.

### **Application Requirements**

In addition to the standard information on the application form, a copy of the following must be provided:

1. A plan, profile and cross sectional drawing clearly indicating:
  - a. The area where the plants will be removed from; and
  - b. The area where aquatic vegetation will be disposed of in an approved manner.
2. A complete description of the method (i.e., drawdown, manual /mechanical harvesting, biological/chemical control) to be used.

**Failure to submit required documents could result in the return of the application without it being processed.**

### **Other Government Agencies Involved**

*Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act **no person shall** carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery. Authorization, if required, must be obtained before the activity can occur.

### **Guidelines**

Landowner permission must be obtained.

All cut and uprooted vegetation must be removed from the water to maintain water quality and to avoid interference with other water users. The vegetation must be disposed of in a provincially approved manner.

Leave all rocks and woody material in the area

that is being cleared of aquatic vegetation, unless they are obstructing navigation.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall).

Removal activities may not be permitted in marine protected areas (e.g., Basin Head) or in areas where threatened or endangered species, or species of special concern, have been identified.

Vegetation must not be removed from the banks of the watercourse.

Prior to and after carrying out this activity wash boat, anchor, trailer and other equipment with fresh water or spray with undiluted vinegar. Let equipment dry completely before going to a new site.

Report sightings of invasive species to the *Prince Edward Island Department of Agriculture and Fisheries*, or to *Fisheries and Oceans Canada*.

### For Government Purposes

**Drawdown** - Applications for these activities require Regulatory and Advisory Review

**Manual Harvesting** - Applications for these activities require Regulatory Review

**Mechanical Harvesting** - Applications for these activities require Regulatory and Advisory Review

**Biological and Chemical Control** - Applications for these activities must be directed to the *PEI Department of Agriculture and Fisheries*

### **Purpose**

The purpose of this activity is to provide or improve tidal flushing and water exchange on coastal ponds.

### **Definition**

The removal of accumulated beach sediments from the outflow channel of coastal ponds, or remove impediments to flow such as drift wood or other organic material in order to improve/ facilitate water exchange or prevent damage (e.g., flooding) to surrounding public infrastructure.

### **Environmental Protection Objectives**

- To provide fish passage.
- To improve water exchange and quality.
- To minimize flooding upstream of the pond.
- To minimize impacts to the surrounding ecosystems and other wildlife species.

### **Planning Considerations**

Barrier beach ponds are natural water bodies and the management activities should be carefully considered. Timing of year will influence management or maintenance options. A normal cycle in the pond outlet includes closure of the run at low water and opening of the run through autumn/winter storms as well as the spring freshet.

Each pond is a unique and diverse ecosystem and the opportunity to improve flushing and water exchange differ in each situation. In addition, the frequency of sediment accumulation and volume of material at the pond outlet must be considered when planning management or maintenance options to barrier beach ponds. A large volume of material and frequency of sediment accumulation may eliminate any practical options for pond management and the best option for management may be no intervention.

Removal of accumulated sediments from a pond outlet will have an impact on water levels in the pond thereby causing significant impacts to the pond ecosystem. This fluctuation in water level can impact nesting waterfowl species and alter the vegetative composition of the pond. For example, some rare plant (e.g., annual salt marsh aster) and bird (e.g., piping plover) species are restricted to a narrow band of habitat along the run or around the outlet.

The removal of accumulated sediments from the outlet of a barrier beach pond should only be carried out when the benefits of the removal exceed the cumulative effects of the associated environmental impacts.

The excavation of sediments from a pond outlet will typically involve the use of heavy equipment/motor vehicles. Equipment access options must be considered where impacts to wetlands, sand dunes or other coastal environments are minimal.

The deposition of excavated sediment must also be located in an area where it will not have detrimental impacts to nearby coastal environments.

### **Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. the rationale for the proposed activity;
2. a plan, profile, and drawing of the existing and proposed channel;
3. a description of the proposed equipment and method;
4. the proposed access route to the excavation site (including permission of landowners);
5. how the removed material will be disposed of (methods and sites).

**Failure to submit required documents could result in the return of the application without it being processed.**

**Guidelines**

Work must be conducted in a manner that will not result in any disturbance to adjacent areas; either from the placement of excavated materials or by access to the site by heavy equipment/motor vehicles.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service machinery and store fuel and other materials for the machinery away from the water to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.

**For Government Purposes**

Applications for these activities require Regulatory Review.

**Purpose**

The purpose of this activity is to create a stable beach area resistant to hydraulic forces from the watercourse or wetland and erosive forces of upland runoff.

**Generally the creation of new beaches is not permitted on Prince Edward Island.**

**Definition**

Beach construction is the addition of clean sand and gravel material to the bank and land adjacent to a watercourse or wetland to create a beach for recreational purposes.

**Environmental Protection**

**Objective**

- To preserve the fish habitat and aquatic vegetation in the shallow waters of estuaries, salt marshes and rivers.

**Planning Considerations**

Attempts at construction of a sand beach where none exists naturally are unlikely to succeed. In many cases, yearly replenishment of sand would be necessary to sustain the beach area and permission to do so would not be granted. Sand will not stay in place on a solid rock shoreline with heavy wave action. Areas with high concentrations of organics in the substrate will not be able to support the addition of sand either, because organics will eventually displace or cover the beach area.

Concerns with beach construction may include the destruction or degradation of feeding, spawning, nursery, or rearing areas for finfish, shellfish and other aquatic species as a result of influxes of sand into the shallow and outlying areas. Beach construction can result in negative impacts on the near shore areas of estuaries, coastal areas and rivers (i.e., intertidal zones).

**Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. the rationale for the project;

2. the location of the project (above or below the high water mark);
3. fully dimensioned sketches of a plan and profile view of the proposed beach;
4. a detailed description of the existing vegetation;
5. a description of known species of finfish, shellfish and/or wildlife which may utilize/inhabit the intertidal zone for lifecycle stages;
6. timing and method of construction; and
7. the type of material (sand, gravel) to be used.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Other Government Agencies Involved**

*Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.

**Guidelines**

Landowner permission must be obtained.

The material added to a beach must be clean, uncontaminated coarse sand or fine gravel.

No material may be excavated from the watercourse.

Work must be conducted in a manner so as not to result in any siltation or disturbance to adjacent areas.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall).

**For Government Purposes**

Applications for this activity require Regulatory and Advisory Review.

### **Purpose**

The purpose of this activity is to remove or breach a beaver dam in order to protect, maintain or construct infrastructure or to avoid the flooding of private and public land without negatively impacting the watercourse, wetland or current aquatic resources and users.

### **Definition**

The removal of natural water retaining structures created by beavers and typically constructed of wood, organic matter, mud, gravel and rocks.

### **Environmental Protection Objectives**

- To minimize impacts on infrastructure and personal property.
- To minimize impacts on aquatic and wildlife habitat and restore fish passage.
- To minimize impacts to downstream fishing and aquaculture operations.
- To minimize the movement of sediment downstream.
- To control the release of large quantities of water.
- To minimize impacts to water quality.

### **Planning Considerations**

Beavers are managed not only for their fur, but more importantly as wetland developers. Beavers and beaver dams are protected under the Prince Edward Island Wildlife Conservation Act.

The flooding of areas due to beaver dam construction and the respective back-flooding that occurs can provide valuable open-water habitat for the creation and enhancement of wetlands. They can also provide pool habitat for fish.

The open-water and the removal of shade on the watercourse can also create elevated water temperatures during the summer months which may decrease fish habitat

quality for cold-water species of fish. The dam structure in some instances may also hinder or eliminate fish passage due to the height of the dam and lack of concentrated water flows.

Property damage may be caused by the blocking of watercourse crossings structures which results in the flooding and erosion of roadways. The flooding of properties can have a negative effect on landscaping, land use and infrastructures such as septic systems, wells and basements.

Non-mechanical (by hand) removal of beaver dams is the preferred method. This method minimizes disturbances to the bed and banks of the watercourse and should be considered wherever possible.

Beaver dam removals will be carried out under the auspices of the "Prince Edward Island Beaver Policy" (Appendix I). Beaver dam removals will not be permitted under normal conditions where:

- no property damage is demonstrated
- the dam has established a wetland that is being utilized by breeding waterfowl. Removal may be permitted after the broods have left.

### **Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. timing of the activity,
2. method and machinery to be used,
3. size and location of impoundment,
4. status of beaver activity at the site (i.e., active or inactive dam),
5. detailed mitigation plan for release of water and containment of sediments,
6. description of downstream and upstream resources and users.



**Failure to submit required documents could result in the return of the application without it being processed.**

**Other Government Agencies Involved**

1. *Prince Edward Island Department of Communities, Land and Environment:* A beaver dam cannot be removed until the Department, through the Prince Edward Island nuisance animal standard permitting process and provincial beaver policy, has reviewed and approved the proposal.
2. To verify land ownership rights, the original deeds should be checked with the *PEI Department of Finance*. In coastal areas most lands below the high water mark are owned by the *Province of Prince Edward Island*.
3. *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.

**Guidelines**

The beaver must be removed prior to undertaking the removal of the beaver dam. This removal must be undertaken in compliance with all Acts and Regulations. A Nuisance Wildlife Control Operator or a licensed trapper should be contacted to undertake the removal.

Non-mechanical (by hand) removal of beaver dams is the preferred method.

Beaver dam removal is preferably not done in the winter when the pond is frozen. This may result in losses of habitat for over-wintering fish in the upstream pond.

The removal of the beaver dam will be limited to the debris of the structure. Original watercourse bed and bank material and/or the beaver lodge(s) may not be removed or disturbed.

For non-emergency beaver dam removal, time the use of machinery to protect aquatic (e.g., spawning fish, incubating eggs, etc.) and wildlife (e.g., muskrats, mink, etc.) species. It is preferable that removal is done during low flow conditions.

Install effective sediment and erosion control measures before starting work to prevent the entry of sediment into the watercourse. Inspect them regularly during the course of construction to ensure they are functioning properly. Make all necessary repairs if any damage is discovered.

The removal of vegetation may be necessary to access and remove the beaver dam. This removal should be kept to a minimum. Vegetate any disturbed areas by seeding and planting trees, shrubs or grasses and cover vegetated areas with mulch to prevent soil erosion and to help seeds germinate.

Operate machinery in a manner that minimizes disturbance to the banks and bed of the watercourse.

If heavy equipment is to be used, excavators and backhoes are recommended for the removal of beaver dams due to their ability to remove only the debris without disturbing the streambed or banks. They also work well from the road surface, which would be the most preferred method.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service machinery and store fuel and other materials for the machinery away from the water to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.

The impounded water should be released over an extended period so as to minimize silt flushing from the impounded area and reduce channel erosion downstream due to the increased discharge and water velocities. As the water levels drop in the upstream pond, increase the size of the opening to drain the pond to the desired level. The width of the breach opening of the beaver dam should not exceed the width of the original stream channel to prevent bank erosion and flooding of adjacent properties.

Be prepared to relocate any fish that become trapped in isolated pools or stranded in newly flooded areas to the main channel of the watercourse.

Beaver dam management devices should be used in order to discourage the building of beaver dams. Such devices must not obstruct fish passage. Devices and techniques that maintain water flows and fish passage through the dam should be considered.

Debris removed from the beaver dam must be placed above the high water mark or disposed of in such a way so that it does not re-enter the stream.

**For Government Purposes**

Applications for this activity require Regulatory Review. Depending on the scope of the project the application may also require Advisory Review.

### **Purpose**

The purpose of this activity is to provide a safe, sturdy, low maintenance and environmentally sound crossing structure with a waterway opening large enough to pass peak flows and prevent ice or debris jams; or to remove an existing bridge without compromising the watercourse or aquatic habitats.

### **Definition**

Bridge construction or replacement is the building of a structure over a watercourse, the deck of which forms a link in the road or footpath. Bridges can be single (clear) or multi span.

Bridge maintenance includes work on the components of a bridge such as wingwall repair, deck replacement or guardrail installations/replacements.

Bridge removal includes the disassembling of the single or multi-span bridge and its components (e.g., wingwalls, stringers, piers, piles and abutments).

### **Environmental Protection Objectives**

- To maintain free, unobstructed fish passage through the crossing providing fish with migration paths for spawning, rearing, feeding and wintering.
- To prevent sedimentation of the watercourse or adjacent wetland as a result of construction and installation of the structure.
- To prevent erosion of the banks and bed as a result of construction and installation of the structure.
- To prevent deleterious substances from entering the watercourse.

### **Planning Considerations**

Bridges must be constructed from durable materials providing safe access across the watercourse. If properly designed and constructed they offer few risks of failure

and little interruption of natural hydraulic characteristics.

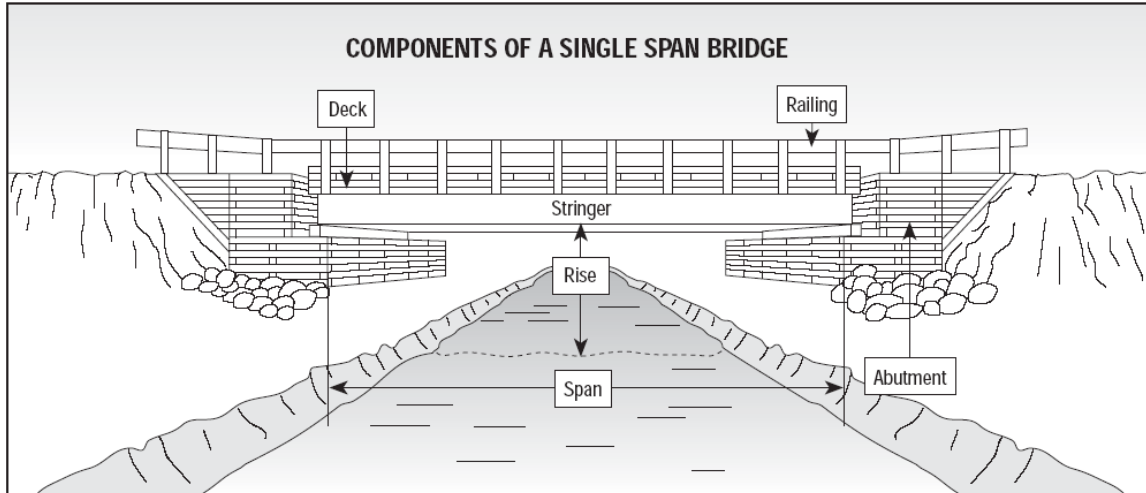
Bridges are preferred as watercourse crossings from an environmental and fisheries standpoint when compared with culverts for the following reasons:

1. Bridges retain the natural watercourse bed, thereby allowing uninhibited movement of bedload material.
2. Bridges help preserve the natural cross sectional area of the channel therefore maintaining the flow regime.
3. Fish pass more freely through bridge crossings; they rarely provide a barrier to migration.
4. Bridge construction requires less instream activity, therefore less environmental impact.

Because the potential for significant environmental impact caused by culvert installation is great, bridges are generally recommended for major crossings.

The main components of a single span bridge include abutments, stringers, deck and railings.

- **Abutments** are the foundation of the bridge, supporting the structure and protecting the banks of the watercourse or wetland from the pressure of the traffic using the bridge.
- **Stringers** are the pieces spanning the abutments forming a connection between them, and used to support the deck of the bridge.
- The **deck** material usually consists of timbers placed on top and perpendicular to the stringers; it constitutes the floor of the bridge.
- **Railings** are often placed at the sides of the bridge to be used as a guide for traffic.



The main components of a multi span bridge are the same as the single span bridge with the addition of piers. **Piers** are the intermediate supports between abutments on bridges of more than one span.

Because clear-span bridges completely cross a watercourse without altering the stream bed or bank there should be no alteration of the natural channel processes. However, given that construction may impact the watercourse or aquatic vegetation, interdepartmental review required prior to the construction or replacement of clear/single span bridges will vary with the size and location of the structure.

Building multi-span bridges is a major undertaking and the alteration to the watercourse or wetland can vary greatly depending on the size and number of piers in the structure. All proposals for multi-span bridges require interdepartmental consultation and detailed project review.

Watercourse or wetland activity permits for bridges generally dictate the minimum rise and span of the structure. Permits are sometimes issued specifying the minimum waterway opening only. In these instances, the rise and span must be planned according to existing conditions at the crossing site. Several factors must be considered:

- The design must take into account the amount of ice that may pass under the bridge to ensure that the structure will not become blocked;
- The rise must provide sufficient clearance to keep the roadbed free from flowing waters which may overtop the structure during periods of high flow endangering the road and the aquatic habitat; and
- The rise must also provide for sufficient clearance for navigation.

Route selection for access roads should be designed to minimize the number of watercourse or wetland crossings. For public access roads, interchanges and merging lanes should be located as far as possible from watercourse or wetlands. The length of the bridge should also be minimized by planning to construct them at right angles to the watercourse or wetland.

Bridge construction should be avoided at any site where the banks are unstable or eroding, or where the watercourse meanders. Sites where the soils are unstable or erodible (fine sand, silt, or clay) should also be avoided.

The recommended capacity for bridges in Prince Edward Island is based on a 100 year return period flow, which means that the waterway opening should be large enough to pass a peak flow or flood which

has a one per cent (1%) chance of occurring in any given year. Peak flow is influenced by the drainage area, rainfall intensity, type of soil and ground cover and land use.

Bridges should be designed with a hydraulic capacity large enough to pass a peak flow with a 100 year return period. The hydraulic capacity of the bridge is dictated by the waterway opening which is a product of the average rise and span of the structure. The structures should be designed to ensure that the maximum design water velocity is 1.8 metres per second in a one in 100 year discharge event.

When an application for a bridge is reviewed by the *Prince Edward Island Department of Communities, Land and Environment*, a design flow is calculated which represents the actual peak flow expected at the location of the crossing. The design flow is based on the drainage area with consideration given to factors such as precipitation and physiography. The waterway opening proposed in the application must accommodate the design flow. In some circumstances, historic data from hydrometric stations located throughout the province is used to estimate the peak flow.

When estimating the waterway opening necessary for the crossing site without the benefit of hydrometric data or the size of the drainage basin, the waterway opening required to pass the peak flow can be roughly estimated using indications of flood levels which can be observed on the banks of the watercourse such as ice scour marks or changes in vegetation. The proposed size will be evaluated when the application for an alteration permit is processed.

To minimize environmental impacts caused by erosion and sedimentation the length of the construction period must be kept to a minimum and planned so as not to coincide with periods of increased sensitivity for fish, such as spawning and egg incubation times.

There will be variation in specific conditions for different areas throughout the province depending on the number and species of fish/shellfish involved. Generally, the construction period is best planned to take

place during the low flow period recommended for all watercourse or wetland activities which is between June 1st and September 30th, every year. The reasons for this are listed below:

1. There will be less impact on fish activities during this time frame.
2. It is easier to isolate low flows in order to work in isolation of stream flow (in the dry). Diverting high flows could lead to flooding and the introduction of sediment into the watercourse or wetland.
3. There will be adequate warm weather after this period to establish vegetation on the disturbed portions of the construction site.
4. It is easier to move and stabilize soil during this period. Soils are generally either frozen or water saturated at other times of the year making them more difficult to move.

Special consideration must also be given to shellfish (commercial, aquaculture and recreational) areas and the timing of construction must take into account spatfall windows and other sensitive characteristics of the resource, which may require adjustments to timing of the project.

**Sediment Control Considerations**

Excessive quantities of sediment entering the watercourse can severely impact the aquatic environment. Fine particles settling on the bed of the watercourse can smother the organisms living there and destroy fish spawning and rearing habitat. Large quantities of sediment may also affect the hydraulic capacity of a watercourse by reducing the cross sectional area and thereby increasing the potential for flooding.

Construction plans must take into account sediment control during all phases of the alteration and continue until all disturbed ground has been permanently stabilized to ensure that suspended soil particles in surface runoff water are trapped before being discharged into the aquatic environment. All in-stream work should be done in isolation of stream flow (in the dry)

to avoid introducing sediment into the watercourse. Cofferdams may be used to isolate the work area from the flowing water thus keeping the sediment out of the watercourse.

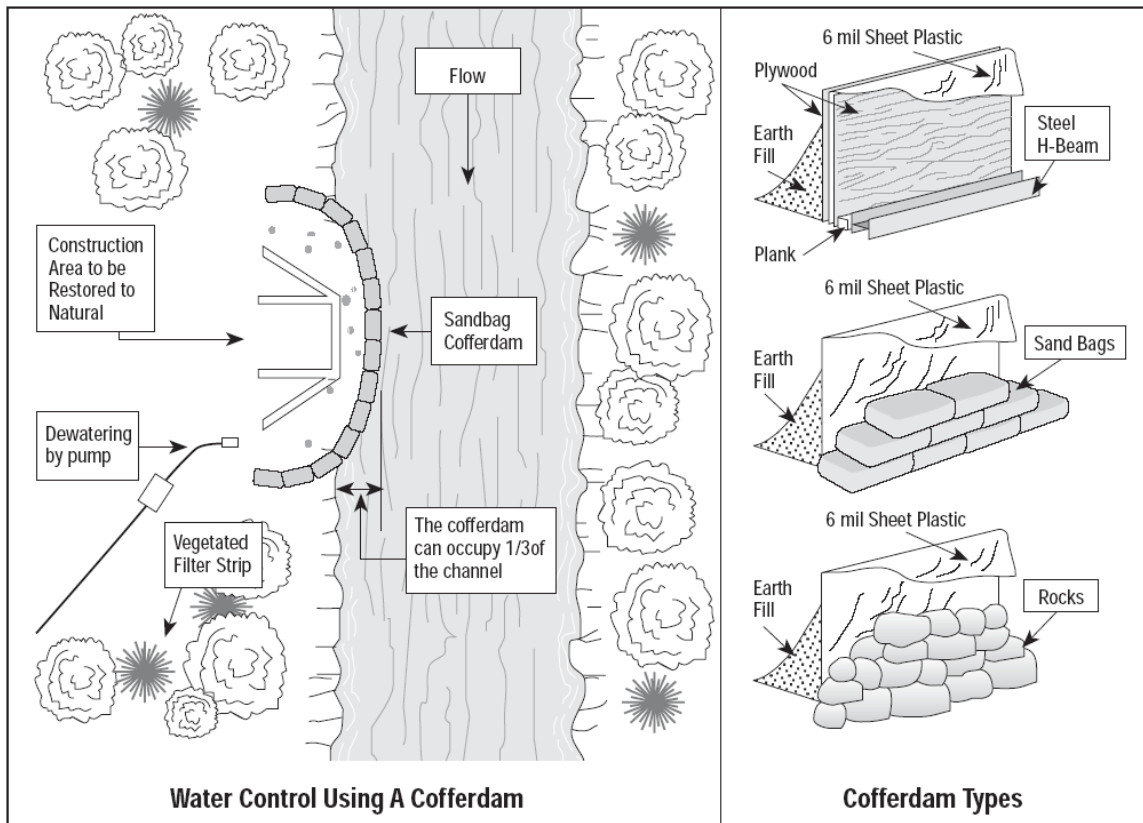
**Road Construction Considerations**

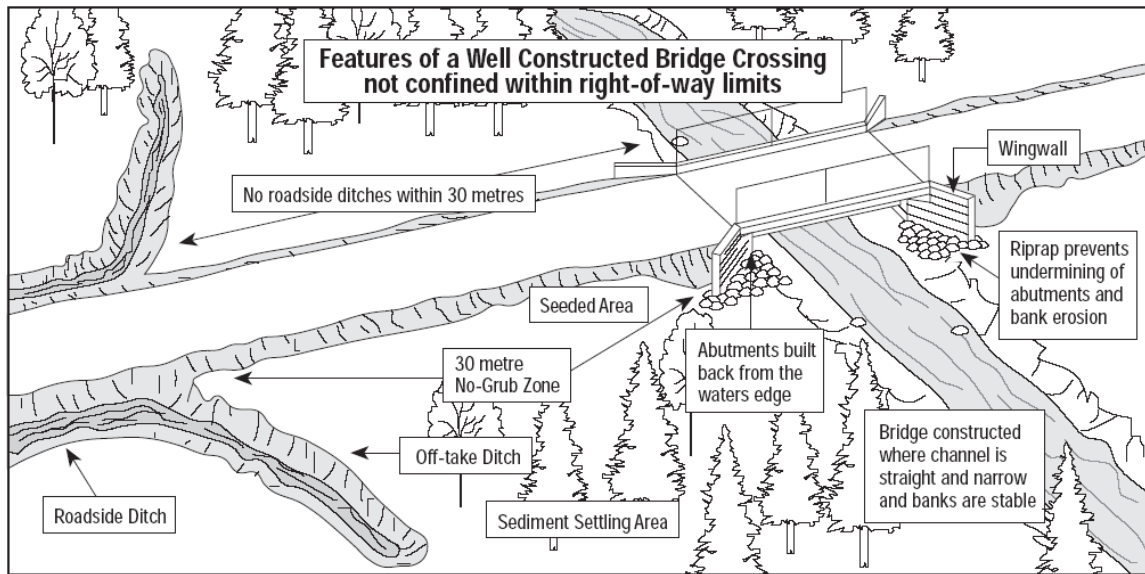
Clearing and grubbing for the road right of way should be kept to a minimum as vegetation acts as a natural filter, keeping fine particles from entering the watercourse or wetland.

Once the road has been constructed, proper drainage must be maintained by using roadside ditches and cross drainage culverts to prevent excess precipitation from washing across the road and introducing sediment into the watercourse or wetland. A well drained road will reduce the amount of sediment entering the watercourse or wetland and be capable of supporting heavier loads as well.

Off-take ditches are water control structures that should be directed towards a vegetated area to filter out the sediment before it enters the watercourse or adjacent wetland. If the slope of the roadside ditch is steep, any sediment laden water should be routed through a settling pond or sediment trap to remove particles before the water enters the watercourse or adjacent wetland.

If a road is being constructed adjacent to a watercourse or wetland, sediment barriers should be placed between the roadway and the watercourse/wetland to intercept runoff. Many types of sediment barriers are available for use such as: silt fences (woven geotextile fabric), hay bales, mulch, or brush barriers (made up of logs, brush or slash debris). These barriers should be placed on and at the base of exposed upland surfaces, fill slopes, or any surface that might discharge sediment into the watercourse or adjacent wetland.





### Bridge Removal

The removal of bridges, similar to their installation, must take into account the timing of activities, water control measures, sediment control considerations and limiting the area of disturbance. When removing a collapsed bridge that has trapped and accumulated sediment, place sediment control devices in the watercourse before beginning the alteration. This will intercept sediment before it moves downstream and protect aquatic habitats.

All work should be conducted completely in isolation of water flow (in the dry). Two possible options to allow this are:

- divert the streamflow through a temporary plastic lined channel. The new channel must be designed (length, slope, etc.) to accommodate flows and prevent the movement of fines upstream of the obstruction.
- cofferdam the stream flow and pump the water around the site.

### Application Requirements

**Landowners are not required to submit the standard Watercourse, Wetland and Buffer Zone Activity Permit Application to the Department if using a Licensed**

**Contractor to carry out minor bridge repairs (repair/replacement of bridge decking and supports, erosion control/slope protection of abutments and grading of approach roads).**

**If the bridge repairs are more extensive than noted above and/or if the structure is new and/or if the work is not being carried out by a Licensed Contractor, landowners will need to acquire a permit from the Department.** In addition to the standard information required on the application form, the following must be included:

1. proposed size, shape and alignment including the rise and span;
2. plan, profile, and cross sectional drawings to scale;
3. proposed construction methods and materials for each component of the bridge;
4. for multi span bridges and clear span bridges allowing highway traffic, stamped engineer drawings will be required;
5. for bridge construction/repair/removal proposals with a potential to expose large areas of barren soil it is necessary



to prepare a surface water control plan to address each phase of the work.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Other Government Agencies Involved**

1. The approval of *Transport Canada* which administers the Navigable Waters Protection Act, must be obtained when a structure is to be placed in or across any navigable watercourse or wetland.
2. *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.

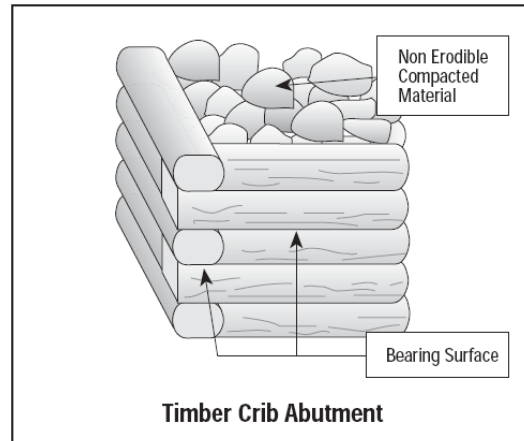
**Guidelines**

When building or repairing bridges use only cured and dried treated timber. Creosote timber is not permitted in the aquatic environment.

Bridge abutments should not constrict the width of the channel and must be parallel to the banks of the watercourse or wetland.

If the abutments are made from concrete, they should be pre-cast and air dried for a period of at least twenty one days before being placed in the water or; poured in place in isolation of stream flow (in the dry) and cured for at least one week prior to form removal.

The abutments must be founded on solid ground. If the foundation material is soft, it should be replaced with clean pit run gravel or rock.



The abutments should be set back from the wetted portion of the channel. All work necessary for abutment and pier construction must be carried out in isolation of stream flow (in the dry) using cofferdams to isolate the work areas from the flowing water.

At all times during the construction or removal phase at least two thirds of the channel cross section must remain open to maintain fish passage. Be prepared to relocate any fish that become trapped in isolated pools to the main channel of the watercourse.

It is important to minimize disturbances caused by the construction or removal phase and to stabilize the site without delay to prevent siltation of the watercourse.

Materials used in the construction of the crossing and the approaches should not be obtained within 15 metres of the watercourse.

Operate machinery on land (above the high water mark) or on the water (e.g., from a boat or barge) in a manner that minimizes disturbance to the banks or bed of the watercourse.

The width of the grubbed zone should be no more than the total width of the roadway, fill embankments and ditches.

Debris generated during the project must be prevented from entering the watercourse. If material enters the watercourse it must be



immediately removed and disposed of in a provincially approved manner.

Washing of equipment, concrete forms or machinery must not take place in or adjacent to the watercourse.

Creosote treated timbers must not be placed in the watercourse.

Standard techniques for sediment control, such as the use of temporary check dams and/or silt fences, must be employed to prevent surface runoff and the introduction of sediment directly into the watercourse or adjacent wetland.

Sediment barriers, such as silt fences or hay bales, must be placed along the toe of the slope of the fill material used to construct the approaches to the structures.

Vegetate all disturbed bank and riparian areas to prevent soil erosion and to help seeds germinate. If there is insufficient time (at least four weeks) in the growing season remaining for the seeds to germinate, the site should be stabilized (e.g., cover exposed areas with erosion control blankets to keep the soil in place and prevent erosion) and vegetated the following spring.

Grubbing cannot be carried out within the buffer zone except where necessary to remove stumps under the road bed and then not until construction of the crossing is ready to begin.

Stream crossing widths should be kept to a minimum.

The bridge should be designed so that the span does not constrict the flow of the water.

The bridge abutments should be aligned so that they do not direct the flow into the banks of the watercourse. Bank protection, in the form of rip rap, must be provided if bridge alignment results in deflection of flow against either bank.

Abutments and pier(s) should be set below the possible depth of scour.

Rip rap or wingwalls should be placed at both the upstream and downstream ends of the structure to help prevent erosion.

Excavated materials must not be allowed to enter the watercourse. Care must be taken during the placing and removal of the cofferdams to prevent cofferdam material from washing downstream.

Adequately seal drains and open joints before sweeping or washing to prevent materials and sediment-laden wash water from entering the watercourse.

Clean and remove debris and sediment from drainage devices and dispose of the material in a provincially approved manner.

Sweep decks, including curbs, sidewalks, medians and drainage devices to remove as much material as practical before washing.

Direct the wash-water past the ends of the bridge deck to a vegetated area to remove suspended solids, dissipate velocity and prevent sediment from entering the watercourse. If this cannot be achieved, use silt fences or other sediment and erosion control measures to prevent wash-water from entering the watercourse.

When extracting water from a watercourse, ensure the intakes of pumping hoses are equipped with an appropriate device to avoid entraining fish.

Remove paint or protective coatings in a manner that prevents any paints, paint flakes, primers, blasting abrasives, rust, solvents, degreasers or other waste materials from entering the watercourse.

Use measures such as barges or shrouding to trap and prevent blasting abrasives, protective coatings, rust and grease from entering the watercourse.

Contain paint flakes, abrasives and other waste materials for safe disposal.

Store, mix and transfer paints and solvents on land and not on the bridge to prevent these materials from entering the watercourse in the event of a spill.

Do not clean equipment in the watercourse or where the wash-water can enter the watercourse.

Limit the removal of materials to that which is necessary to protect piers and abutments.

When carrying out structural repairs and reinforcements, use barges or shrouding to trap/ prevent concrete and other bridge materials from entering the watercourse.

If rip-rap reinforcement or armouring is required to stabilize eroding areas around abutments, place large clean, angular rocks into the eroding area at a similar slope as the stream bank to maintain a uniform bank slope and natural stream alignment.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

**For Government Purposes**

**New and Replacement Bridges:** Applications for these activities require Regulatory and Advisory Review.

**Clear Span Bridges:** Applications for single clear span bridges that do not encroach inside the shoulder (bank) of the watercourse or wetland require a Regulatory Review. Depending on the scope of the project the application may also require Advisory Review.

**Maintenance:** Applications for these activities require Regulatory Review.

**Removal of Bridges:** Applications for the removal of bridges that do not encroach inside the shoulder (bank) of the watercourse or wetland require a Regulatory Review. Depending on the scope of the project the application may also require Advisory Review.

### **Purpose**

The purpose of this activity is to construct a reservoir of water connected to a watercourse with suitable water quality and volume to meet the needs of the intended use.

### **Definition**

A by-pass pond is connected to a watercourse by an inlet and an outlet pipe so as to be supplied with water for recreation, irrigation, fire fighting, fish rearing, or other purposes. The intended purpose of "Section 3.6 - By-pass Ponds" is not for sediment collection, this activity can be found in "Section 3.10 - Dredging".

### **Environmental Protection Objectives**

- To maintain adequate quantity and quality of water in the watercourse for the protection of aquatic habitat and provision of fish passage.
- To prevent the impact of construction from degrading aquatic habitat and water quality.

### **Planning Considerations**

Construction of by-pass ponds is often permitted adjacent to a watercourse. However, the by-pass pond and any excavated earthen material as a result of pond construction, must be located outside of the buffer zone.

Excavating a pond in the bed of a watercourse has the potential to generate and introduce excessive quantities of silt and other sediments in the watercourse. The excavation of by-pass ponds in the bed of a watercourse is not permitted.

Potential threats to water resources and aquatic habitat, as a result of this type of alteration, include:

- 1) Sedimentation of the watercourse due to improper construction techniques or upland surface runoff which lead to degradation of water quality and fish

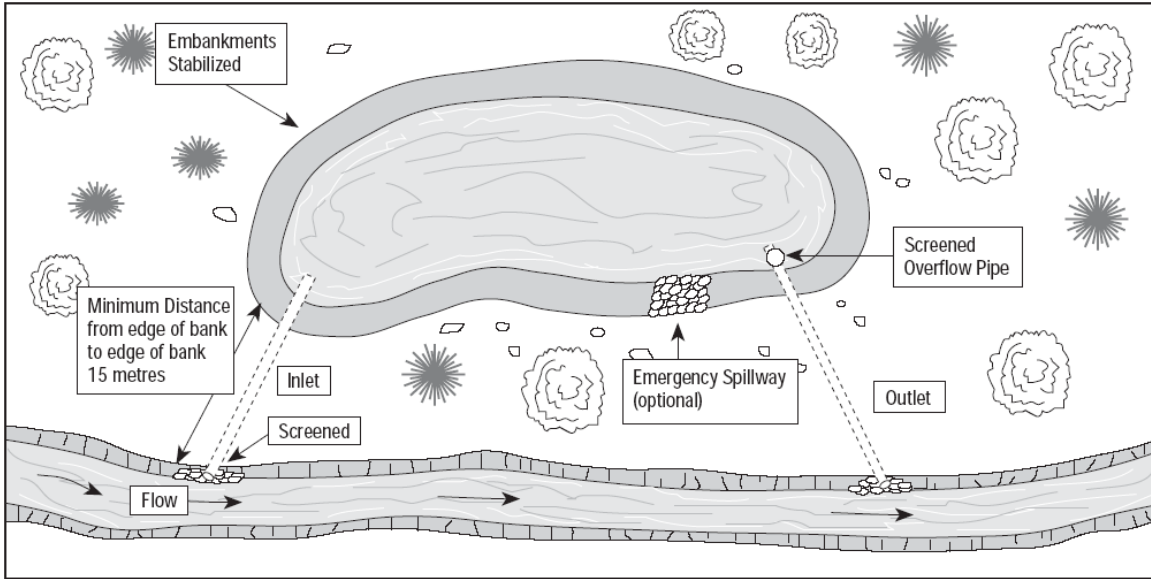
habitat.

- 2) Blockage of fish passage and degradation of fish habitat as a result from diminished flows or volumes of water in the watercourse.
- 3) Contamination of the watercourse by disease from organisms inhabiting the pond or pollutants which may discharge to the watercourse.
- 4) If the by-pass pond is being used for aquaculture purposes, escape of the cultured fish into the wild must be prevented.

Proper site selection and carefully designed construction techniques will help to minimize damage to the adjoining watercourse. **It is advisable to dig a number of test holes in the proposed pond basin to determine the nature of the underlying soils (i.e., permeability, presence of groundwater seeps, etc.)**

If a site with an impervious substrate is required, the selected site can be sealed by one of the following methods:

1. Compaction by heavy machinery is possible provided the substrate consists of well graded soils.
2. Addition of clay blankets to cover the entire pond area up to the normal high water mark. The blanket should consist of well graded, coarse grained material containing a minimum of 20% clay with minimum thickness of 30 centimeters.
3. Addition of bentonite is effective in soils with a high percentage of coarse grained particles. Bentonite, a colloidal clay, fills tiny voids in the soil and swells up to 20 times its original volume when wet.
4. Waterproof linings such as thin films of polyethylene or vinyl can be used to line the pond but must be carefully protected from mechanical damage.



Inlet and outlet structures must consist of screened pipes. Screens must be present to ensure that fish will not be exchanged between the pond and the watercourse which could lead to competition and the spread of disease. Screens must conform to the same specifications required for all water intake structures. (Refer to “Section 3.16 - Water Intake Structures”.) Ditches or trenches are not acceptable means of connecting the pond to the watercourse, because they can be a source of sediment and are difficult to screen.

The by-pass pond overflow structure should include an outlet pipe. In addition, an emergency spillway should be constructed in the embankment to handle excess runoff and prevent the pond from overflowing during periods of high flow. Emergency spillways are often constructed as a ‘back up’ to the overflow pipe in the event of overflowing. These consist of shallow broad-crested weirs excavated in the embankments of the pond discharging into a vegetated area away from the watercourse. The crest of the spillway must be lined with rip rap.

Where possible, by-pass ponds should be located in an area such that the water supply can be augmented by groundwater springs or surface runoff to decrease demands from the watercourse. The area draining into the pond should not include

potential sources of contaminated water, such as septic tanks, barns, or waste disposal areas.

During construction, sediment laden water will accumulate in the by-pass pond basin and must not be released into the watercourse. The “activation” of springs uncovered during construction should also be considered as large volumes of dirty water can arise in a short period. De-watering may be required during construction to reduce water volumes in the newly constructed basin.

Maintenance flow requirements in the watercourse will be imposed for the water intake structure. This can be achieved by limiting the diameter or by installing the inlet pipe. (Refer to “Section 3.16 - Water Intake Structures”.)

**Applicants should bear in mind that once a by-pass pond has been created, it falls under the definition of a watercourse, and subsequent alterations within 15 metres of the pond will require a permit under the provisions of the Environmental Protection Act.**

**Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

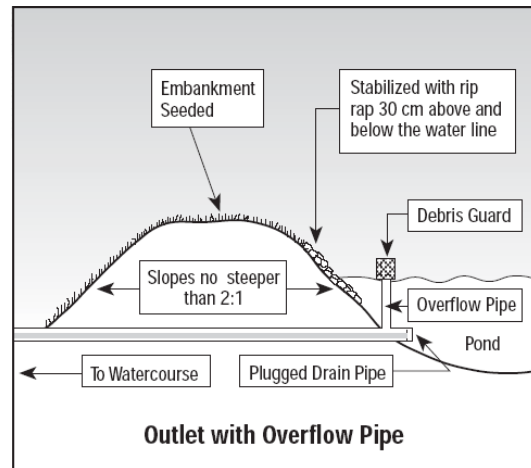
1. drawings to scale of the plan, profile, and cross sectional views,
2. all dimensions including length, width, depth of the pond,
3. distance from the watercourse,
4. detailed description of the inlet and outlet structures,
5. description of the proposed construction methods,
6. specifications of inlet and outlet screens, and
7. intake and outflow pipe elevations relative to the pond.

Trout, and Atlantic Salmon, under prescribed conditions. Applications for other species may be considered. *Fisheries and Oceans Canada* must be contacted before any fish are placed in the pond.

- b. Environmental Assessment Section of the *Prince Edward Island Department of Communities, Land and Environment* must be contacted with regards to water withdrawal, water quality of the discharge and the size of the operation.

**Other Government Agencies Involved**

- 1) *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.
- 2) The following agencies will need to be contacted if the plans include stocking the pond with fish:
  - a. An Introductions and Transfers Permit is required from the *Fisheries and Oceans Canada* Introductions and Transfers Committee. The purpose of the permit is to mitigate against ecological, biological or genetic factors between the stocked fish and those naturally inhabiting the natural watercourse. If issued, this permit grants the authority to culture fish. Currently, operations include the culture of Brook Trout, Rainbow



**Guidelines**

The site must be cleared of all vegetation, trees, roots, sod and loose topsoil and the spoil material disposed of where it cannot be returned to the watercourse.

The by-pass pond should be designed with a surface area which is small relative to the water supply in the adjacent watercourse.

The area draining into the by-pass pond must not include sources of pollution.

The side slopes of the by-pass pond should be no steeper than two horizontal to one vertical.

Standard techniques for sediment control, such as the use of silt fences, must be employed to prevent surface runoff from

disturbed areas from introducing sediment directly into the watercourse.

The excavation of the by-pass pond must be carried out in isolation of stream flow (in the dry).

The by-pass pond must be excavated prior to installing the inlet pipe(s).

The banks of the watercourse must not be disturbed prior to the installation of the intake and outlet structures. Bank disturbance must be kept to a minimum during these installations and immediately stabilized.

The ends of the inlet and outlet pipes adjoining the watercourse must be screened.

The inlet and outlet pipes should be oriented in a downstream direction to minimize the chance of blockage.

Rip rap must be placed around the ends of the inlet and outlet structures.

If the water is to be extracted from a by-pass pond (e.g., for irrigation purposes), the inlet should be closed during the extraction. When the inlet is re-opened, it should be done gradually to prevent rapid depletion of the flow in the watercourse and allow gradual refilling of the pond.

Any discharge from the by-pass pond(s) should pass through a sediment filtration system before entering the watercourse.

Immediately following construction, the embankments of the by-pass pond and any other exposed soil must be seeded and stabilized.

**For Government Purposes**

Applications for this activity require  
Regulatory and Advisory Review

**Purpose**

The purpose of this activity is to provide a safe, sturdy, low maintenance and environmentally sound crossing structure with a waterway opening large enough to pass peak flows, provide fish passage and prevent debris jams. This activity also includes the removal of culverts.

**Definition**

A **culvert** is a covered structure which conveys the flow in a watercourse under a road or footpath whereby the top of the cover material is graded to form the travel surface.

**Closed-bottom culverts** are round or rectangular conduits partially embedded in the watercourse with the sides and top encased in earth fill, designed to carry water under a travel surface.

**Open-bottom culverts** are semi-circle, rectangular or elliptical corrugated metal, concrete, wooden or plastic arches founded on footings, with the sides and top encased in earth fill, designed to carry water under a travel surface.

**Culvert maintenance** includes minor repairs to a culvert that do not change the invert. This would include replacing sections of the culvert or adding stabilization materials to protect the structure.

**Culvert lining** is the re-establishment of continuity in a culvert following degradation of its structural integrity. This would include replacing the bottom of corroded culverts with concrete or other material and inserting sleeves (e.g., steel or plastic liners).

This section does not include the removal of debris which is covered in "Section 3.4 - Beaver Dam Removal" or "Section 3.9 - De-brushing or Woody Debris Removal".

**Environmental Protection Objectives**

- To maintain free, unobstructed fish passage providing fish with migration

paths for spawning, rearing, feeding and over-wintering.

- To prevent sedimentation of the watercourse as a result of construction, installation or removal of the structure.
- To prevent erosion of the banks and streambed scour as a result of installation, operation or removal of the structure.

**Planning Considerations**

All crossings impact the environment to some degree; careful planning and design can minimize this impact. The culvert should be designed to avoid excessive ponding at the entrance which may cause property damage, accumulation of floating debris, culvert clogging, or detrimental upstream deposits of debris and alteration of fish habitat.

Consideration should be given to the appropriate crossing structure for your site. Bridge type structures have less impact on aquatic habitat than culverts and are the preferred method for crossing a watercourse mainly because they maintain the natural bank/bed.

Culverts are often used because they provide an efficient and economical means of crossing a watercourse. Several shapes of culverts are used including: circular, box, elliptical, and arch culvert. Box culverts are generally constructed of wood or concrete while the other types of culverts are most often made from steel, concrete, aluminum, fibreglass, and plastic. All culverts must be made of materials which are durable, weather resistant and strong enough to support the weight of the traffic which will be using the crossing. Single culverts are preferred over multiple culvert installations.

Installation of culverts may result in the alteration of the natural streambed and the natural flow regime which have negative impacts on aquatic habitat. The importance of properly sizing the culvert cannot be overemphasized. An undersized culvert results in increased water velocity within the structure, providing a barrier to fish passage

and scouring at the outlet. An oversized culvert may result in decreased water depth within the structure which may also act as a barrier to fish migration.

If properly designed, installed, and maintained at suitable locations, the resulting impact on aquatic habitat or threat to the environment posed by a culvert can be minimal. Any site where the banks are unstable or eroding, or the watercourse meanders, should be avoided.

Open-bottom culvert design which retains the natural features of the watercourse, such as width and slope, provide better protection for aquatic habitat than closed-bottom culverts. Due to the various footing support structures (i.e. plates, pads, timbers) available for use under a variety of field conditions, these structures can be installed quickly and generally do not infringe on the natural channel.

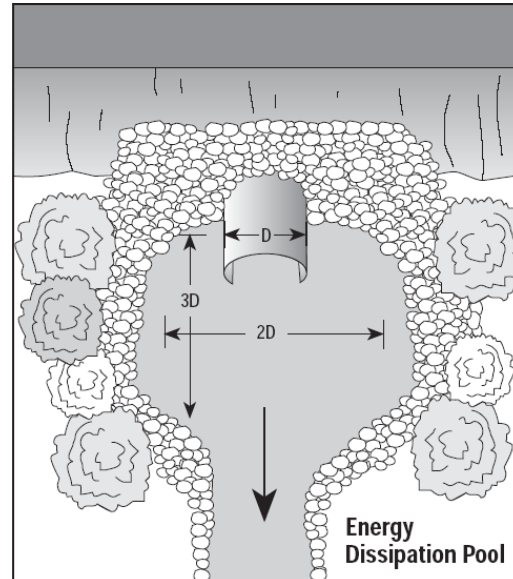
The capacity for culverts should be large enough to pass a peak flow or flood. Peak flow is influenced by drainage area, rainfall intensity, type of soil, ground cover and land use. Generally, a culvert designed for a 100 year return period flow provides adequate capacity.

When an application for a watercourse crossing is reviewed by the Prince Edward Island Department of Environment, Energy and Forestry, a design flow is calculated which represents the actual peak flow expected at the location of the crossing. The design flow is based on the drainage area upstream of the crossing site with consideration given to factors such as precipitation and physiography. The waterway opening proposed in the application must accommodate the design flow. In some circumstances, historic data from hydrometric stations located throughout the province is used to estimate the peak flow.

#### **Fish Passage Considerations**

Fish passage must be taken into account at all times during the installation of the culvert. Special measures to provide for fish passage through the crossing once the structure has been installed, such as fish

baffles or resting pools, may be required. In the case of a sloping bedrock bottom, an arch culvert on concrete footings may require additional fish passage measures.



A designed energy dissipation pool (plunge pool) may be a requirement in the proper construction of a closed-bottom culvert. The height of the tailwater must be sufficient to back flood water into the culvert opening. The width of the plunge pool should be two (2) times the diameter of the culvert opening; the length of the plunge pool should be three (3) times the diameter of the culvert opening and the depth should be a minimum of one metre.

The invert of a culvert must be buried a minimum of 0.2D (0.2 times the diameter of the culvert) to a maximum of 0.45m into the bed of the watercourse. This will facilitate the deposition of a layer of natural substrate and re-establish the natural habitat.

The ability of a fish to pass through a culvert is limited by the entrance conditions, water depth and velocity of flow, culvert length and slope and fish swimming ability. Fish swimming ability will vary depending on species, size, water quality, and hydraulic conditions. Fish migration may be obstructed if:



- a culvert is installed above the level of the natural streambed;
- scour lowers the streambed at the outlet of the culvert creating a waterfall effect (i.e., the resulting vertical drop could prevent fish from entering the culvert at the outlet);
- the water depth within the culvert is insufficient to allow fish passage through the structure; or
- the culvert is undersized or installed at an incorrect slope causing excessive water velocity (i.e., the water velocity exceeds the capability of the fish to pass through a culvert).

original bed of the river and the banks are not to be disturbed at all by the construction, including the construction of the footings, the temporary diversion or any other activities.

2. Culverts less than 20 metres in length, where the streambed slope gradient is less than 0.5 percent, and the downstream end is set 0.2D below streambed.

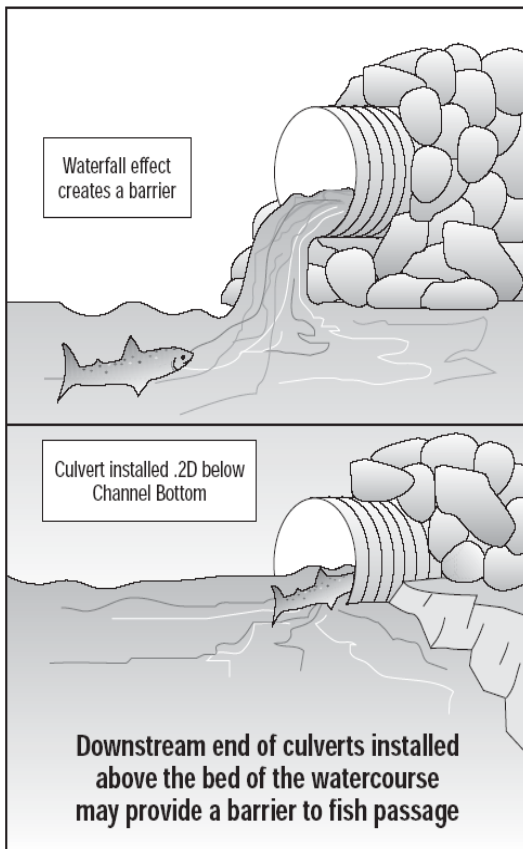
The streambed slope gradient is calculated using three simple measurements. First, on the downstream end of the culvert, the elevation of the streambed is taken at the downstream riffle (located approximately three times the culvert diameter downstream of the culvert outlet). This elevation is subtracted from the elevation of the streambed taken at the first riffle upstream of the culvert. The resulting value is divided by the distance (in metres) between these two upstream and downstream culvert elevations.

The invert of the upstream and downstream ends of the culvert structure must be set 0.2 times the diameter of the culvert. This allows for the natural infilling of the invert of the culvert to help simulate a natural streambed for utilization by fish. This is to ensure that the water depth inside the culvert will be at least equal to that in the watercourse during low flow conditions.

The downstream riffle is the first riffle located at least three times the culvert diameter downstream.

The requirement for baffles in closed-bottom culverts is based on stream slope and culvert slope. Typically, baffles are required if the stream slope exceeds 0.5 percent and the culvert is greater than 1.2 meters in diameter. Baffles require a notch to pass water during low flow periods to provide flow conditions that will permit fish passage.

The notch size and drop can be determined using the following table:

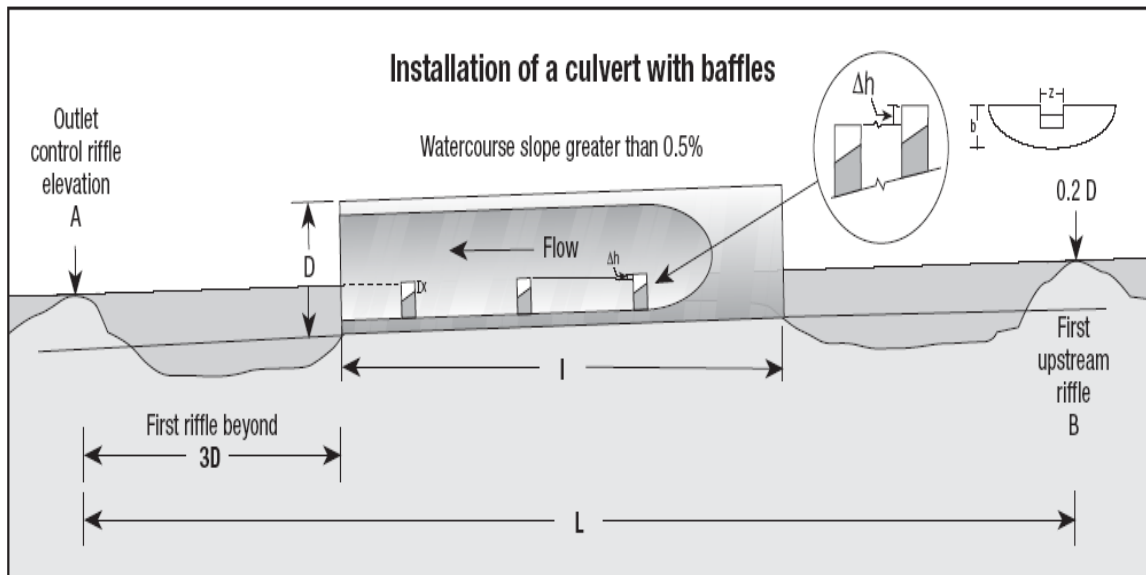


Some instances where fish passage provisions (e.g., baffles) may be omitted from culvert installations include:

1. An open bottom culvert with footings located outside the stream bank. The

**Notch size and maximum drop between baffles for Prince Edward Island**

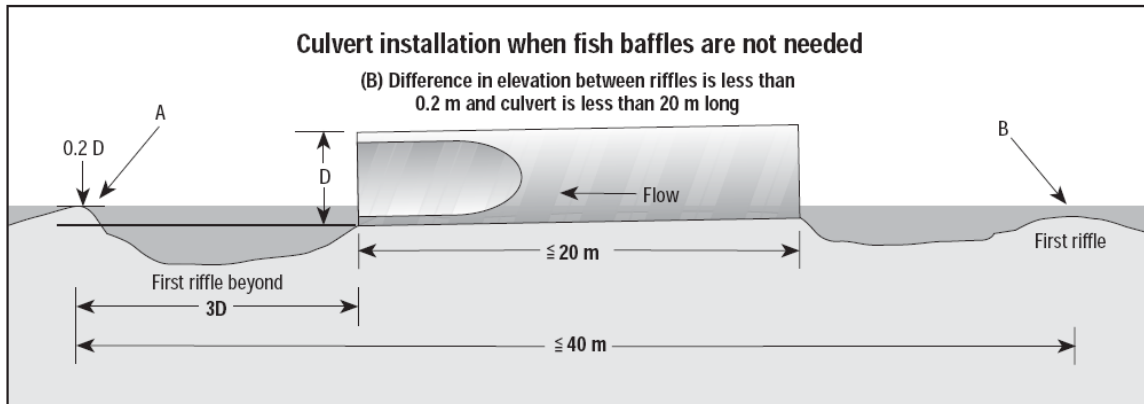
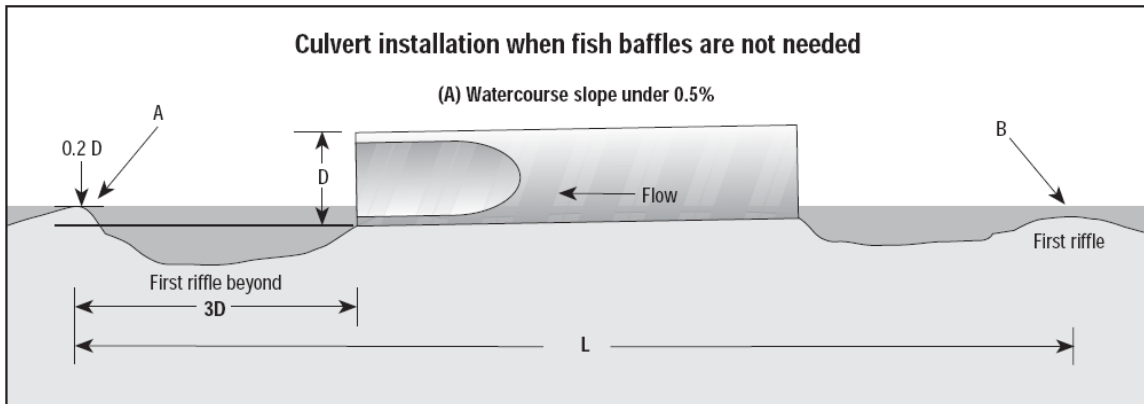
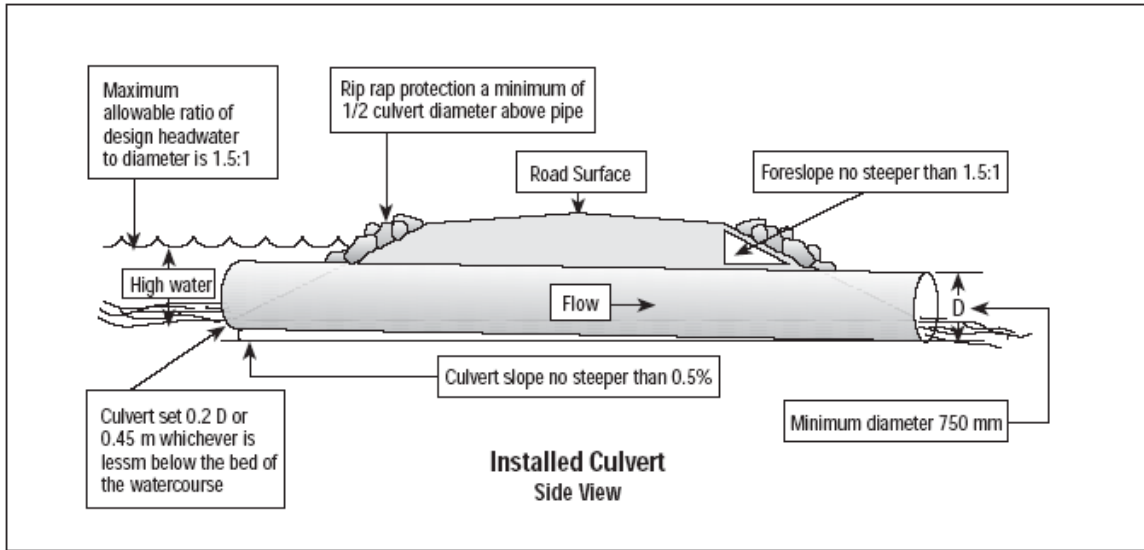
Watershed size	Notch width (z)cm	Notch depth (x)cm	Baffle height (b)cm	Max. drop between baffles ( $\Delta h$ )cm
Less than 2.5 km <sup>2</sup>	20	20	50	15
2.5 to 4 km <sup>2</sup>	30	20	50	15
4 to 6 km <sup>2</sup>	30	25	50	20
6 to 10 km <sup>2</sup>	50	25	50	20
10 to 15 km <sup>2</sup>	60	25	50	20
15 to 20 km <sup>2</sup>	75	25	50	20



The baffle furthest downstream is usually placed a minimum of 0.5 metres and a maximum of 1.25 metres from the downstream end of the structure. The top of this baffle is also to be at the same elevation at the outlet control point (riffle used to determine stream slope at 3D downstream or the outlet of the plunge pool if constructed). The upstream invert of the culvert can be at the same elevation as the upstream elevation control (riffle) or embedded up to 0.2D (max. 0.45m).

**Examples of Baffle Spacing**

Culvert slope (%)	Spacing I (m) 15cm drops	Spacing I (m) 20cm drops
2	7.5	10.0
3	5.0	6.7
4	3.8	5.0
5	3.0	4.0
6	2.5	3.3
7	2.1	2.9
8	1.9	2.5
9	1.7	2.2



Manipulation of watercourses for the purposes of restoring or enhancing fish passage requires careful and thorough planning. Understanding of the watercourse dynamics is required to ensure that an activity does not negatively impact fish

habitat, watercourse hydraulics and property.

There are a number of existing culverts which do not provide fish passage (i.e., hanging culverts) and are not likely to be

replaced because of location or size. In these cases, site specific measures may be attempted to rectify the situation.

These measures may include the installation of stone pools or low head dams to increase the water level at the outlet of the culvert. These options should only be installed and maintained until such time as the existing culvert can be replaced and the fish passage issues resolved.

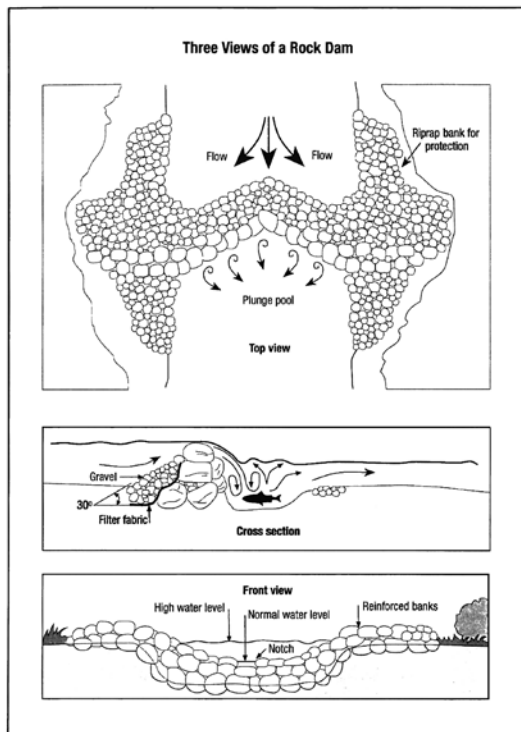
Careful planning is necessary when considering installing stone pools to enhance fish passage. The placement of pools and sizing of rock requires expert advice in order to prevent problems. Rock pool structures must be at least 3 m apart with no more than a 30 cm elevation difference between structures. Rock used to build the pools must be large enough to remain in place during high water events.

and shellfish, such as spawning, spatfall and egg incubation times.

There will be variation in specific conditions for different areas throughout the province depending on the number and species of fish/shellfish involved. Generally, the construction period is during the low flow period, between June 1st and September 30th, every year. The reasons for this are listed below:

1. There will be less impact on fish activities during this time frame.
2. It is easier to isolate low flows in order to work in isolation of stream flow (in the dry). Diverting high flows could lead to flooding and the introduction of sediment into the watercourse.
3. There will be suitable weather after this period to establish vegetation on the disturbed portions of the construction site.

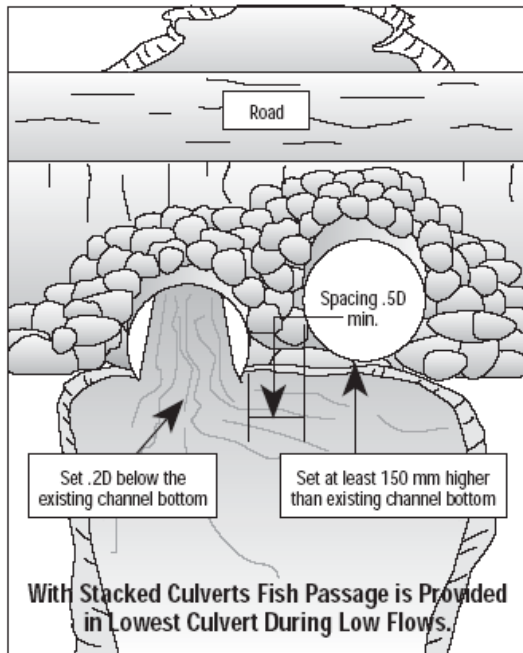
In close proximity to marine and estuarine environments, special consideration must also be given to shellfish (commercial, aquaculture and recreational) areas and the timing of construction must take into account sensitive characteristics of the resource (e.g., spawning season), which may require adjustments to timing of the project or aggressive mitigation to address concerns.



Conceptual drawings of a rock dam (Bastien-Daigle *et al.*, 1991).

**Timing of Activities**

To minimize environmental impacts caused by erosion and sedimentation the length of the construction period must be kept to a minimum and planned so as not to coincide with periods of increased sensitivity for fish



Construction plans must take into account sediment control during all phases of the alteration and continue until all disturbed ground has been permanently stabilized to ensure that suspended soil particles in surface runoff water are trapped before being discharged into the aquatic environment.

Leaving as much natural vegetation as possible, when clearing the site for the culvert installation, will dramatically reduce the amount of suspended sediment in surface runoff.

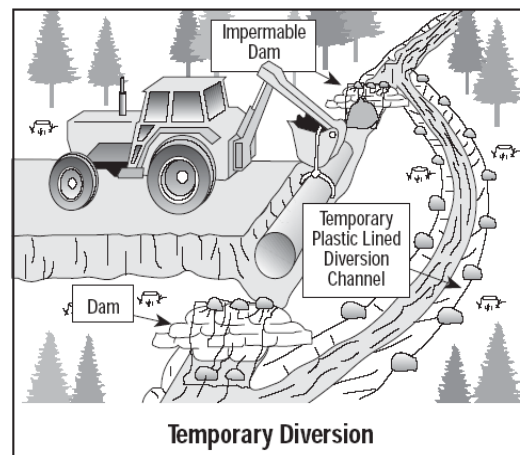
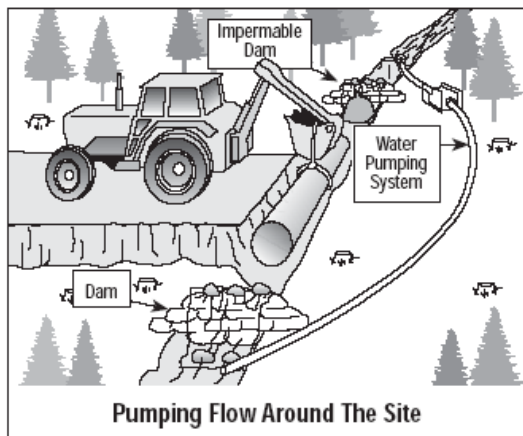
In order to prevent culvert failure (e.g., washout) it is important to stabilize the inlet and outlet with a clean, non-erodible material. Stabilization of the crossing may be accomplished with the placement of rip-rap at both ends of the structure immediately upon completion of the installation.

**Sediment Control Considerations**

All in-stream work should be done in isolation of stream flow (in the dry) to avoid introducing sediment into the watercourse. Use of cofferdams, temporary diversions, or pumping the flow around the site are techniques used to isolate the work area from the flowing water thereby preventing sedimentation of the watercourse during the entire construction phase.

**Water Control Measures**

Water control measures such as temporary diversions, sediment control ponds, off-take structures and filtration areas are essential tools in controlling surface water flow to minimize impacts on construction sites. Generally, work activities will be carried out in isolation from the stream flow (in the dry).



Excessive quantities of sediment entering the watercourse can severely impact the aquatic environment. Fine particles settling on the bed of the watercourse can smother aquatic organisms and destroy fish spawning and rearing habitat.

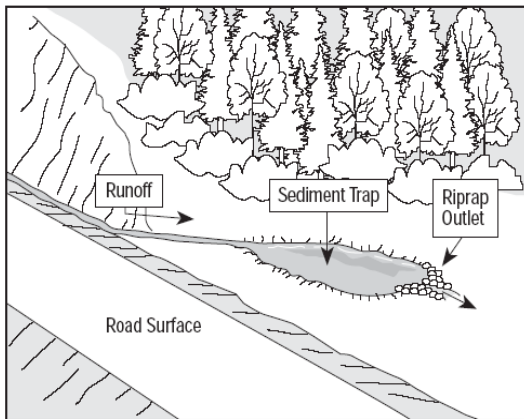
**Road Design Considerations**

Route selection for access roads should be designed to minimize the number of watercourse crossings. Roads are not to be constructed parallel to the watercourse within a buffer zone. The length of all

watercourse crossings should also be minimized by planning to construct them at right angles to the watercourse.

Clearing and grubbing for the road right of way should be kept to a minimum as vegetation acts as a natural filter, keeping fine particles from entering the watercourse.

Proper drainage must be maintained by using roadside ditches and cross drainage culverts to prevent excess surface water from washing across the road and introducing sediment into the watercourse. If the slope of the roadside ditch is steep, the sediment laden water should be routed through a settling pond or sediment trap to remove particles before the water enters the watercourse.

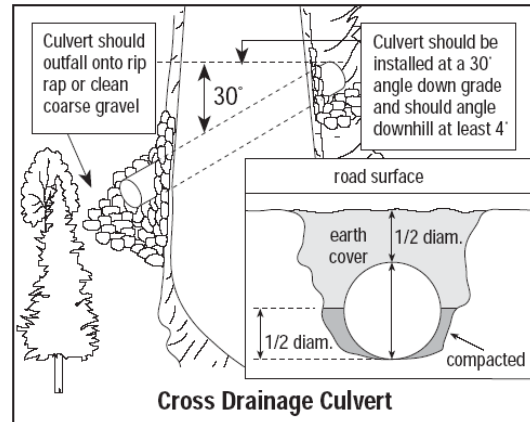


Cross drainage culverts should be placed across the road to dissipate excess runoff flows which have been channelized by the road construction. A recommended spacing for cross drainage culverts is as follows:

- 90 metres on gentle slopes (1% to 2%)
- 45 metres on moderate slopes (3% to 9%)
- 30 metres or less on steep slopes ( $\geq 10\%$ )

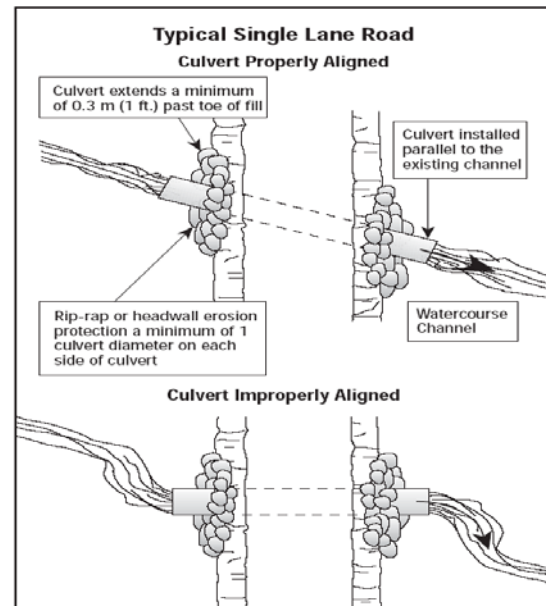
The minimum acceptable diameter for a cross drainage culvert is 300 millimetres (12 inches). The cross drainage culverts should be installed at a 30 degree angle downslope

and they should slope approximately four percent (4%).

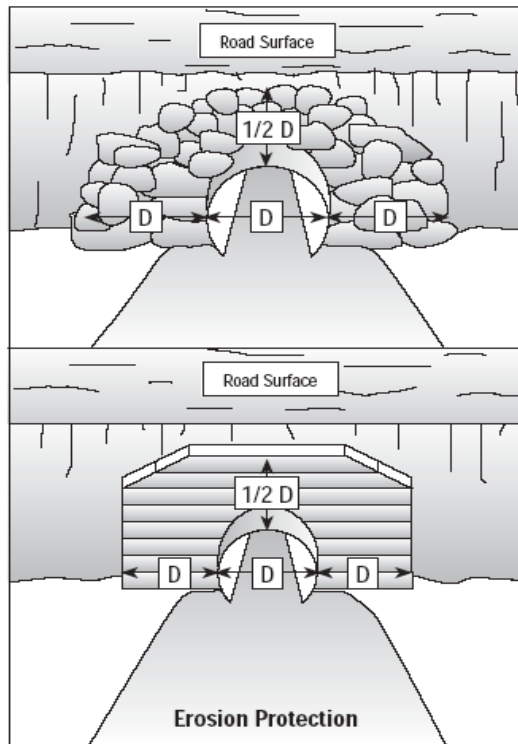


Off-take ditches should be directed towards a vegetated area to filter out the sediment before it enters the watercourse.

If a road is being constructed adjacent to a watercourse or wetland, sediment barriers should be placed between the roadway and the watercourse/wetland to intercept runoff. Many types of sediment barriers are available for use such as: silt fences, hay/straw bales, mulch, or brush barriers. Sediment barriers should be placed on (and at the base of) exposed upland surfaces, fill slopes, or any surface that might discharge sediment into the watercourse or wetland.







**Culvert Removal**

The removal of culverts, similar to the installation of these structures, must take into account the timing of activities, water control measures, sediment control considerations and limiting the area of disturbance. When removing a failed or collapsed culvert that has trapped and accumulated sediment, place sediment control devices in the watercourse before beginning the alteration. This will intercept sediment before it moves downstream and protect aquatic habitats.

To the extent possible, all work should be conducted in isolation of water flow (in the dry). Two possible options to allow this are:

- divert the streamflow through a temporary, stabilized channel (e.g., plastic lined, culvert). The new channel must be designed (length, slope, etc.) to accommodate flows and prevent the movement of fines upstream of the obstruction.
- cofferdam the streamflow and pump the water around the site.

**Application Requirements**

In addition to the standard information required on the application form, the following must be included:

1. a sketch showing the dimensions of culvert shape, length, slope, diameter and alignment;
2. a full project description including construction timing, sequence of events, methods and materials;
3. a profile of the bed of the watercourse of the crossing site extending five culvert diameters upstream and downstream provided no permanent channel re-alignment will occur. The requirement does not apply to open-bottom culverts.
4. the elevation of the watercourse bed in relation to the invert of the culvert.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Application Review Process**

This category is broken into two risk levels – low risk and high risk levels - based on the timing and techniques utilized. Both levels of risk require the applicant to submit an application to the permitting agency. However, the review for high risk activities will be more complex and require review by other government agencies.

In order to classify as a **low risk activity** the culvert must meet the following requirements:

- 1) Closed-bottom round culverts equal to or less than 1.2 m (48 inches) in diameter;
- 2) Closed-bottom box culverts with an opening less than 2.25m<sup>2</sup>;
- 3) Slope of the stream bed at the proposed culvert location is less than 0.5 percent;
- 4) Culvert length less than 20 metres;
- 5) Minimal alteration to the stream channel;

- 6) Shellfish habitat or resources are not in close proximity to the proposed work site;
- 7) Structure is installed, maintained or removed during the June 1 to September 30<sup>th</sup> period; and
- 8) All activities, installation, maintenance, and removal, are conducted in isolation of flowing water (in the dry).

A **high risk activity** may occur if one or more of the aforementioned items could not be met (e.g., slope of the streambed at the proposed culvert location is greater than 0.5 percent). High risk means that there is an increased potential of causing significant harm.

**Other Government Agencies Involved**

- 1. The approval of the *Transport Canada, Navigable Waters Protection Program* which administers the Navigable Waters Protection Act, must be obtained when any structure is to be placed in or across navigable waters.
- 2. *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada.
  - a. Under the Fisheries Act no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.
  - b. If the slope of the streambed at the proposed culvert location is greater than 0.5 percent, a detailed plan for fish passage must be provided to *Fisheries and Oceans Canada* prior to construction.

**Guidelines**

The stream banks and foundation must be solid and capable of supporting the structure and the loads traveling over them. A soft foundation should be replaced with clean, granular material to prevent sagging of the culvert.

Grubbing cannot be carried out within the buffer zone except where necessary to remove stumps under the road bed and then not until construction of the crossing is ready to begin. The width of the grubbed area may be no greater than the total width of the roadway, fill embankments and ditches.

Prior to the culvert installation, sediment control works must be installed to prevent sedimentation of the watercourse/wetland and be maintained, as required, until a vegetative cover is established. Sediment barriers, such as silt fences or hay bales, must be placed along the toe of the slope of the fill material used to construct the approaches to the structures. (See section 2.5 on Potential Environmental Impacts.)

All exposed soil must be seeded and/or stabilized immediately following completion of activities. Vegetate all disturbed bank and riparian areas to prevent soil erosion and to help seeds germinate. If there is insufficient time (at least four weeks) in the growing season remaining for the seeds to germinate, the site should be stabilized (e.g., cover exposed areas with erosion control blankets to keep the soil in place and prevent erosion) and vegetated the following spring.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall) if the work is to be carried out in the immediate vicinity.

The in-stream work should be carried out in isolation of stream flow (in the dry).

Route selection for access roads should be designed to minimize the number of watercourse crossings. Roads are not to be



constructed parallel to the watercourse within a buffer zone.

The length of all watercourse crossings should be minimized by constructing them at right angles to the watercourse. Stream crossing widths should be kept to a minimum.

Materials used in the erosion control activities must be clean, durable, non-toxic material.

The culverts must be long enough to provide an embankment slope that can be stabilized with rock, riprap or other non-erodible material.

Rip-rap must be placed at both ends of the culvert. It is recommended that rip-rap be placed to an elevation of at least one half of the culvert diameter above the top of the structure and a minimum of one culvert diameter on each side of the structure immediately upon completion of the installation.

The invert of the upstream and downstream ends of the culvert structure must be set 0.2 times the diameter of the culvert below the upstream and downstream riffle, respectively. This is to ensure that the water depth inside the culvert will be at least equal to that in the watercourse or wetland during low flow conditions.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

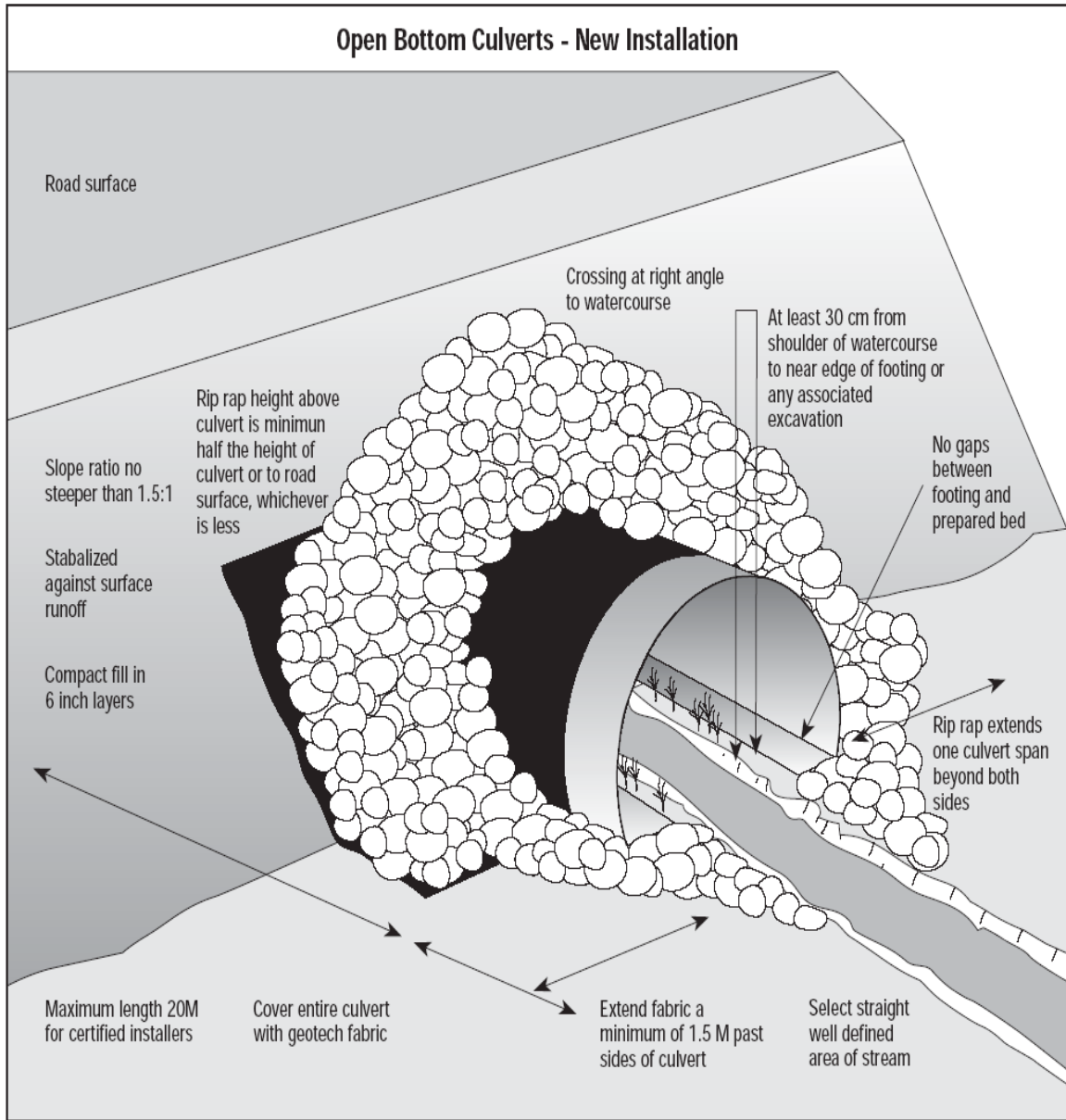
Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse or adjacent wetland to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

If installing an **open-bottom culvert**, it should be placed so that there are no voids between the ground and the footings. As required, fabric should be draped over areas where undermining is a concern.

If installing an **open-bottom culvert**, it should be installed over a reach of stream channel that is relatively straight and well defined.

If installing an **open-bottom culvert**, it must be placed on footings. These structures may be concrete, wood that is rot resistant such as hemlock and tamarack, steel, rigid plastic or other materials which provide adequate support for the structure. A gravel or rock pad should be prepared to fill in low areas and ensure uniform footing support.



For **replacement of closed-bottom culverts with open-bottom culverts**, rock may be used to enhance or re-construct the existing channel, to ensure stability in the channel, and to create fish habitat. The rock will not contain clay or fines that may be detrimental to the aquatic life present in the watercourse.

For culvert removal, the flow must be pumped around the site or diverted through a temporary, stabilized channel while the culvert is being removed. The banks must be completely stabilized to prevent sedimentation into the watercourse.

When removing a culvert, the watercourse must be restored to the original cross section. The removal and restoration must be limited to the minimum work area necessary.

**For Government Purposes**

**Low Risk Category:** All applications meeting the Low Risk conditions will require a Regulatory review.

**High Risk Category:** All applications that do not meet the Low Risk Category criteria require a Regulatory and Advisory review.

### Purpose

This section covers:

- maintenance or minor repair of dam components,
- water level management,
- major repair or redesign of dam components or water control structures,
- dredging of an impoundment, and
- decommissioning of a dam or water control structure and impoundment.

**Generally, the creation of new dams and impoundments are not permitted on Prince Edward Island.**

### Definition

Maintenance or Minor Repair – Routine operation including minor repairs such as the hand removal of debris, replacement of railings, gratings, minor repairs to fishway and accessories not related to the water control structure or replacement of damaged stop logs. **These activities do not require a permit/review.**

Water Level Management – All activities related to the establishment and maintenance of the appropriate, normal operating levels of the impoundment. It also includes the de-watering and re-flooding of the impoundment when carrying out physical works at the site. **These activities require a permit/review.**

Major Repairs and/or Redesign – All repairs including any work (other than routine maintenance) on the water control structure, reconstruction of a severely damaged dam and washed out impoundment, a change in the elevation of the spillway or the water control structure, removal of debris with heavy equipment, or the replacement and reconfiguration of the fishway. Depending on the type of repair proposed, activities may require water level management consideration. **Major repair and/or redesign activities require a permit/review.**

Dredging of an Impoundment – Activities related to the removal of accumulated sediments in the impounded area by

mechanical means. Dredging activities may require water level management consideration. **These activities require a permit/review.**

Decommissioning – Activities related to the demolition of existing water control structures and removal or deactivation of existing impoundments, thereby restoring pre-managed conditions. **These activities require an environmental impact assessment in addition to the permit/review process.**

### Environmental Protection Objectives

- To ensure adequate fish passage (where required).
- To minimize upstream and downstream impacts on the fisheries and aquaculture resources and other riparian/wildlife habitat.
- To minimize sedimentation of the watercourse downstream of the impoundment.
- To provide flexibility in water level management.
- To ensure maintenance flow is provided downstream of the structure.
- To minimize sedimentation as a result of replacement, water level management, maintenance or repair.
- To maintain or enhance water quality upstream and downstream of the structure.

### Planning Considerations

Prior to undertaking dam or impoundment activities, consideration must be given to the impact on fisheries, aquaculture and wildlife. The need for passage for fish species currently moving through the site or impacted by the activities must be the primary consideration.

Water control structures may result in changes in flood water velocity, flood stage, stream bank erosion, and sediment deposition which may affect other riparian and flood plain landowners. A poorly maintained dam carries the potential for considerable damage such as flooding, severe erosion, habitat destruction, loss of property and/or human lives.

Generally, applications for all of the activities except maintenance require interdepartmental consultation and detailed project review because of the significant effect most dams and water control structures have on the natural environment. In addition to the Watercourse, Wetland and Buffer Zone Activity Guidelines, a review of other applicable guidelines (e.g., Guidelines Respecting the Management of Impoundments on Prince Edward Island, see Appendix J) may be required. Each site is unique and will require a site specific review to determine the type of activities that are best suited to the location.

The following proposed activities are likely to require an environmental assessment (provincial and/or federal):

1. Permanently change the elevation of the dam, spillway or water control structure,
2. Seasonal, long term change to the elevation of the dam, spillway or water control structure,
3. Major modifications to the water control structure (e.g., change in location of structure, bottom versus surface drawdown facility),
4. The construction of a new drawdown facility, installation of a new fishway (where none previously existed),
5. Incorporation of a hydro electric facility, aquaculture operation or mill (i.e., saw, grist),
6. Construction of a new impoundment,
7. De-watering of an impoundment, and/or
8. Decommissioning of an impoundment.

Redesigning a water control structure requires consideration of technical matters such as the magnitude and duration of flooding, ice and water forces on the structure, maintenance flow and fish passage requirements. Impoundments should allow for the migration of fish. If a fishway does not already exist, the provision of fish passage should be considered when carrying out major changes to (or redesign of) the water control structure. Water control structures may exist in isolation or as a component of a dam. Repair and modification activities may include work on the following:

**1. Water Release Structures**

Water release structures have the capacity to maintain the water control structure at a safe level and to discharge design floods without damage to the dam and associated structures. Nearly all water release structures are based on one of the following or combinations thereof: spillway, gates and orifice; trough and chute, or siphon. An overflow spillway may have a crest formed to fit the shape that overflowing water would take.

**2. Flow Energy Dissipaters**

Plunge pools and stilling basins are means of dissipating the energy of falling water over a dam or other structure. These structures must be carefully designed to prevent undercutting which affects stability of the energy dissipater and possibly the dam. Therefore, all flow energy dissipaters downstream of water release structures must be designed by a Professional Engineer with experience in hydro-technical design.

**3. Gates and Valves**

Outlet gates and valves serve to control flow from a water control structure created by a dam. A gate is a closure device in which a barrier is moved across the path of flow to control the flow and elevation of water. Gates and valves can also be classed as regulating or guard. Regulating gates and valves operate under a full range of flow and pressure conditions. Guard gates and valves usually function as a secondary device for shutting off the flow of water, should a primary device become inoperative. All

gates and valves on major structures must be designed by a Professional Engineer.

**4. Stoplogs**

Stoplogs are typically installed and removed during fluctuating flow conditions taking into consideration maintenance flow under a water level management regime. Design criteria include the number of stoplogs to be installed, the on-site storage of stoplogs (so that they are available when needed), and the flow criteria on which addition or removal will be based.

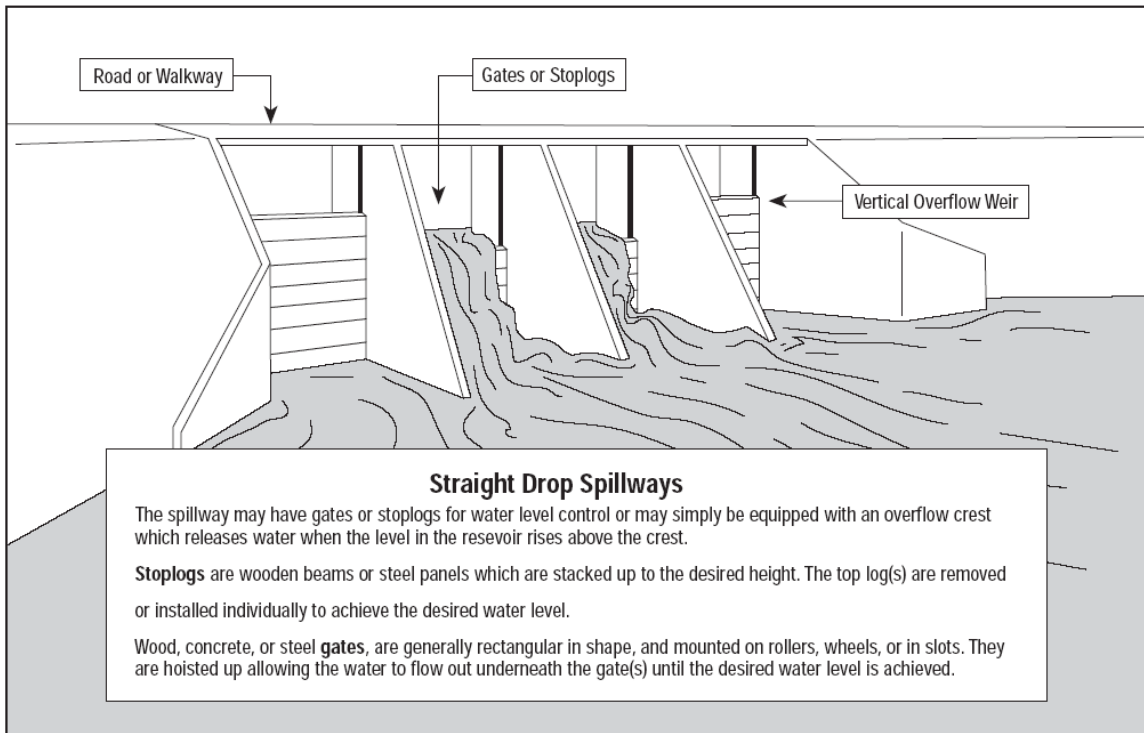
**5. Fishways**

Fishways are a means of passing fish around an obstacle. Important considerations in the design of these structures include site conditions, the behaviour and swimming abilities of the fish to be passed, flow conditions during each month of fish migration, and the hydraulic characteristics of the various types of fishways. Plans for fishway modifications must be provided to *Fisheries and Oceans Canada* for review before the activity is undertaken.

**6. Other Regulating Structures**

For the purpose of the Watercourse, Wetland and Buffer Zone Activity Program, regulating structures other than those mentioned above are also considered under the category of water control structures.

Over time, large quantities of sediment accumulate in the impoundment due to land use practices in the watershed upstream of the impoundment. Acknowledgment of these practices and the management of this sediment is a primary consideration when undertaking repairs, redesign or decommissioning. The frequency of sediment accumulation and volume of material in the impoundment must be considered when planning management or maintenance options. A large volume of material and frequency of sediment accumulation may eliminate any practical options for impoundment management and the best option for management may be no intervention.



The release of sediment downstream can result in the destabilization of the watercourse, degradation of aquatic and wildlife habitat, as well as diminishing water quality. Proper attention and planning must ensure that sediment is not released downstream of the impoundment.

The removal of a dam, water control structure or impoundment should only be carried out when the benefits of the removal exceed the cumulative effects of the associated environmental impacts. Planning for this type of alteration must not only involve choice of machinery and timing but also an analysis of the positive and negative effects of the removal of the structure on the environment and community.

Prior to the removal of any dam, water control structure or impoundment, public consultation may be required.

Site restoration work upstream and downstream of the obstruction should be considered as part of the planning considerations.

Removing major obstructions such as dams, water control structures or impoundments has the potential for significant impact on the aquatic habitat. The removal of a dam, for example, could have severe effects downstream and upstream if the water is not released gradually. The sudden release of water and accumulated sediments could have long term impacts including the destruction of banks of watercourses and property, destruction of wildlife/aquatic habitat or endangerment of human life.

This type of alteration can vary greatly depending on the size and type of obstruction. Timing of the activity should respect aquatic and wildlife species. Each project of this nature will be subjected to intensive fish/shellfish habitat protection measures.

### **Application Requirements**

1) **Water Level Management, Repair, Replacement or Maintenance of Dams or Water Control Structures** - In

addition to the standard information required on the application form, the following must be included:

- a) a plan, profile, and cross sectional drawing of the dam including the water control structure and fish passage facilities;
- b) a full description of the proposed methods including a water and sediment control plan;
- c) an explanation of the design approach,
- d) information on the design flows (and, where appropriate, water levels),
- e) statements on the intended range of operating conditions (and the likely consequences of operating outside that range), and
- f) statements on the effect of flow regulation and diversion on high, medium and low flow conditions in the watercourse.

Applications for major repairs on dams may also be required to include:

- a) plans designed and stamped by a person licensed to practice as a Professional Engineer pursuant to the Engineering Profession Act and experienced in hydrotechnical design;
- b) specifications on the materials and workmanship;
- c) a description of the normal operation of the dam noting the maximum drawdown and normal operating level of the water control structure.

2) **Repair or Dredging of Existing Impoundments** - In addition to the standard information required on the application form, a copy of the following documents must be included:

- a) Purpose of the proposed activities (why is it being undertaken, potential outcomes/benefits);
- b) Physical location of impoundment (pond) in the watershed;
- c) Ownership of the impoundment and surrounding area;
- d) The proposed timing and sequence of events for the intended activity;
- e) Mitigation proposed for potential negative impacts;
- f) Dimensions of the impoundment basin and existing stream channel.
- f) Important downstream habitat including aquatic habitat or wetlands,
- g) Rescue plan for stranded wildlife and aquatic species, if dewatering,
- h) The drawdown procedure (where applicable) for the impoundment, including time of year to occur and provisions for fish passage,
- i) Storage area for heavy equipment and refueling location,
- j) Description of the proposed re-flooding procedure (if applicable), including timing and provisions for fish passage,

The following additional information may be required with the Watercourse, Wetland and Buffer Zone Activity Permit Application for the following activities:

Major Repairs or Redesign of Impoundments –

- a) Stamped, engineering drawings clearly indicating the dimensions of structures to be reconstructed or repaired showing the capacity to handle peak flows and to provide full draw down and adequate fish passage (where deemed necessary),
- b) Current volume of water and sediment (if applicable) in the impoundment,
- c) A sediment management plan,
- d) A list of users of the impoundment (e.g., trappers, hunters, anglers, irrigation users, eco-tourism, fire departments) and seasonality of use,
- e) A list of types of fisheries and aquaculture facilities potentially impacted,

- k) A water level management plan for fish passage and wetland associated with the impoundment,
- l) A description of any proposed impacts to nearby civil work or infrastructure (i.e., utilities, water, sewer).

Dredging of Impoundments – Any application for dredging of impoundments must provide a rationale for the project and must include details regarding the existing physical conditions of the impoundment, the work to be proposed, the expected outcome and long term benefits of the project. Additional information required may include:

- a. A plan, profile and cross sectional drawing of the area to be dredged, clearly indicating the current volume/depth of sediment in the impoundment, amount of material to be excavated, and the location of the disposal area;
- b. Proposed excavation method and equipment requirements,
- c. A detailed chemical analysis to determine the sediment composition and the presence of any potential contaminants,
- d. The proposed timing and sequence of events for sediment removal,



- e. A description of any proposed impacts to nearby civil work or infrastructure (i.e., utilities, water, sewer),
- f. Storage area for heavy equipment and refueling location,
- g. Description of proposed sediment containment and erosion prevention measures,
- h. Description of how the dredged material and the disturbed site will be stabilized,
- i. Description of the long term mitigation measures in place to control siltation (e.g., sediment traps).

**3) Decommissioning of Dams, Water Control Structures or Impoundments**

These activities are subject to an environmental assessment and the scope of the environmental assessment will reflect the site specific requirements determined in consultation with regulatory authorities.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Other Government Agencies Involved**

- 1) If activities will generate impacts on roads and bridges, or if transport is required (e.g., dredged spoils) on public roadways, the *Prince Edward Island Department of Transportation, Infrastructure and Energy* and local municipalities must be contacted regarding weight restrictions, highway safety issues, etc.
- 2) Under the Fisheries Act, *Fisheries and Oceans Canada (DFO)*:
  - a) Is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by

DFO. Authorization, if required, must be obtained before the activity can occur.

- b) Must review any modifications to fish passage facilities before the activity can occur.
- 3) The disposal of contaminated dredged sediments on land must receive a Land Disposal Permit from the Environment Division of the *Prince Edward Island Department of Communities, Land and Environment*. This permit is required in every case to prevent ground and surface water contamination, nuisance odours, as well as, public health and safety issues.
- 4) Unless ownership rights were granted, lands below the normal high water mark are owned by the *Province of PEI*. To verify land ownership rights, the original deeds should be checked with the *Prince Edward Island Department of Finance*.

**Guidelines**

Reconstruction or repair will incorporate adequate fish passage (where deemed necessary). Where it is determined that fish passage is required, facilities must be constructed to adequately provide for the passage of species presently moving through the site, or which could be reasonably expected to do so.

Reconstruction or repairs will ensure that the control structure is capable of handling anticipated peak flows and of providing full draw down of the associated impoundment.

Monitor for fish trapped or stranded during drawdown and be prepared to relocate them to the main watercourse. Be prepared to assist any stranded wildlife.

All exposed soil must be seeded and/or stabilized immediately following completion of activities. Vegetate all disturbed bank and riparian areas to prevent soil erosion and to help seeds germinate. If there is insufficient time (at least four weeks) in the growing season remaining for the seeds to germinate, the site should be stabilized

(e.g., cover exposed areas with erosion control blankets to keep the soil in place and prevent erosion) and vegetated the following spring.

The maintenance flow specified in the **Watercourse, Wetland and Buffer Zone Activity Permit, Conditions of Approval** must be maintained in the watercourse or wetland downstream of the structure at all times.

Debris generated during the project must be prevented from entering the watercourse and disposed of in a provincially approved manner.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep emergency spill kit on site in case of fluid leaks or spills from machinery.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks. No washing of tools, concrete forms or machinery may take place in or adjacent to the watercourse.

**Decommissioning of Dams, Water Control Structures or Impoundments**

The removal of dams, water control structures such as fishways and weirs, and other hydraulic structures which impound water are major undertakings. As such the construction techniques and guidelines for these alterations will be determined according to the conditions specific to each site.

**For Government Purposes**

**Replacement, Water Level Management, Maintenance or Repair of Dams or Water Control Structures** - Applications for these activities require Regulatory and Advisory Review. Maintenance or minor repairs do not require a permit/review.

**Repair or Dredging of Existing Impoundments** - Applications for these activities require Regulatory and Advisory Review.

**Decommissioning of Dams, Water Control Structures or Impoundments** - Applications for these activities require Regulatory and Advisory Review.

**Purpose**

The purpose of this activity is to remove woody material from a watercourse which has caused or may lead to blockage, disruption of fish passage and habitat, or flooding.

**Definition**

De-brushing or woody debris removal is the removal of natural material (living or non-living) from the watercourse. Examples of woody debris include: branches, logs, shrubs (e.g., alder) or fallen trees. This section does not include submerged, floating or emergent vegetation all of which are located in "Section 3.1 - Aquatic Vegetation Control". Beaver dams are not considered to be debris. Beaver dam issues can be found in "Section 3.4 - Beaver Dam Removal".

**Environmental Protection Objectives**

- To restore fish passage.
- To protect the existing aquatic habitat by retaining adequate instream cover.
- To prevent flooding of adjacent property and infrastructure.
- To minimize disturbance/degradation to the bed, banks, or aquatic habitat.
- To encourage the movement of stream flow by removal of impediments to flow.

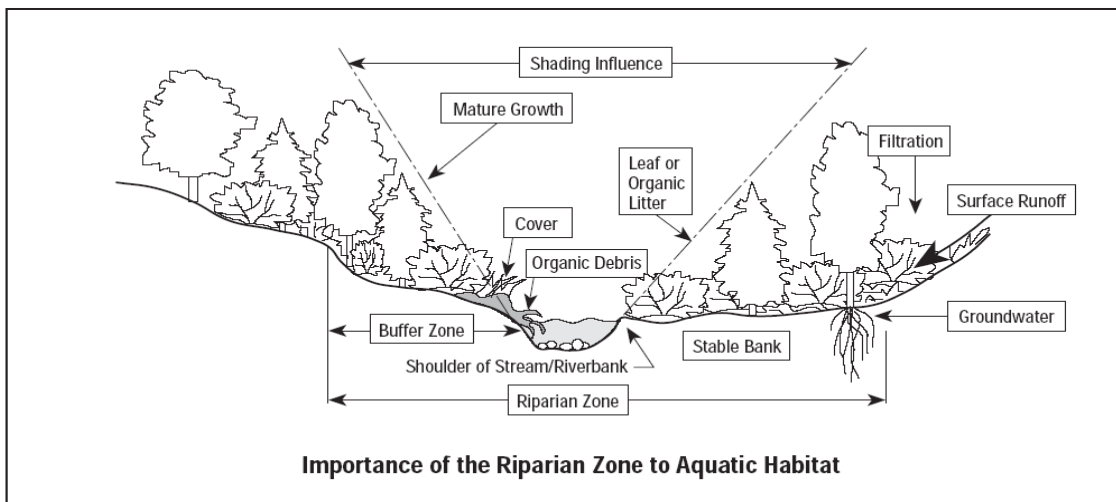
**Planning Considerations**

Removing debris that has remained in the stream for a long period of time may cause adverse impacts to fish habitat and produce downstream flooding. A stream survey will assist managers in developing a plan for debris removal while ensuring measures are provided to prevent adverse downstream impacts. Instream debris removal projects (unless they are limited in scope, < 100 metres) should be preceded by an assessment of the stream to determine the extent of the problem.

Debris removal activities should be carried out in conjunction with other methods detailed in "Section 3.18 - Watercourse Habitat Improvement Works" to avoid impacting downstream water quality as well as aquatic and wildlife habitat.

An excessive amount of woody debris has the potential to be harmful because it may:

- become a barrier to fish migration;
- cause channel braiding which leads to decreased flow, water depth or velocity which in turn becomes a barrier to fish passage;
- cause upstream flooding; and/or
- trap silt and cover the gravel/cobble substrate required for aquatic life processes.



However, not all logs or tree root systems in a watercourse need to be removed. Often logs and roots become sheltering areas for trout and other species of fish.

Alders or small trees growing on the banks of the watercourse augment natural fish cover, contribute to food input from terrestrial insects, and control erosion. Careful consideration should be given to when and where these shrubs should be removed.

If the debris has remained in the watercourse for a long period of time, it may have become so deeply embedded that removing it might cause more damage than leaving it in place. Disturbing firmly embedded logs, branches, or other debris not only releases sediment into the water but may disrupt the aquatic habitat. Debris which has been damming the flow of a watercourse may also cause flooding downstream if removed.

Consideration should be given to the consequences of removing trees which are securely rooted to the banks of a watercourse. These root systems may be protecting the bank from natural erosion.

When coniferous trees (e.g., white spruce) have fallen across a watercourse, the limbs should only be removed from the underside of the tree for the following reasons:

- fish passage is restored,
- the potential for further debris accumulation is lessened,
- adequate instream cover is maintained, and
- the fallen tree acts as a travel corridor for wildlife.

**Application Requirements**

In addition to the standard information required on the application form, the following must be included:

1. a description of the existing conditions and historical work carried out;
2. a description of sediment containment plans;

3. a description of the debris to be removed and for what purpose (e.g., stream meander, fish habitat reconstruction); and
4. a full description of the proposed removal methods.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Guidelines**

Obtain landowner permission before carrying out the activity.

Mitigation measures to prevent or minimize impacts (e.g., collection of downstream sediments) need to be in place prior to carrying out the activity.

It is important that as little of the forest canopy as possible be removed.

All debris that is removed should be disposed of where it will not be washed back into the watercourse by high flows.

No heavy equipment is allowed to carry out these activities. Work must be carried out with hand operated equipment such as chainsaws, lopping shears or bucksaws.

Wash, refuel and service chainsaws and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

If chainsaws are to be used for instream woody debris removal, a bio-degradable chain oil must be used.

When coniferous trees (e.g., white spruce) have fallen across a watercourse, the limbs should only be removed from the underside of the tree.

**For Government Purposes**  
Applications for these activities require Regulatory Review.

**Purpose**

The purpose of dredging may include the:

- 1) Deepening of channels, trenches, harbours, or inlets for use by boats;
- 2) Removal of unsuitable material at proposed locations for supporting structures such as wharves, piers, abutments, bridges, causeways, etc.;
- 3) The excavation of unwanted or polluted materials such as contaminated sediments;
- 4) Maintenance of existing instream sediment basins or silt traps.

- To avoid disruption of fisheries and aquaculture operations.
- To prevent disturbance of coastal colonial nesting birds feeding and nesting areas (e.g., piping plovers).

**Planning Considerations**

The possible negative consequences of a poorly planned dredging operation can be significant. These operations have the potential to alter and/or destroy fish and fish habitat, water quality and private property. Current aquatic resources and usage, threatened, endangered or species of concern in the area, and the proximity to water intake pipes, must be considered when planning dredging activities.

**Definition**

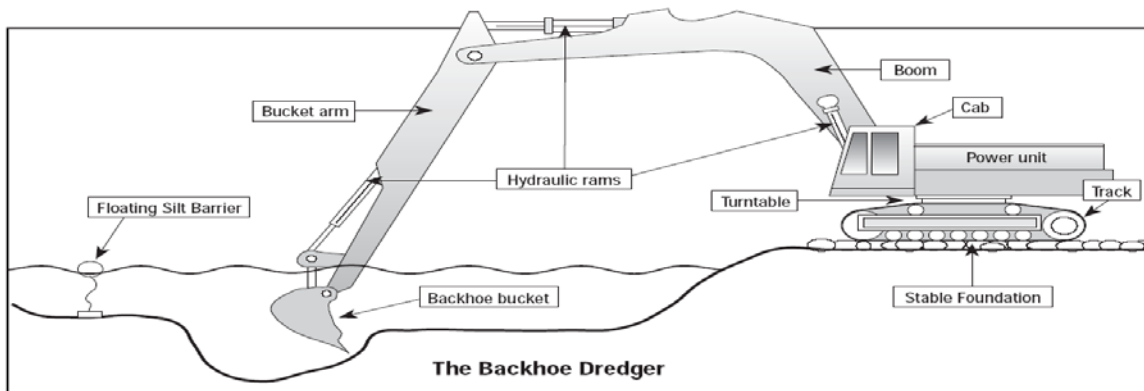
Dredging is the excavation of material from the bed of a watercourse or wetland by mechanical means.

The selection of the appropriate dredging equipment to be used is determined by the following factors: access, physical characteristics of sediments, quantities to be dredged, seasonal considerations, contamination level of sediments, disposal method and location. Dredging equipment commonly used can be divided into two different types:

**Environmental Protection Objectives**

- To minimize the impact of the dredging operation on aquatic habitats.
- To minimize sedimentation of downstream watercourses or wetlands.
- To prevent the dispersal of potentially contaminated sediment during dredging activities.

- 1) **Mechanical** dredging equipment excavates the material intact, with some form of mechanically maneuvered bucket, depositing it onto a barge, scow, truck or a land based containment site. Mechanical dredges are generally used to remove sediment material or woody debris.



This equipment can be operated from restricted and/or shallow areas, a barge, the shore or wharf/pier. Examples of mechanical dredges include: the clamshell, dragline and hydraulic hoe dredges.

- 2) **Suction or Hydraulic** dredges are characterized by the entrainment and transport of bed material as a slurry of water and sediment in a high velocity water stream. The dredged material is pumped through a floating pipeline to a suitable disposal site. Suction/hydraulic dredges are able to pump mud, clay, fine silt, and gravel from shallow and deep marine waterways. They are generally used for larger scale projects.

Diminished water quality can interfere with the necessary functions of aquatic species, such as migration, feeding and respiration, and if concentrated and/or prolonged can be lethal. Every dredging proposal is unique, and the possible impacts must be carefully considered at the design stage taking into account the potential for:

- Disruption of the benthic habitats caused by excavation or burial can result in a direct loss of aquatic habitat. Organisms may also become entrapped by the dredging equipment or buried during the operation.
- Turbidity and sedimentation at the dredging site, during transportation to the disposal site, or at the disposal site. Increased levels of suspended sediment can interfere with the necessary functions of aquatic species, such as migration, spawning, growth and feeding, and can be lethal, if concentrated.
- Disturbance and exposure of anoxic sediments which can deplete oxygen from the surrounding waters. The chemical oxidation of metals and other inorganic compounds uses dissolved oxygen present in the water. This

process can occur at the dredging site and/or at an underwater disposal site.

- The release of toxic or deleterious substances. Hydrogen sulphide gas is often trapped in sediments and can be released by disturbance to these sediments. In particular, sediments high in organic content (e.g., plant material) have the potential to promote the formation of hydrogen sulphide and ammonia. Contaminants can be introduced into the water when sediments are dredged, and may be taken up by aquatic organisms. Dredging of contaminated sediments may release contaminants directly during the dredging, transport and disposal processes or as a result of runoff, leakage, or leaching from the spoils at the disposal site.
- The deposition of dredged spoils. Dredged spoils are often disposed of behind a containment dyke at or near the bank of a watercourse or boundary of a wetland. The containment dyke must be capable of retaining the spoils inside the reclamation area. Introduction of excessive amounts of sediments into the watercourse or wetland could affect the existing hydraulic regime. Sediment may be returned to the watercourse or wetland by the erosive action of wind, runoff, currents, or by mass movement or slippage of the material caused by instability of the dumped spoils or the underlying ground.
- Impacts on other users/activities within the watercourse or wetland, including:
  - disturbance to fishing and aquaculture operations by the movement and actions of the dredging equipment;
  - disruption or damage to underwater cables.;
  - diminished quality of shoreline property caused by; the appearance or odour of dredged spoils, increased turbidity, or contamination of a water supply;

- disruption of navigable channels;
- disruption of water current patterns and the natural transportation and deposition of bed material;
- plant, aquatic or wildlife species which are considered endangered, threatened or of special concern.

All significant marine resources and endangered species in the vicinity of a dredging operation should be identified during the planning stage, and then a work plan must be prepared to minimize the adverse impacts on these resources.

**Sediment Control**

Floating silt curtains are often used to control sedimentation of the watercourse during dredging operations. These are pervious floating barriers oriented vertically in the water column from the surface to the bed of the watercourse restricting the migration of turbidity and suspended solids from a dredging or disposal operation. They must be installed in such a way that they fit the bottom contours of the watercourse and are of sufficient height to be able to adjust to fluctuating water levels. A chain threaded through the bottom of the curtain helps to ensure an effective barrier by following the bottom contour. ***It is critical that floating silt curtains (booms) be monitored and maintained at all times to ensure proper working order.***

Scheduling of work will depend on site specific parameters (e.g., fresh or salt water habitat).

On larger scale projects there may be a requirement for additional monitoring stations (e.g., suspended sediment or other parameters) during dredging and disposal activities.

**Disposal of Dredged Material**

Disposal of dredged material on wetlands is generally not permitted. Alternatives for disposal include:

- 1) Open water disposal is the placement of dredged spoils in a watercourse or the ocean by means of a pipeline or release

from a barge. Although the easiest and the most economical means of disposal, this option is not permitted in provincial fresh waters because of the potential significant impact on the hydraulic regime of the watercourse, aquatic habitat, and water quality. ***Ocean Disposal Permits are required for all marine disposal activities.***

- 2) Land disposal is practiced when the dredged material is suitable for some purpose such as beach or sand dune replenishment, construction (aggregate), top soil, or land fill. When dredging activities are occurring in fresh water this choice should be encouraged. The recycling of salt water dredge fines could pose some problems to the terrestrial environment or groundwater and should be considered carefully before proceeding.
- 3) Confined disposal involves placement of material within a dyked or confined area. The material may be piped or deposited directly by machinery operating on shore or transported and dumped by trucks. The dykes generally consist of stabilized earth fill or rock fill embankments. Dykes must be designed to retain the solid particles and pond water while allowing the release of clean effluent to the watercourse or wetland as well as withstand erosive action of wind, waves, and currents.

**Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. A plan, profile and cross sectional drawing of the area to be dredged, clearly indicating the current volume/depth of sediment, amount of material to be excavated, and the location of the disposal area;
2. Proposed excavation method and equipment requirements,
3. A detailed chemical analysis to determine the sediment composition and

the presence of any potential contaminants,

4. The proposed timing and sequence of events for sediment removal,
5. A description of any proposed impacts to nearby civil work or infrastructure (i.e., utilities, water, sewer),
6. Storage area for heavy equipment and refueling location,
7. Description of proposed sediment containment and erosion prevention measures,
8. Description of how the dredged material will be stabilized.

**Failure to submit required documents could result in the return of the application without it being processed.**

### **Other Government Agencies Involved**

- 1) The approval of *Transport Canada*, which administers the Navigable Waters Protection Act, must be obtained when an activity may impede navigation of any navigable watercourse or wetland.
- 2) If activities will generate impacts on roads and bridges, or if transport is required (e.g., dredged spoils) on public roadways, the *Prince Edward Island Department of Transportation, Infrastructure and Energy* and local municipalities must be contacted regarding weight restrictions, highway safety issues, etc.
- 3) Ocean disposal of dredge spoils must be approved by *Environment Canada* under the "Ocean Dumping Regulation" of the Canada Environmental Protection Act.
- 4) *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act no person shall carry on

any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.

- 5) The disposal of contaminated dredged sediments on land must receive a Land Disposal Permit from the Environment Division of the *Prince Edward Island Department of Communities, Land and Environment*. This permit is required in every case to prevent ground and surface water contamination, nuisance odours, as well as, public health and safety issues.

### **Guidelines**

When the dredging method produces an unacceptable amount of turbidity, the area to be dredged must be contained by an effective siltation curtain installed prior to the commencement of the dredging.

Floating silt curtains (booms) must be monitored and maintained at all times to ensure proper working order.

Infilling of a containment area should be carried out beginning at the upland edge and progress towards the watercourse to facilitate containment and settlement of the spoils.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall).



Prior to carrying out any dredging activity, inspections may be required to prevent the introduction of aquatic invasive species. This may include the requirement to wash all equipment and treat with an approved chemical (e.g., undiluted vinegar).

**For Government Purposes**

Applications for these activities require  
Regulatory and Advisory Review.

### **Purpose**

The purpose of this activity is to prevent loss of material from the banks of a watercourse or exterior coastline and protect property adjacent to these areas.

### **Definition**

Erosion control activities use materials (e.g., rip rap, rocks, concrete, treated lumber) or vegetation to stabilize and protect the banks of a watercourse or exterior coastline from the scouring and erosive action of wind, water and ice.

### **Environmental Protection Objectives**

- To minimize sedimentation of the watercourse or coastal waters.
- To minimize the advancement of the watercourse or coastal waters onto property and infrastructure.
- To ensure the use of non-toxic inert materials.
- To minimize impact to the surrounding aquatic (i.e., finfish and shellfish) and wildlife habitat, species and resources.
- To minimize the impact (i.e., compaction, destruction) by heavy equipment/motor vehicles on the traveled coastline and/or watercourse.
- To minimize impacts of the construction phase on water quality.
- To minimize impact of the activities on existing vegetation (i.e, trees, shrubs).
- To reduce the erosion rate.

### **Planning Considerations**

The coastline of Prince Edward Island is characterized by easily erodible sedimentary rock, composed mostly of sandstones and claystones. Forces of nature and natural processes (i.e., waves, wind, tidal currents, ice scour, weathering, freezing/thawing and chemical breakdown of rock) often result in

erosion. However, these natural processes also supply beaches with sand. If all erodible shorelines were stabilized, eventually the coastline would become severely altered and change drastically in appearance.

Average shoreline erosion rates vary from 0.5 metres (1.6 feet) per year on the south and east shores of PEI to as much as 1.5 metres (5 feet) per year on the north and west shores. The higher erosion rate, on the north and west coasts, is directly attributable to the high degree of exposure to storm conditions. Prince Edward Island will be severely affected as the influence of global warming takes hold in years to come. Climate change will bring with it higher tidal fluctuations, increased incidents of storm surges and increased erosion along shorelines.

It is important to remember that erosion will always be occurring in the shore zone. Erosion control methods are not solutions to shoreline erosion, they are only measures which will help slow down or significantly limit the amount of erosion. Even if all the work is done properly and at great expense, the site will still have to be maintained and/or improved in the future to keep up with the forces of natural erosion.

To minimize environmental impacts caused by the activity, the length and timing of the construction period must be kept to a minimum and planned so as not to coincide with periods of increased sensitivity for fish, such as spawning and egg incubation times. Special consideration must also be given to the shellfish industry and the timing will take into account spatfall windows and other sensitive characteristics of the resource.

Each site is unique and will require a site specific review to determine the type of structure best suited for the location. The method used depends on the magnitude of the erosive forces and economic feasibility.

The registered property owner is responsible for the maintenance of material placed for shoreline protection. Washout and/or slumping of shoreline protection material must be repaired at the landowners expense.

**Erosion Control Methods**

1. **Vegetation** in the form of grasses, shrubs, trees and vines provides excellent protection against soil erosion. This method is most effective where the banks are made up of soil which can sustain plant growth and have gentle slopes. Vegetation also promotes aquatic and wildlife habitat.

The degree of erosion protection offered by vegetative measures increases as the plants and root systems grow and spread. The root systems hold soil particles in place and maintain the soil's capacity to absorb water.

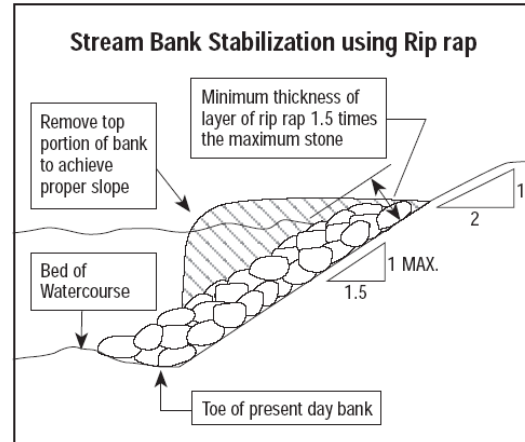
Vegetation is more compatible with the natural watercourse characteristics. In general, the plants should be capable of attaining dense growth with fibrous roots providing a complete soil cover. The selected species should be easy to plant, fast growing, requiring little or no irrigation, fertilizer, or mowing. Examples of plants used for vegetative stabilization include: alders, willows, poplars, shrub willow, shrub dogwood, lupine, clover, timothy and trefoil. A local nursery could be consulted for species of plants that must be adapted to specific conditions.

Vegetation is less costly than other measures and once it is established requires little or no maintenance.

**Other types of erosion control works should be avoided if vegetation can be used, or they should be used in combination with vegetation wherever possible.**

2. **Rip Rap** is a layer of boulders, cobbles or rock fragments placed over an exposed slope to help prevent erosion. Rip rap depends on the soil beneath it for support, therefore it must be founded on solid ground. If the banks are unstable, crumbling, excessively steep or vertical, rock filled wire baskets or retaining walls may be used.

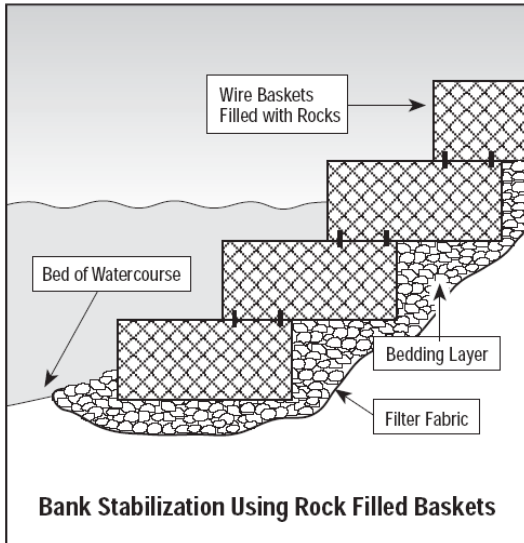
The effect of adding rip rap is immediate, and it can be used during any season. However, the rip rap should be hard, and resistant to weathering.



The sequence for construction includes uniformly grading the surface of the banks, followed by placement of the rip rap. Placement of a filter layer, such as geotechnical fabric and/or a layer of clean gravel may be used.

Depending upon the type of rip rap material selected and whether filter fabric is used in conjunction with the rip rap, this method generally proves to be the least expensive (except for vegetation).

3. **Woven wire baskets (gabions)** filled with rocks large enough that they will not pass through the openings in the baskets may be used to armour the eroding or slumping banks of a watercourse or exterior coastline.



Rock filled wire baskets can be used where the velocity of the water is high (inland waters) or where the banks are steep.

If properly installed using appropriate materials (igneous rock such as granite), rock filled wire baskets have a long life span.

Placement of a filter layer, such as geotechnical fabric and/or a layer of clean gravel may be used.

This method is generally the most expensive and usually requires an experienced contractor to perform the work.

4. **Retaining walls** are walls consisting of timber cribwork, concrete, metal or other appropriate material built to lend stability to the banks of a watercourse. Retaining walls can be used on steep or vertical banks.

The retaining wall must be founded at the base of the present day bank. Placement of a filter layer, such as geotechnical fabric and/or a layer of clean gravel may be used.

Depending upon the availability and cost of materials used, this method can be moderately priced.

**Application Requirements**

Landowners are not required to submit the standard Watercourse, Wetland and Buffer Zone Activity Permit Application to the Department if using a Licensed Contractor to carry out erosion control on tidal waters.

**If the work is not being carried out by a Licensed Contractor, landowners will need to acquire a permit from the Department.**

In addition to the standard information required on the application form, the following must be included:

1. A description of the proposed construction methods and materials,
2. The location/extent of the bank and area to be stabilized (Photographs may be provided.),
3. A drawing clearly indicating the length and height of bank affected,
4. A drawing clearly indicating the height, length, width, and depth of the proposed works,
5. A description of the access route to shoreline or watercourse.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Other Government Agencies Involved**

In coastal areas most lands below the high water mark are owned by the *Province of Prince Edward Island*. To verify land ownership rights, the original deeds should be checked with the *PEI Department of Finance*.

**Guidelines**

If private access routes are to be used, landowner permission must be obtained prior to commencement of work.

Machinery must be operated on land (above the high water mark) and in a manner that minimizes disturbance to the banks of the

watercourse and coastal areas (e.g., beaches).

Work must be conducted in a manner so as not to result in any siltation or disturbance to adjacent areas.

Keep an emergency spill kit on site in case of machinery leak or spills. Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the coastline and/or watercourse to prevent any deleterious substance from entering the water.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall) if the work is to be carried out in the immediate vicinity.

Materials used in the erosion control activities must be clean, durable, non-ore-bearing, non-toxic material. All coastline and watercourse erosion control structures must be keyed (entrenched) into the base of the existing bank to prevent undermining.

The exterior face of the coastline structure should be keyed into the beach profile to a depth of at least 0.6 metres (two feet). This will help prevent undermining and possible structural failure.

Erosion control structures are designed to provide stabilization to banks and are constructed at the toe of the existing bank. Materials are not allowed to encroach beyond one metre of the exterior coastline side of the toe of the existing bank. (The reclaiming of eroded property is not permitted.) In freshwater environments the encroachment of materials on the watercourse must be kept to a minimum.

All longitudinal extremities of the structures should be tied back into the existing bank. This will help prevent scouring around the ends of the structure which could lead to total structural failure.

All structures must be designed to withstand water forces from high velocity, wave action and ice movement.

Filter fabric may be used in combination with any erosion control method.

The use of erosion control materials displaying protruding rebar or materials contaminated with asphalt is not permitted.

If rip rap is being used, the slopes where the rip rap is to be placed should be graded to a gentle slope. A uniform slope may be obtained with clean, well-graded fill material which can be added and compacted as needed.

If rip rap is installed, it requires maintenance and should be checked periodically to ensure that movement of the stones does not result in exposing the slope to an increased risk of failure.

If wire baskets are used they must be filled with clean stone material which is larger than the mesh size. When more than one tier is used, the wire baskets must be terraced and tied together to add stability to the structure.

If wire baskets are used, the backfill material behind the wire baskets must be compacted to help prevent future washout.

If a retaining wall is constructed, drainage must be provided for water that accumulates behind the retaining wall using a perforated pipe that penetrates the wall or other such means.

If timber cribwork is constructed, no wood treated with creosote or pentachlorophenol should be used below the normal high waterline.

**For Government Purposes**

Applications for this activity require Regulatory Review

### **Purpose**

The purpose of this activity is to install a temporary structure in order to assess biological or physical parameters (i.e., to enumerate fish, obtain a systematic record of water level and flow).

### **Definition**

Instream data collection structures are devices installed on or adjacent to watercourses for hydro technical and fish counting purposes (e.g., automatic sampling devices or water flow gauging stations used for biological assessment and scientific purposes). The placement of data loggers, thermometers and other minor data collection devices are not considered a watercourse or wetland activity.

### **Environmental Protection Objectives**

- To avoid interference with navigation.
- To minimize sedimentation and erosion of the watercourse.
- To maintain the stability of the banks of the watercourse.
- To minimize impacts to fish habitat and migration.

### **Planning Considerations**

Instream data collection structures are likely to vary depending on the scope of the proposed research. Appropriate planning should ensure that safe navigation is not compromised by improperly placed, anchored or marked instream data collection structures. The location of the data collection structure should be readily accessible for inspection and supervision by trained personnel.

Instream work required to install the data collection structure may impact the aquatic habitat and impede fish migration. Placement of the structure will need to respect the local hydraulic conditions (e.g.,

storm water flow), as well as, wildlife and aquatic habitat. An instream data collection structure must be secured or protected from ice and other debris in the flow.

### **Application Requirements**

In addition to the standard information required on the application form, the following must be included:

1. a description of the data collection device and its operation specifics
2. a detailed cross sectional drawing of the installed device (including support or anchoring mechanism);
3. duration, timing and purpose of the proposed structure;
4. a description of the intended construction materials.

**Failure to submit required documents could result in the return of the application without it being processed.**

### **Other Government Agencies Involved**

1. The approval of *Transport Canada* which administers the [Navigable Waters Protection Act](#) must be obtained for any structure to be placed in or across any navigable watercourse.
2. All electro-fishing activities, fish ladders, research, etc. require a scientific license from *Fisheries and Oceans Canada* issued under the "Application for License Issued Pursuant to Section 52 of the Fishery (General) Regulations". To apply for a permit, applicants must go to the following website <http://www.glf.dfo-mpo.gc.ca/Gulf/Licences-Delivery> and click on the application form for Section 52 permit <https://www2.glf.dfo-mpo.gc.ca/fam-gpa/bssp-saps/s52/form-e.php> This scientific license covers areas

including education, public displays and scientific research projects.

### **3. Guidelines**

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall).

Equipment used in the watercourse must be mechanically sound having no leaking fuel tanks or hydraulic systems and should be steam cleaned free of petroleum products and dirt.

Periodical checks are required to ensure that the structure is not causing any damage to the watercourse or aquatic environment.

Proper marking and signage is required for all structures.

#### **For Government Purposes**

Applications for this activity require a regulatory review.

Activities that require a scientific license will be directed to the Fisheries and Oceans website at

<http://www.glf.dfo-mpo.gc.ca/Gulf/Licences-Delivery>

**Purpose**

The purpose of this activity is to provide for an orderly planned development in a way that permits the development while minimizing the environmental impact.

**Definition**

The development of land which includes the removal of the vegetative surface, construction of roadways and installation of utilities for the purposes of a residential, urban or commercial/industrial development (e.g., sub-division).

**Environmental Protection Objectives**

- To control sedimentation of adjacent watercourse or wetlands.
- To control surface erosion upslope of the watercourse or wetland which is a result of the construction methods.
- To minimize impact of the project on aquatic and wildlife habitat and species.
- To minimize impact to water quality.
- To protect and maintain buffer zones surrounding watercourses and wetlands.
- To minimize the impacts of storm-water runoff on watercourses and wetlands.
- To strike an appropriate balance between development and conservation of habitat.

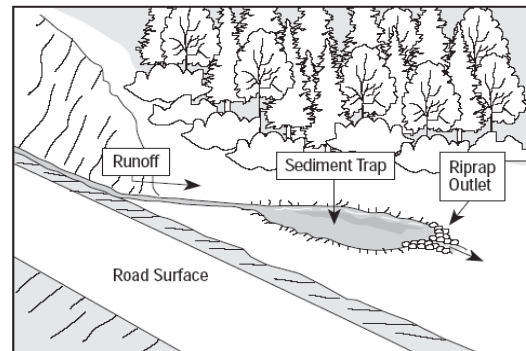
**Planning Considerations**

Development layout must be designed on a site specific basis to minimize environmental impacts. The orderly progression of any construction should take place in a manner which exposes the least amount of erodible soils as possible. This may be accomplished by phasing the development to allow vegetation to reestablish as the project progresses.

When development opportunities are identified for a particular property, careful planning is required in order to minimize any

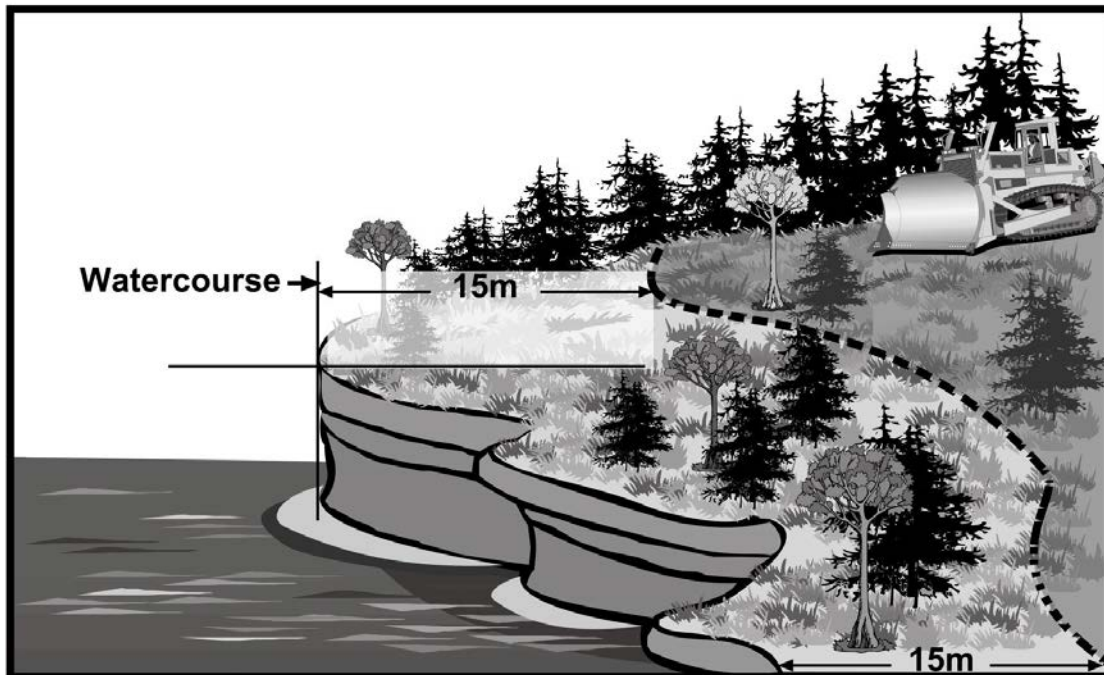
adverse effects on watercourses, wetlands, or aquatic/wildlife habitat. Planning considerations must include:

- the identification of existing drainage patterns, watercourses, wetlands and buffer zones (as required in the Environmental Protection Act) within the proposed development area;
- a surface and storm water management plan must be developed to display how surface and storm water management will be addressed;
- a sediment and erosion control plan must depict a strategy for preventing sediment discharge from disturbed areas during each phase of construction. Sediment discharge potential can be greatest during the early grading phases prior to ditch and slope stabilization and the routing of surface water flows into appropriate areas;



- maintenance activities along access corridors and right-of-ways must be undertaken to minimize the potential of ground disturbance and resulting sedimentation of watercourses;
- a de-watering plan for installation of sewer and water lines when the infrastructure crosses or is in close proximity to watercourses or wetlands;
- the identification of temporary storage locations and containment measures of earthen materials (e.g., topsoil, shale) to be used in the construction phase.





**A 15 metre buffer zone surrounds all watercourses and wetlands. No disturbance of the soil/treecutting/addition of fill material,etc. is allowed within a buffer zone without a permit.**

Fifteen-metre buffer zones (in addition to the required setbacks under the [Planning Act](#) or other applicable legislation or municipal bylaws) are required for residential, commercial, industrial, institutional and recreational developments adjacent to watercourses and designated wetlands. Grass may be planted and mowed and trees and shrubs may be planted within this buffer zone. However, except as otherwise permitted under section 3 of the [Environmental Protection Act](#), Watercourse and Wetland Protection Regulations, soil or cover vegetation may not be disturbed by dumping or excavation.

### **Application Requirements**

**Landowners are not required to submit the standard Watercourse, Wetland and Buffer Zone Activity Permit Application to the Department if using a Licensed Contractor to carry out landscaping in a buffer zone that does not involve the disturbance of trees and shrubs or the addition or removal of more than 30 cm of material.**

**If the buffer zone landscaping work proposed requires the cutting of trees and/or shrubs, the addition/removal of more than 30 cm of material or if the work is not being carried out by a Licensed Contractor, landowners will need to acquire a permit from the Department.**

Any activity (e.g., installation of a waterline, culvert, bridge or sewer line) within 15 metres of a watercourse or wetland requires a Buffer Zone Activity Permit from the *Prince Edward Island Department of Communities, Land and Environment*. Each of the activities' application requirements are detailed individually in the Watercourse, Wetland and Buffer Zone Activity Guidelines.

Any proposed alteration of the buffer zone must be reviewed by the *Prince Edward Island Department of Communities, Land and Environment* since most activities (e.g., the cutting of live trees and shrubs) within the buffer zone are prohibited.

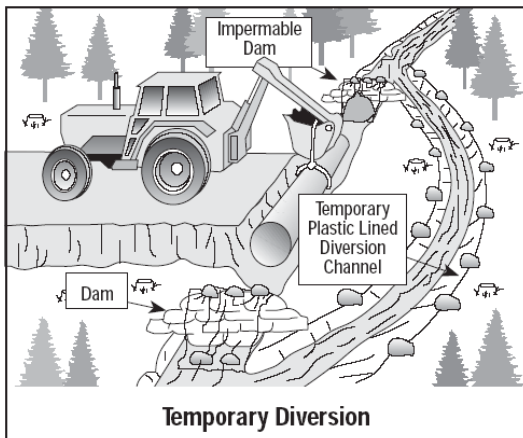
**Guidelines**

Prior to the commencement of construction, sediment control works should be installed to prevent sedimentation of the watercourse or wetland and be maintained, as required, until a vegetative cover is established. (See "Section 2.5 - Potential Environmental Impacts".)

It is important to minimize disturbances caused by the construction phase and to stabilize the site without delay to prevent siltation of the watercourse or wetland.

Timing of work should not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall) as the work can have impacts on resources located long distances from the work site.

Any in-stream work should be carried out in isolation of stream flow (in the dry). Should the watercourse require any adjustments, a pump-around or a temporary plastic-lined diversion must be utilized to maintain water flow and quality.



Stream crossing widths should be kept to a minimum.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Keep an emergency spill kit on site in case of machinery leak or spills.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the coastline and/or watercourse to prevent any deleterious substance from entering the water.

The proponent must take the necessary precautions to ensure public safety.

**For Government Purposes:**

All applications will require a Regulatory review. Other alteration activities associated with the development (e.g. culvert installation) may trigger a Regulatory and Advisory Review. See appropriate section as listed in the Watercourse, Wetland and Buffer Zone Activity Guidelines.

**Purpose**

The purpose of this activity is to provide a continuation of a pipeline or cable across a watercourse without creating a barrier to fish passage.

**Definition**

Pipeline/cable crossings are any locations where fiber-optic, electrical cables or distribution/transmission pipelines (i.e., carrying petroleum products, sewage or water) cross a watercourse.

**Environmental Protection Objectives**

- To minimize impact to the surrounding aquatic (i.e., finfish and shellfish) and wildlife habitat, species and resources.
- To minimize impacts to navigation.
- To minimize impacts to water quality.

**Planning Considerations**

Alignments should be planned to minimize the number of watercourse crossings. **Installation of pipe and cable crossings should avoid wetlands where possible.**

An in-depth assessment of the proposed crossing sites must be undertaken before a route is chosen to determine site suitability and to help in the selection of appropriate construction techniques.

Sensitivity is based on the potential impacts of construction on the variables listed above and their tolerance to sediment load. The harmful impacts resulting from constructing a pipeline/cable crossing can be significant. Concerns include:

1. Loss of habitat - resulting from trenching, backfilling, and associated operations in the watercourse, wetland and riparian areas.

2. Turbidity and Sedimentation - as a result of surface erosion and in-stream work. Unless the installation method involves no in-stream work, the potential for sedimentation is severe.
3. Degradation of water quality - from leaking pipelines or fuel spills.
4. Contamination of soils - caused by a leaking pipeline.
5. Impacts to other watercourse users – from interference with navigational safety, diminished value of shorefront properties caused by turbidity and sedimentation, and interference with fishing operations caused by equipment and sedimentation.

The method chosen depends on habitat sensitivity, size of watercourse, approach slopes, channel and flow characteristics. Emphasis should be placed on habitat sensitivity. Highly sensitive areas should not be considered for a crossing site.

There are two categories of pipeline crossing construction techniques with different methods in each category. Open cut techniques involve work in the watercourse. The preferred techniques for pipeline and cable crossing activities to be completed on Prince Edward Island can be found in the In Isolation of Stream Flow category below. A brief description of each method and the advantages and disadvantages from an environmental standpoint are outlined below:

**1) OPEN CUT CATEGORY**

These techniques involve the use of equipment directly in watercourses and often result in sedimentation and adverse effects to fish and fish habitat.

**Back Hoe Method** - is the most commonly used technique which involves trenching through the watercourse with a hydraulic hoe. The Back Hoe method is used in shallow watercourses.

**Advantages:**

- fast
- minimizes time in watercourse
- maintains channel flow
- maintains fish passage

**Disadvantages:**

- potentially high sedimentation during excavation and backfilling
- in-stream stockpiling of spoil on wide watercourses

**Dragline Method** - is used in wide, deep watercourses. It involves trenching through the watercourse with a yo-yo bucket from either bank. This method will likely require that the applicant complete an Environmental Impact Assessment.

**Advantages:**

- equipment not stationed in the watercourse
- spoil on banks
- maintains channel flow
- maintains fish passage

**Disadvantages:**

- potentially high sedimentation
- slow
- long duration of sedimentation
- safety concern with cables strung across watercourse

**Suction Dredge Method** - is used in wide channels and is accomplished by dredging a trench through the watercourse with suction and pumping the slurry to the banks or tanks on barges. This method will likely require that the applicant complete an Environmental Impact Assessment.

**Advantages:**

- minimal sedimentation during trenching
- maintains channel flow
- maintains fish passage
- no in-stream spoil storage

**Disadvantages:**

- settling ponds required for slurry
- disposal of settled solids
- possible damage to fish and fish habitat

**2) WORKING IN ISOLATION OF STREAM FLOW (IN THE DRY)**

These methods involve work carried out without disturbance to a watercourse.

**Bridge Attachment Method** - involves attaching line to an existing bridge structure. This method is used on large watercourses with unstable approach slopes and sensitive habitat where there should be no in-stream activity.

**Advantages:**

- no sedimentation
- no stream bed disturbance
- maintains normal channel flow
- maintains fish passage

**Disadvantages:**

- possible visual impact
- safety
- visibility of pipeline may lead to damage by third party and introduction of product into water

**By-Pass Method** - involves blocking the water upstream from the crossing and diverting the flow past the site in pipes lying in the stream bed. The watercourse is dammed downstream from the site to prevent backflow. The By-Pass method is used on smaller watercourses and should be carried out during low flow periods.

**Advantages:**

- limited sedimentation
- maintains channel flow
- capable of maintaining fish passage

**Disadvantages:**

- sedimentation during dam construction, removal and as water flushes over construction area
- susceptible to washout
- slow to install
- dries up short reach of stream bed
- fish salvage required from dried up reach

- by-pass pipes can be crushed or blocked
- some bank and stream bed disturbance may be required
- conditions in by-pass pipe, such as slope and velocity of flow, may prevent fish passage

can be used for coffer dams provided that they do not pose a risk of introducing sediment into the watercourse. This method is suitable for moderate to large watercourses.

**Advantages:**

- maintains channel flow
- maintains fish passage

**Disadvantages:**

- possible moderate sedimentation depending on amount of instream work
- dries up wide section of watercourse
- increased water velocity
- possible increased erosion on opposite bank
- potential washout of coffer dam
- slow
- uses large area of right-of-way and creates terrain disturbance

**Dam and Pump Method** - damming the flow upstream and downstream of the construction site and pumping the water around the site using hoses. This method can not be used for high flows; it must be used in small, low flow watercourses.

**Advantages:**

- limited sedimentation
- maintains channel flow

**Disadvantages:**

- sedimentation during dam construction, dam removal and as water flushes over construction area
- susceptible to washout
- slow to install
- dries up short reach of stream bed
- fish salvage required from dried up reach
- barrier to fish
- pumping must be carried out 24 hours a day

**Channel Diversion Method** - involves constructing a temporary plastic lined diversion channel around the worksite and diverting the flow from the watercourse into it. It is appropriate for larger watercourses where it is not feasible to pipe or pump the flow around the site.

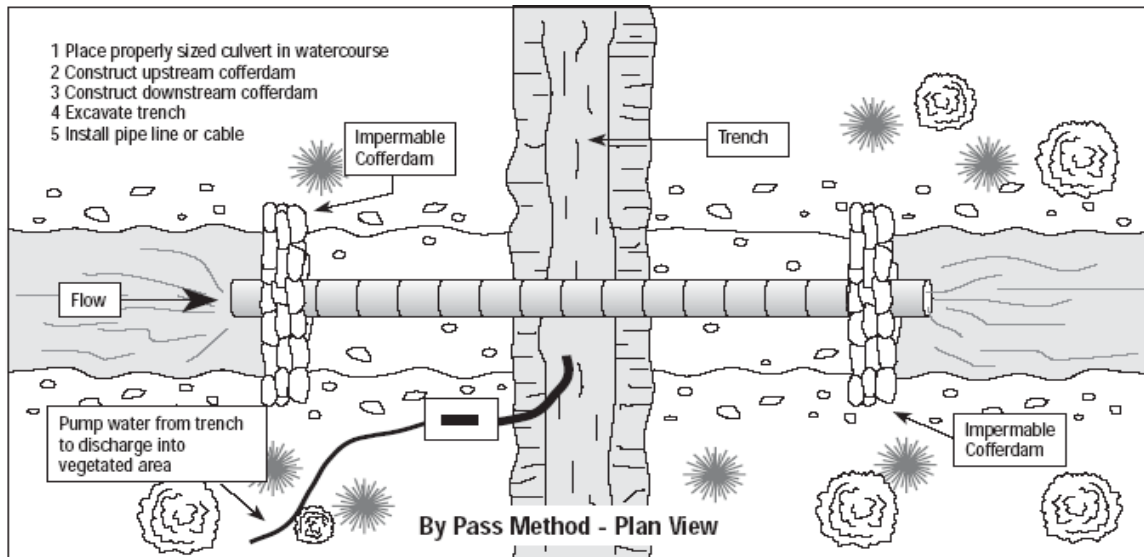
**Advantages:**

- maintains channel flow
- maintains fish passage

**Disadvantages:**

- temporarily dries up long reach of watercourse
- slow
- potential washout of diversion dam

**Coffer Dam Method** - involves installing a coffer dam approximately two thirds of the way out into the watercourse, pumping the work area dry, installing the line, and repeating the procedure on the other side of the watercourse. Sand bags or rocks faced with plastic, sheet piling, or other materials



**Boring Method** - involves boring under the watercourse from a pit on one side of the watercourse to a pit on the other side, with, or without casing. This method is suitable in situations where the bed of the watercourse cannot be disturbed and where the water table is low. (Also known as the Auger method.)

Advantages:

- no sedimentation
- no disturbance of stream bed
- no bank disturbance
- maintains normal channel flow
- maintains fish passage

Disadvantages:

- pits may need pumping dry onto surrounding land
- possibility of sump water causing sedimentation of watercourse
- deep pits cause disturbance of approach slopes
- possibility of pits caving in

Advantages:

- no sedimentation
- no bank disturbance
- no stream bed disturbance
- maintains normal channel flow
- maintains fish passage
- can be used to avoid working on unstable slopes

Disadvantages:

- disturbance of drilling and target area
- disposal of drilling fluids
- fractures in substrate may release pressurized drilling fluids into watercourse

**Directional Drilling** - accomplished by setting up a drill rig on one approach slope and drilling to a target on the opposite approach slope. Can be used in large watercourses with sensitive aquatic habitat and where there is no instream activity allowed.

**Coastal Waters Bed Method** - involves laying the weighted line on the bed of the watercourse. The cable/line is buried only on the slopes and banks. This method is used in deep watercourses where there is no chance of damage from anchors or dredging.

Advantages:

- little bed disturbance
- limited sedimentation
- maintains channel flow
- maintains fish passage

Disadvantages:

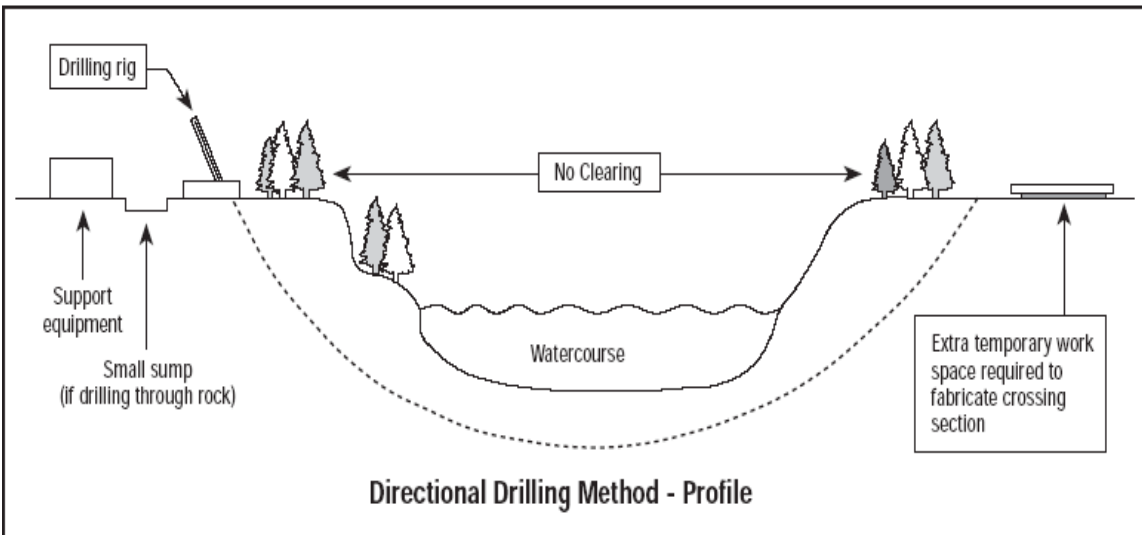
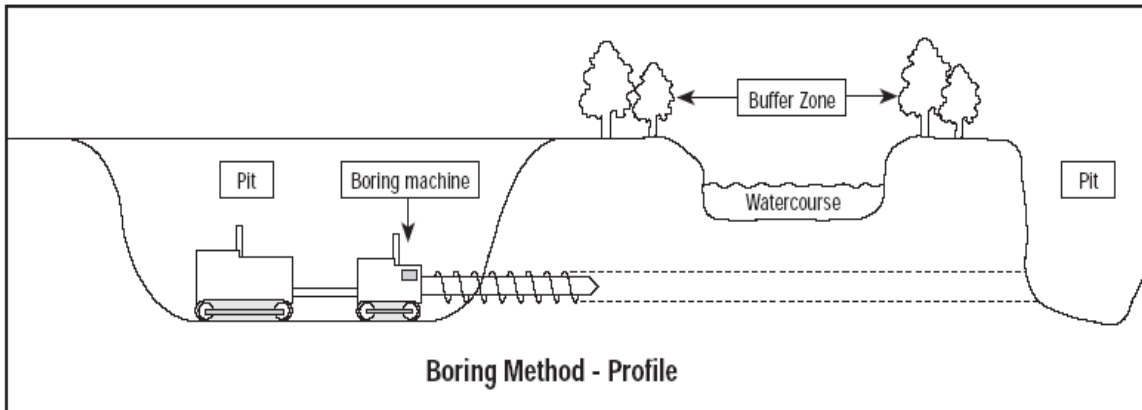
- risk of damage to the pipeline/cable
- potential introduction of product into watercourse due to third party damage
- maintenance impacts

1. a plan, profile, and cross sectional drawing to scale of the pipeline or cable crossing including a description of the site characteristics (i.e., approach slope and bank stability, water depth, height of banks and erosion potential); and
2. a complete description of the proposed construction method and timing of project activities.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:



### Other Government Agencies Involved

1. The approval of *Transport Canada*, which administers the Navigable Waters Protection Act, is required for any structure to be placed in or across any navigable waters.
2. *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.

### Guidelines

The in-stream work should be carried out in isolation of stream flow (in the dry).

Before starting construction, salvage fish from behind coffer dams and diverted areas and return them to the downstream portion of the watercourse.

Material removed from the bank of the watercourse must be stockpiled and the bank restored and stabilized to prevent erosion after the pipe is installed.

The portions of the backfilled trench within 15 metres of the watercourse upon which vegetation cannot be established must be covered with rip-rap to help prevent erosion of the fill material.

The excavated trench on the landward side of the rip-rapped area is to be seeded and mulched to prevent erosion.

Excess backfill material is to be disposed of such that it cannot enter the watercourse or adjacent wetland during periods of high flow or be carried to the watercourse or wetland by surface runoff.

The removal of vegetation for the pipeline or cable crossing installation must be limited to

the width of equipment required to carry out the project.

The removal of vegetation for the pipeline or cable crossing installation should not occur until all material and equipment is on site ready to begin the actual crossing work.

All exposed soil must be seeded and/or stabilized immediately following completion of activities. Vegetate all disturbed bank and riparian areas to prevent soil erosion and to help seeds germinate. If there is insufficient time (at least four weeks) in the growing season remaining for the seeds to germinate, the site should be stabilized (e.g., cover exposed areas with erosion control blankets to keep the soil in place and prevent erosion) and vegetated the following spring.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall) if the work is to be carried out in the immediate vicinity.

If it is not buried, the pipeline must be weighted (i.e., ballasted) to prevent it from floating.

Water from conduit trenches draining to a watercourse must be trapped and pumped to a settling pond or filtered through a vegetated area.

The trench in and adjacent to the watercourse or wetland must be refilled with material that was excavated and the original grading and elevation restored; where rock was removed, gravel fill or clean quarried rock material may be used.

All trenching methods require the trench to be back filled and stabilized after the pipeline/cable has been placed.

All in-stream work should be scheduled to be performed during periods of low flow unless the installation technique involves no in-stream work such as the directional drilling or boring method.



Surface erosion must be minimized by stabilizing the backfilled trench as quickly as possible and installing sediment control devices to trap sediment until permanent vegetation has been established.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

**For Government Purposes**

Open Cut Category: All applications require a Regulatory and Advisory review.

Working in Isolation of Stream Flow (In the Dry) Category: All applications require a Regulatory review.

### **Purpose**

The purpose of this activity is to provide a short term, safe, sturdy, low maintenance and environmentally sound crossing structure with a waterway opening large enough to pass peak flows and prevent ice or debris jams.

### **Definition**

Temporary crossings are structures that provide access across the watercourse for a limited period of time (usually less than 60 days). They are generally used to provide working access to a crossing under construction, to maintain traffic flow for the general public during culvert or bridge repairs and to provide temporary access for the purposes of short term timber harvesting.

Temporary bridges are constructed or prefabricated structures used to provide short term access across a watercourse.

### **Environmental Protection Objectives**

- To maintain free, unobstructed fish passage through the crossing providing fish with migration paths for spawning, rearing, feeding and wintering.
- To prevent sedimentation of the watercourse as a result of construction, installation and removal of the structure.
- To prevent erosion of the banks and bed as a result of construction, installation and removal of the structure.

### **Planning Considerations**

Watercourse crossings impact the environment to some degree. Careful planning and design can minimize this impact. All watercourse crossings should be designed to alter the flow of the watercourse as little as possible, to retain natural stream morphology, and to preserve fish habitat and fish passage.

Temporary bridges have minimal impact on aquatic habitat and create minor disturbance to the bed and banks. They also pose the

least potential for creating a barrier to fish migration.

Poorly designed crossings can result in inadequate capacity leading to blockage followed by flooding, erosion and washouts. These impacts can damage aquatic habitat and physical property, endanger human life, and prevent the utilization of upstream habitat.

Route selection for access roads should be designed to minimize the number of watercourse crossings. The length of all watercourse crossings should also be minimized by planning to construct them at right angles to the watercourse.

Sites where the soils are unstable or erodible (fine sand, silt, or clay), or the watercourse meanders, should be avoided if possible.

### **Timing Considerations**

Temporary crossings are designed to accommodate peak flows, but only those expected to occur for a specified time period outside the spring freshet period. Permits for temporary crossings are generally granted for the low flow period and it is essential that they be removed immediately after the specified time period.

The conditions placed on construction activities are influenced by the time of year during which the crossing is to be installed and the length of time that the crossing will be in use. If the crossing is to be in use for a period which interferes with fish migration, spawning, egg incubation, spatfall, shellfish areas, or existing shellfish stocks the installation and maintenance of the crossing must be given the same environmental considerations as a permanent crossing. (See "Section 3.5 – Bridges".)

Time restrictions are placed on all watercourse and wetland permits. Temporary bridges can not be left in the water past the expiry date on the alteration permit, because the waterway opening was designed for a limited amount of time, possibly during low flow conditions. High flow conditions, such as spring runoff, could result in bridge washout.

**Sediment Control Considerations**

Excessive quantities of sediment entering the watercourse can severely impact the aquatic environment. Fine particles settling on the bed of the watercourse can negatively impact aquatic organisms and destroy fish spawning and rearing habitat. Large quantities of sediment may affect the hydraulic capacity of a watercourse by reducing the cross sectional area, increasing the potential for flooding.

Construction plans must take into account sediment control during all phases of the alteration and continue until all disturbed ground has been permanently stabilized. This will ensure that suspended soil particles in surface runoff water are trapped before being discharged into the aquatic environment.

Some simple and basic principles can be practiced when selecting and preparing a crossing site which will dramatically reduce the amount of suspended sediment in surface runoff. One such principle is to avoid sites with erodible and unstable banks. Scheduling work to take place during the winter or dry periods will decrease erosion of the disturbed area and minimize any rutting caused by heavy equipment traffic.

**Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. crossing location and dimensional sketch of the structure (including width and depth of the watercourse at the crossing site);
2. timing of installation and removal; and
3. a complete description of the proposed construction and removal methods.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Guidelines**

Stream crossing locations must be constructed in narrow reaches of the watercourse.

All temporary crossings should be constructed at right angles to the watercourse.

Tree and/or shrub cutting within the buffer zone to create the approaches to the temporary crossing must be kept to the minimum required to allow heavy equipment / other vehicles access. A maximum width of 4.5 m of live trees and/or shrubs may be cut down or traversed by heavy equipment / other vehicles to provide access to the temporary crossing.

For temporary bridges, the bedlogs and associated foundation or cribwork should be placed back from the stream bank a minimum of 30 centimetres.

The span of the temporary bridge must be wide enough to ensure that any work required to prepare a stable foundation does not result in any material entering the watercourse.

For projects other than forestry operations, standard techniques for sediment control, such as the use of temporary check dams, must be employed to prevent surface runoff from disturbed areas from introducing sediment directly into the watercourse.

For temporary crossings built for forestry purposes, brush/material mats must be placed across the approaches to the bridge. As these mats degrade, they must be immediately repaired by adding new brush/material.

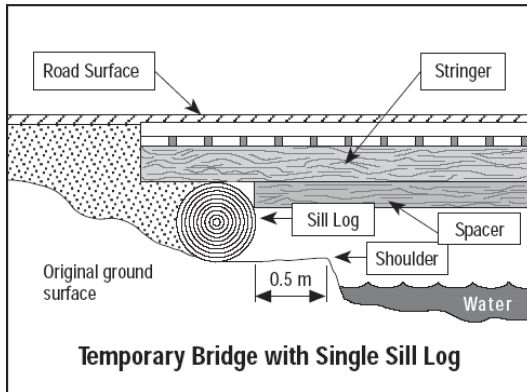
All ruts created by wood harvest or extraction within 20 metres of the watercourse must be stabilized with brush on the day that they are created.

For temporary crossings built for forestry purposes, a corduroy road must be constructed over all wet areas within 20 metres of the bridge approaches. The crossing must be used as little as possible in

wet weather to reduce the impact of vehicle traffic on the adjacent stream banks.

Temporary crossings built for forestry purposes cannot be left in place longer than 30 days without prior inspection and approval.

Minimize disturbances caused by the construction phase and stabilize the site immediately to prevent siltation of the watercourse.



No machinery may be stationed in the wetted portion of the channel; machinery operating from the shore, a trestle or a barge may reach into the water with an extension.

Washing of equipment, concrete forms or machinery must not take place in or adjacent to the watercourse.

Debris generated during the project must be prevented from entering the watercourse and disposed of in a provincially approved manner.

The structure must be completely removed when the project is completed (i.e., the approach material removed back to the original banks of the watercourse, the banks stabilized and all project materials removed within 15 metres of the watercourse).

**For Government Purposes**  
Applications for this activity require  
Regulatory Review

### **Purpose**

The purpose of a diversion is to relocate or straighten an existing watercourse in order to help prevent loss of property, to facilitate highway construction or repair, or to develop a bordering property.

### **Definition**

A **temporary diversion** is created by the installation of a temporary channel to re-direct the water flow which allows work to occur in the dry.

A **permanent diversion** is created by the excavation of a new channel which re-directs the existing watercourse and straightens a meandering reach of channel, shortening the overall length of the watercourse.

### **Environmental Protection Objectives**

- To minimize the length of the diversion.
- To minimize disruption to the hydraulic regime.
- To minimize removal of aquatic habitat.
- To minimize downstream erosion and sedimentation.
- To maintain unobstructed fish passage.

### **Planning Considerations**

In planning the design of a diversion, the natural meander pattern and physical characteristics of the channel (upstream and downstream of the proposed diversion) should be used as a guide, provided these sections of the channel are stable. This will lessen the disruption of the man-made structure on the hydraulic regime and fish and fish habitat.

Diversions may cause adverse impacts on the watercourse, including:

#### **1. Loss of Habitat**

Permanent diversions eliminate a section of natural channel and its corresponding

aquatic habitat (e.g., natural vegetative cover, bottom substrate). no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by *Fisheries and Oceans Canada* (DFO).

#### **2. Changes to Natural Water Flow**

Since the diversion is generally shorter and straighter than the meander it replaces, the slope of the new channel will likely be steeper resulting in an increase in water velocities. An increase in water velocities may result in impacts to fish and fish habitat (e.g., barrier to fish migration, loss of rearing/spawning grounds) and may cause undermining of the downstream banks.

#### **3. Erosion and Sedimentation**

An increase in water velocities may result in erosion of the new channel and downstream reaches of the watercourse. Unless carefully designed, constructed and stabilized, diversion channels may be a major source of sediment which can result in extensive downstream degradation of water quality and aquatic habitat.

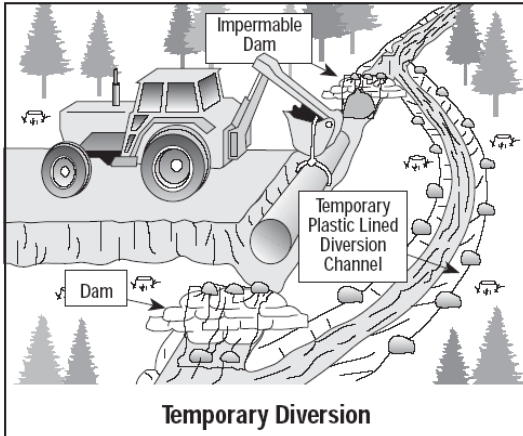
#### **4. Fish Stranding**

Fish may become trapped in isolated pools or stranded in the abandoned channel during the diversion activities. Note: Materials (e.g., nets, buckets) and adequate staffing will be required on site to rescue any stranded fish and relocate them to the main channel of the watercourse when the diversion takes place.

It is extremely difficult to recreate the characteristics of a natural channel; therefore, permanent diversions should only be considered if no reasonable alternative is available. Proposals for permanent diversions which decrease the length, steepen the profile, or alter the cross-sectional area of the existing channel may require a hydro-technical study.

Temporary diversions are generally constructed in conjunction with other watercourse or wetland activities (e.g., culvert replacement) to ensure that those activities are completed in isolation of

stream flow (in the dry). Depending on the scope of the project and site specific characteristics, some temporary diversion applications may be subject to the same consideration and guidelines as a permanent diversion.



### Application Requirements

In addition to the standard information required on the application form, **temporary diversions** and **permanent diversions** will require a copy of the following:

- 1) plan, profile, and cross sectional drawing clearly showing the size, shape, and alignment of the new and existing channel;
- 2) a full description of proposed construction methods including an erosion, sediment and water control plan.

**Permanent diversions**, in addition to the requirements listed above, will require:

- 1) the rationale for using a permanent diversion;
- 2) plan, profile, and cross sectional drawing to scale clearly showing the size, shape, and alignment of the new and existing channel extending a minimum distance of 30 metres upstream and downstream of the reach to be altered;

- 3) a description of the bed and bank material of the existing channel; and
- 4) a geotechnical survey along the existing and proposed new channels.

**Failure to submit required documents could result in the return of the application without it being processed.**

### Other Government Agencies Involved

- 1) *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act, no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained from *Fisheries and Oceans Canada* before the activity can occur.
- 2) The approval of *Transport Canada*, which administers the Navigable Waters Protection Act, may be required for permanent diversions.
- 3) Unless ownership rights were granted, lands below the high water mark are owned by the Province of Prince Edward Island. To verify land ownership rights, the proponent's original deed should be checked with the *Prince Edward Island Department of Finance*.

### Guidelines

The new channel must be excavated in isolation of stream flow (in the dry) from the downstream end. The existing channel must be left untouched until the new channel is completed and stabilized.

The upstream end of the existing channel must be closed off with non-porous material, and stabilized with non-erodible material.

Standard techniques for sediment control, such as the use of temporary check dams and/or silt fences, must be employed to prevent surface runoff from disturbed areas

from introducing sediment directly into the watercourse.

The approach angle at which the flow of the diversion enters an existing channel must not exceed a maximum of 15 degrees.

Where the diversion channel enters the existing watercourse, the bank must be stabilized with sufficient rip-rap to prevent erosion.

Construction of the diversion should take place during low flow conditions (between June 1st and September 30th).

Be prepared to relocate any fish that become trapped in isolated pools or stranded in newly flooded areas to the main channel of the watercourse.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall).

Stream banks of the permanent channel must be properly stabilized with vegetation, for example grasses, shrubs and trees. Vegetation must be maintained along the banks of the watercourse in sufficient quantity to provide adequate shade to prevent a rise in water temperature which could adversely affect the fish (finfish and shellfish), fish food and fish habitat.

The existing channel should be backfilled following a permanent diversion of the flow into the new channel.

The natural meander, depth and width of the existing watercourse (as it exists upstream and downstream of the proposed diversion) should be maintained throughout the permanent diversion.

When permanent re-channeling is permitted the diversion channel should mimic aquatic habitat features of the existing watercourse (pools, rock clusters, etc).

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

Contact the Prince Edward Island Department of Communities, Land and Environment well in advance of the work.

**For Government Purposes**

**Temporary Diversions:** Applications for these activities require Regulatory Review.

**Permanent Diversions:** Applications for these activities require Regulatory and Advisory Review.

### Purpose

The purpose of this activity is to improve or restore a watercourse's habitat for aquatic and wildlife species.

### Definition

Watercourse habitat improvement includes those activities and structures implemented to confine in-stream sediment, provide cover and habitat for fish and/or assist in natural channel formation. Structures/activities may include: cover structures, brush mats, digger logs, deflectors, and sediment traps. This section does not cover: stone pool creation, baffles and other fish passage improvement structures associated with existing watercourse crossings which are covered in "Section 3.7 – Culverts"; or woody debris removal which is covered in "Section 3.9 - De-Brushing or Woody Debris Removal".

### Environmental Protection Objectives

- To improve fish and wildlife habitat.
- To minimize disturbance to the watercourse.
- To ensure sustainability of wildlife populations in the area.
- To strike an appropriate balance between alteration and preservation of habitat.
- To minimize disturbance to natural stream characteristics.

### Planning Considerations

Due to the differences in natural stream characteristics, topography, aquatic species present and the type of soil and bedrock in different areas, the same enhancement techniques are not applicable in all Island watercourses. Some instream structures provide only short-term benefits and have high maintenance requirements.

Habitat enhancement is directed at specific species and localized areas. Care must be exercised to minimize adverse effects to other indigenous species and the remainder

of the watercourse. For example, construction of habitat improvement devices may constrict water flow, accumulate debris or cause habitat degradation.

Before undertaking any specific habitat improvements, applicants should:

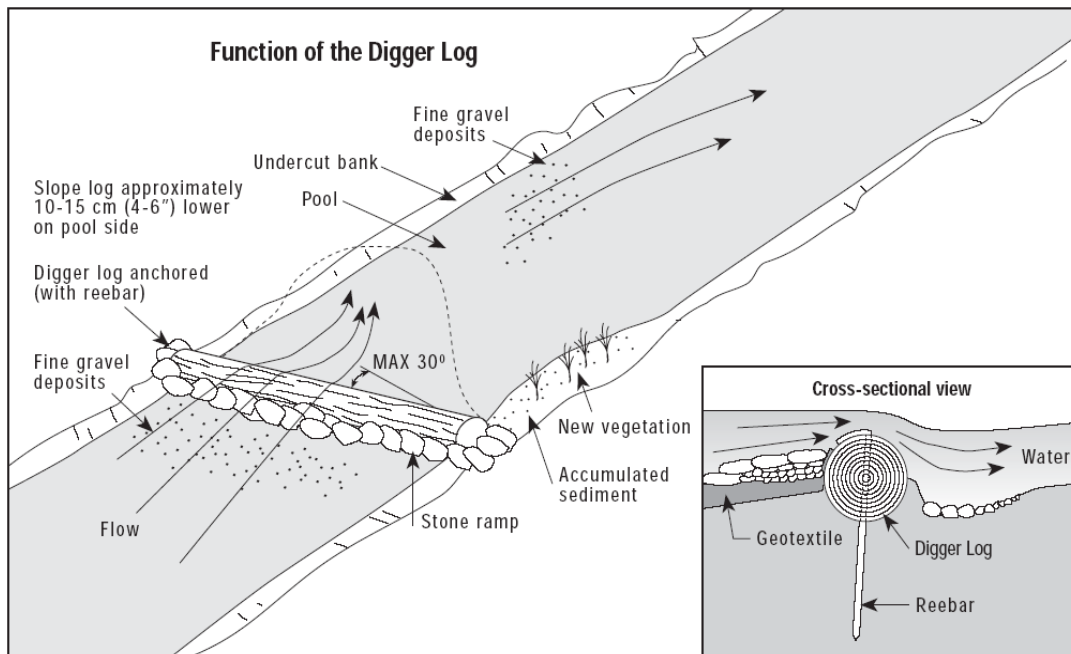
- contact the *Department of Communities, Land and Environment* well in advance of the commencement of work;
- consider all species of fish and wildlife that utilize the area; and
- consult with local interest groups or stakeholders.

Most projects will require a habitat survey to identify limiting or impacting factors (e.g., habitat biology, stream hydrology and hydraulics) which will need to be addressed. Survey results will assist in the provision of the best advice (i.e., types, locations, dimensions, associated mitigation for the construction, and the ongoing operation phases of the structure).

The type of instream habitat improvement device chosen depends on the watercourse and the condition of the watercourse. A brief description of some of the structures commonly used on Prince Edward Island and the advantages and disadvantages are outlined below:

1. Digger Logs – This common habitat improvement technique has been shown to mimic natural log processes in a stream environment. After assessing the stream and determining their location, digger logs can utilize the stream's energy to provide a scour pool for trout rearing and feeding, assist in re-establishing a meander pattern to a watercourse, provide a method of sorting the streambed material for potential spawning sites and provide oxygen entrapment to improve water quality. Digger logs are used to create, restore and maintain holding pools for fish.





Digger logs are best used in:

- smaller streams up to approximately five (5) metres in width;
- areas lacking stream meander as they help to restore the riffle-pool sequence;
- in moderate to high gradient streams.

**Advantages:**

- inexpensive, most material can be acquired near the site;
- immediate results, pools and turbulence for cover are created quickly;
- helps restore stream meander; and
- sorts sediment from the substrate.

**Disadvantages:**

- stream bank may erode if the log is not properly installed or maintained;
- may reduce or impede passage for smaller fish if not installed or maintained properly;
- must be properly designed and placed to be effective; and
- must not be used in tidal waters or in heavily silted sections of a stream.

2. **Brush Mats** – Coniferous trees or limbs can be secured along the bank of the watercourse to capture and confine sediments, narrow the channel and provide shade, cover and habitat for fish.

**Advantages:**

- natural in appearance;
- can use on-site materials; and
- provides immediate results.

**Disadvantages:**

- ability to capture sediment will decrease with time;
- proper design, location and anchoring is critical to avoid impacts to downstream structures; and
- can collect debris.

3. **Bank Cover** – These are permanent structures constructed of wood or concrete on the outside of a bend in a stream to provide cover. They are used to mimic bank undercutting and provide

hiding and escape cover for both juvenile and adult fish.

**Advantages:**

- provides an abundance of hiding places for fish;
- can protect stream banks from further scour or erosion; and
- provides a good use for dead wood and stumps (materials can be accessed locally).

**Disadvantages:**

- can catch debris and ice if not placed properly;
- if improperly installed may constrict flow;
- narrow the navigable channel; and
- may require annual maintenance.

4. Deflectors – Structures can be built using coniferous trees, logs or rocks to assist in sediment redistribution and deposition, narrow and deepen the stream channel, create holding pools, trap fine sediments, bank reformation and assist in re-establishing a natural stream meander pattern.

**Advantages:**

- moderately long lived; and
- natural in appearance and uses local materials.

**Disadvantages:**

- requires considerable
- experience to determine the proper location (placement is critical and extensive planning is

required);

- work can be intensive if the structure is to be back filled with rock; and
- stream bank may erode if the deflector is not properly installed or maintained.

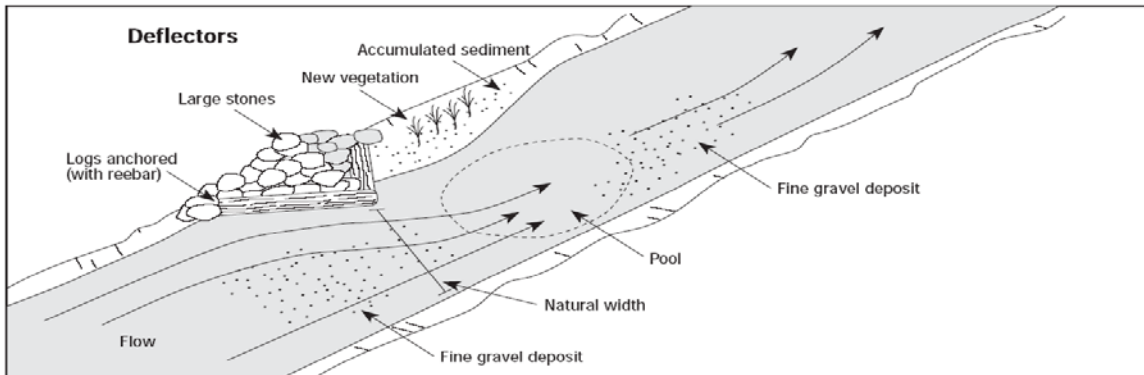
5. Cover Logs – These structures are permanently affixed to the stream bottom to provide instream, overhead cover for fish. The two types most commonly used on Prince Edward Island are the half cover log and the whole cover log.

**Advantages:**

- can be accomplished using local materials;
- simple, as well as inexpensive; and
- easy to transport and install.

**Disadvantages:**

- logs placed in the stream may catch debris;
- may present a “challenge” for anglers and canoeists;
- wooden cover may be displaced by ice or high water conditions; and
- navigation and safety risk if pins are not bent properly.



6. Instream Boulder Cover – Boulders may provide increased holding and feeding cover for various age classes of fish and spawning cover for adults. Boulders may be used in the following conditions:
- In or near the channel, in streams wider than three (3) metres;
  - In sections of the stream where water velocity keeps rocks free of sediments;
  - Best used runs, or the tails and heads of pools, not riffles.

**Advantages:**

- can use local materials;
- simple, inexpensive, long lasting; and
- increases habitat for aquatic insects and fish production.

**Disadvantages:**

- boulders are heavy, hard to transport, and relatively rare in Island streams;
- may become buried if placed in the wrong site; and
- danger to navigation.

7. In-Stream or By-Pass Sediment Basin (Trap) – These structures are sometimes used by community groups to remove accumulated sediment bedload from the watercourse. This is achieved by either installing a sediment basin within the channel of the existing watercourse or installing a sediment basin adjacent to the channel of the existing watercourse and permanently diverting the flow of the water via the sediment basin to capture and accumulate sediments. **Site selection is key to this type of alteration and should only be chosen in an area with marginal habitat characteristics prior to the sediment basin installation.** The chosen site should be readily accessible for heavy machinery to enter the area and perform installation and/or maintenance activities. As part of the application process, applicants must submit a Fish Habitat Management Plan and a Review and Assessment of Low Risk Sediment Traps form.

**Advantages:**

- work can be completed in isolation of water flow (in the dry);
- easy to maintain;
- reduces downstream sediment accumulation; and
- provides immediate results.

**Disadvantages:**

- expensive;
- has to be maintained frequently;
- can't be used in areas of high water velocity;
- loss of existing, natural aquatic habitat; and
- short term public safety issues.

8. Rock pools – Rock pool structures are often used to provide fish passage over an instream obstruction. One or more rock pools can be used to provide a step or series of steps over a natural or man-made barrier. For additional information refer to Section 3.7 on culverts.

**Advantages:** can back up water to improve fish passage at culverts; can be made to look natural in appearance.

**Disadvantages:** can create additional fish passage problems if not installed properly; require ongoing maintenance; require detailed plans for permit approval; may require heavy equipment to place rocks.

**Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. a full description of the proposed technique(s);
2. a sketch of the proposed works in relation to the watercourse (including pictures of the proposed site and location of the habitat improving structures);
3. a full description of construction methods and materials; and
4. a rationale for the project (this should be included in the Fish Habitat

Management Plan for sediment trap proposals).

**Failure to submit required documents could result in the return of the application without it being processed.**

**Other Government Agencies Involved**

1. Navigable Waters Program of *Transport Canada* may become involved should the proposed structure be located on navigable water.
2. *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act, no person shall carry on any work or undertaking that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.

**Guidelines**

Obtain site specific advice from professionals with expertise in this field.

Obtain landowner permission before carrying out the activity.

Instream structures should be able to withstand normal flooding and should be functional over the intended lifespan of the structure.

Vegetation must be maintained along the banks of the watercourse in sufficient quantity to provide adequate shade to prevent a rise of water temperature which could adversely affect the fish (finfish and shellfish), fish food and fish habitat.

Periodic follow-ups should be conducted to ensure the effectiveness, integrity and safety of the structure(s).

Changes in the stream, localized scour and accretion in response to the structure(s)

should be monitored to assist with improving the technique.

Materials used in the construction of habitat improvement structures must not be obtained within 15 metres of the watercourse.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall).

For activities that require heavy machinery, equipment is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

**For Government Purposes**

Applications for this activity require Regulatory and Advisory Review.

**Purpose**

The purpose of this activity is to withdraw a volume of water from a watercourse or wetland.

**Definition**

Water intake structures are used to withdraw water from a watercourse or wetland for the purpose of irrigation, domestic supply, manufacturing, fire fighting, aquaculture facilities, or other uses.

**Environmental Protection Objectives**

- To minimize disturbance to the bed and banks of the watercourse during installation.
- To prevent the entrapment, entrainment and impingement of fish.
- To minimize siltation of the watercourse or wetland during construction and maintenance.
- To maintain sufficient flow and depth of water for provision of fish habitat and downstream water users.
- To ensure that fish habitat is protected, and fish passage is maintained.

**Planning Considerations**

Whether the water is withdrawn from a flowing watercourse or a standing body of water such as a pond, the following concerns must be addressed before the project begins:

- 1) The rate of water withdrawal (pumping rate) must not cause any finfish or shellfish to be removed from their habitat. The intake must be screened to prevent these organisms from entering the structure. Sufficient screen area must be provided with openings to ensure that approach velocities for finfish are less than 0.15 metres per second.

- 2) The volume of water remaining in the watercourse or wetland must be adequate for the maintenance of aquatic habitat and fish passage. Decreasing the volume of water may result in an increase in temperature, making the water intolerable for some species of fish. A decrease in water flow can also diminish suitable fish habitat and accelerate sediment deposition.
- 3) Water intake structures must be installed so that they do not present an obstruction to migrating fish.
- 4) Any disturbance caused by installation must be stabilized immediately to prevent the sedimentation of the watercourse or wetland which could negatively impact fish habitat.
- 5) The quantity and quality of the water at the site and downstream of the site must be maintained during and after water withdrawal.
- 6) Water returned to a watercourse after use should conform to provincial effluent standards. The temperature of return water may be a concern and will be evaluated on a case by case basis.

**Maintenance Flow**

For flowing bodies of water the acceptable rate of water removal, or the pumping rate, is dependent upon the amount of water available. A certain rate of flow must be maintained downstream of the water intake. This rate is known as maintenance flow and is unique to each site. Since fresh water flow fluctuates on a seasonal basis, acceptable rates of maintenance flows are based on the time of year.

Maintenance flow is not required, when:

- water is withdrawn and returned to the watercourse or wetland upstream of the intake,
- water is withdrawn from bays, estuaries or other saltwater environments.

Mean Value of the Specific Monthly Flow (m<sup>3</sup>/s.km<sup>2</sup>) in PEI

Month	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Value	0.0181	0.0152	0.0198	0.0416	0.0266	0.0168	0.0119	0.0094	0.0082	0.0088	0.0125	0.0164

The effect of water removal is site specific and each case must be considered on an individual basis.

The most commonly used method of determining maintenance flow requirements is calculated as 70 % of the median flow, as derived from the nearest *Environment Canada* gauging station. Depending on the time of year there is a significant difference of flows on a per square kilometre basis. In a case of large difference in flow, *Fisheries and Oceans Canada* requires that the largest of the flow derived from the two nearest gauging stations be utilized for calculations.

**Water Requirements**

Determination of allowable pumping or water withdrawal rates must consider the time period for which the water is needed. **Many water withdrawal projects (including irrigation) require water during dry seasons, during which the required maintenance flow may not allow for the removal of any water.** If stream flows approach maintenance flow thresholds all seasonal agricultural irrigation will cease and active permits will be revoked. Irrigation users will be shut down as outlined in the “Agricultural Irrigation Policy” (1995) under the “Cessation of Extraction Under Low Flow Conditions” section. Please refer to the “Agricultural Irrigation Policy” as detailed in Appendix F.

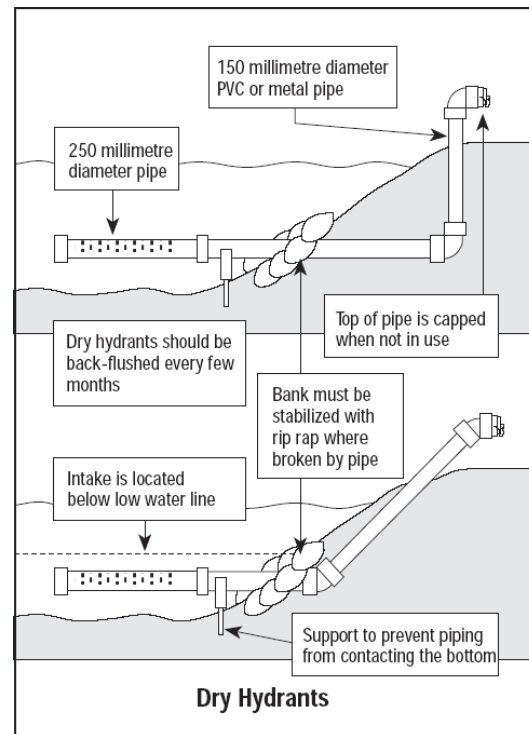
If the withdrawn water is to be used on a continual basis (i.e., fish hatchery) a calculation of the low flows expected for the watercourse or wetland at the point of withdrawal is used to predict whether or not the maintenance flows allow for any water removal during the low flow period.

As per the “Agricultural Irrigation Policy”, one must keep in mind the overall water budget for each watercourse. The

cumulative impacts of multiple water extractions on aquatic life must be examined. Requests for extractions cannot be treated in isolation, they must be considered in relation to the overall water budget.

**Exploration Drilling**

If the water is being withdrawn for drilling exploration work, applications will be submitted to the Environmental Permitting and Legislation Section of the *Prince Edward Island Department of Communities, Land and Environment* and will be subject to an Environmental Impact Assessment.



**Dry Hydrants**

Dry hydrants are water intake structures consisting of a standpipe buried in the bank of a watercourse or wetland with a horizontal pipe connected to the bottom end which extends into the watercourse or wetland. The end of the pipe must be screened in

accordance with the specifications outlined for all water intake structures, and the structure is subject to all rules and regulations governing water intake structures. Water is withdrawn from a dry hydrant on an 'as needed' basis often by a mobile pump carried on a fire truck.

### **Application Requirements**

In addition to the standard information required on the application form, the following must be included:

1. proposed pumping rates and schedule with specified dates and times;
2. description of equipment (e.g., type and size of pipe, intake screen and mesh size, flow meter);
3. description of proposed construction methods;
4. elevation of intake if a dry hydrant is proposed.

Hydrological data and calculations may have to be submitted in order for the regulatory agencies to determine the appropriate maintenance flows.

**Failure to submit required documents could result in the return of the application without it being processed.**

### **Other Government Agencies Involved**

1. In some cases, a representative from either *Fisheries and Oceans Canada* or the *Prince Edward Island Department of Communities, Land and Environment* may visit the site to determine maintenance flow requirements or allowable pumping rates from a flowing watercourse.
2. Fisheries and Oceans Canada (DFO) is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act, no person shall carry on any work or undertaking that results in

serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery unless it has been authorized by DFO. Authorization, if required, must be obtained before the activity can occur.

3. The approval of *Transport Canada*, which administers the [Navigable Waters Protection Act](#), must be obtained when a structure is to be placed in or across any navigable watercourse.

### **Guidelines**

Screens are generally constructed on a rectangular frame.

The Watercourse, Wetland and Buffer Zone Activity Permit may require that a staff gauge be placed in the watercourse immediately downstream of the water intake.

For irrigation purposes, each pump is required to have a flow meter capable of instantaneous and cumulative flow measurement. These measurements must be recorded and submitted to the *Prince Edward Island Department of Environment, Labour and Justice*.

The water intake and outfall structures must be constructed with bed and bank protection to adequately protect the watercourse and intake works from erosion.

The design and location of the intake structure must ensure that a uniform flow distribution is maintained through the total screen area.

Not more than one third (1/3) of the stream width may be obstructed by the intake.

The water intake structure must not pose a hazard to navigation.

Intakes should be constructed such that they do not obstruct fish passage in a stream.

A double set of guide slots positioned back to back is to be provided for the screen panels. The screen panels should fit snugly in the guides so that spaces larger than the clear openings in the mesh do not occur.

The water intake and outlet pipes of by-pass ponds must be screened to prevent entrance of fish and the escape of cultivated fish (i.e., aquaculture operations).

The screen material must be stainless steel, galvanized steel, aluminum, brass, or bronze. Stainless steel is preferred since corrosion is greatly reduced.

For appropriate screen sizes refer to the Freshwater Intake End of Pipe Fish Screen Guideline (March, 1995).

Screen panels or screen assemblies must be readily accessible and removable for cleaning, inspection and repairs. The screen must be cleared of debris at regular intervals. A spare screen should be available for maintenance purposes.

Intakes should be constructed with a minimum of disturbance and the intake or discharge area should be stabilized and reseeded immediately after construction is completed.

For permanent installations, a trash rack should be installed to protect the screen panels from damage caused by floating debris or ice.

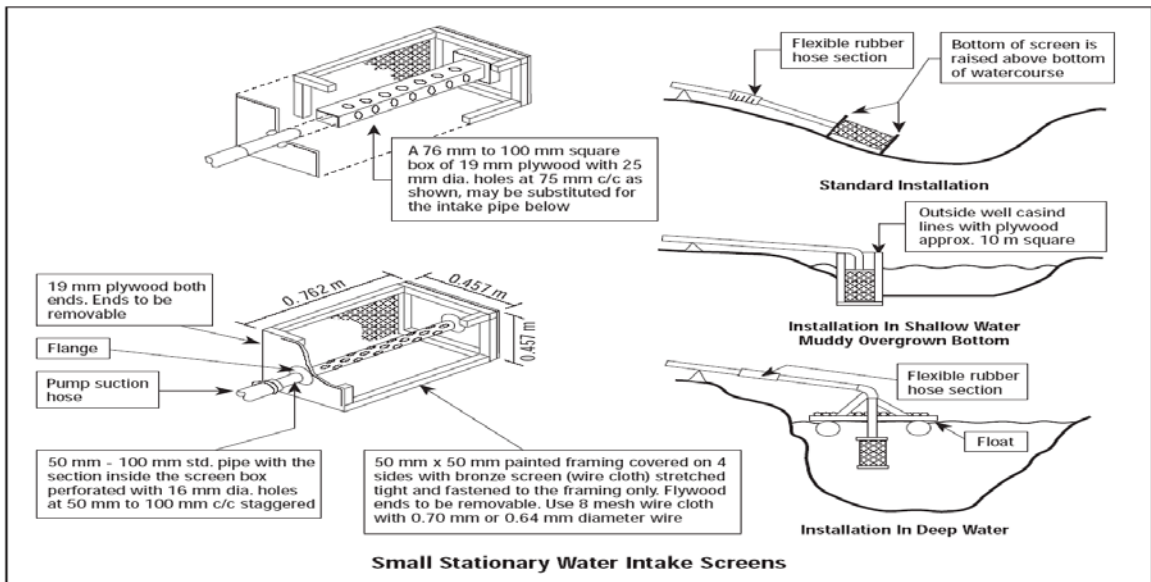
Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall).

**For Government Purposes**  
 Applications for this activity require Regulatory, and in some cases Regulatory and Advisory, Review.





**Purpose**

The purpose of this activity is to create, improve or maintain habitat in an existing wetland or in an area where there are poorly drained soils in order to provide and enhance escape-cover, food and nesting sites for waterfowl or wildlife.

**Definition**

A wetland enhancement pond is an excavated pond, in an area of land that is covered by water for all or part of the year (i.e., fresh water marshes, bogs, shrub swamps). This activity does not cover ponds with inlet or outlet channels connecting the pond to a watercourse which are covered in "Section 3.6 – By-Pass Ponds".

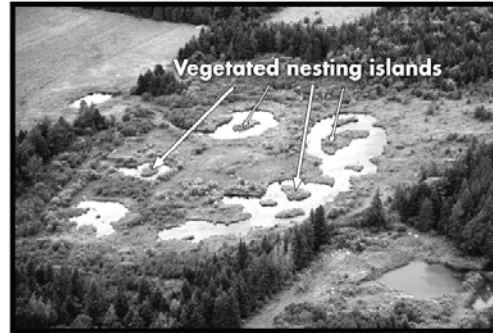
**Environmental Protection Objectives**

- To prevent sedimentation of a natural watercourse during construction.
- To minimize disturbance to existing waterfowl, wildlife or surrounding wetland habitat.
- To prevent the release of any deleterious substances into the wetland during construction.

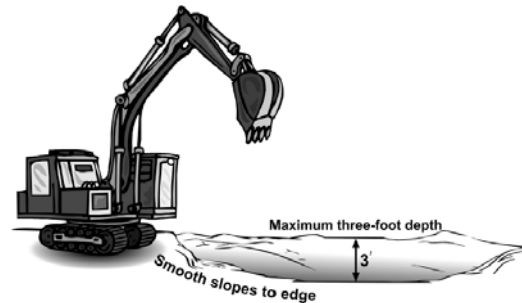
**Planning Considerations**

Wetland enhancement activities should be carried out taking into consideration the lifecycle and needs of waterfowl and wildlife in the area. For example, the noise from heavy machinery operation can cause waterfowl to abandon nests while the placement/shape of ponds can impact the suitability of the pond to certain waterfowl species. Generally wetland enhancement ponds may be constructed from September 1<sup>st</sup> to December 1<sup>st</sup>.

Vegetated islands may be constructed within the wetland to provide nesting or escape cover for waterfowl. These islands should be located in an area of the wetland pond that is inaccessible to predators.



Sites for wetland enhancement ponds should be chosen with soils capable of retaining water in order to maintain an adequate water depth throughout the nesting season. A suitable water depth, typically 50 to 100 centimetres (0.5 to 1 metre), is important to establish vegetation and aquatic organism populations.



Ponds are typically located in an existing wetland or in an area where poorly drained soils exist. The work is generally not permitted in areas where threatened, endangered or plant species of special concern have been identified.

**Applicants should bear in mind that once a pond has been created, its classification category (and buffer zone requirements) may change under the Environmental Protection Act, Watercourse and Wetland Protection Regulations**

**Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. location where the proposed enhancement activity is to occur;

- 2. dimensional sketch clearly indicating the size of the pond and a cross sectional view showing depth;
- 3. spoil deposition location;
- 4. construction methods and machinery;
- 5. distance from any nearby watercourses;
- 6. timing of the proposed activity;
- 7. proposed route for machinery to access the site.

**Failure to submit required documents could result in the return of the application without it being processed.**

**Guidelines**

The minimum distance from the constructed pond to a watercourse must be 15 metres.

The average depth of the pond should be approximately 50 to 100 centimetres (0.5 to 1 metre).

The side slopes of the constructed pond should have a gentle grade to allow waterfowl easier access and to create a natural growth of vegetation along the edge.

All work must be carried out in a manner which would minimize disturbance to the surrounding area, including machinery access and deposition of spoils.

Spoil material must not be deposited where it can enter a nearby watercourse, or disturb an adjacent wetland.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service machinery and store fuel and other materials for the machinery away from the water to prevent any deleterious substance from entering the water.

Keep emergency spill kit on site in case of fluid leaks or spills from machinery.

**For Government Purposes**

Applications for this activity require Regulatory Review

**Purpose**

The purpose of this activity is to provide areas on a shoreline for watercraft to land and embark under a controlled and stable regime, while minimizing the navigational hazard and disturbance to the aquatic habitat.

**Definition**

Wharves and piers are permanent structures located along the shore of navigable waters used for swimming and/or boat mooring. Slipways are constructed ramps leading into a watercourse for the purpose of loading and unloading trailers with boats.

**Environmental Protection Objectives**

- To prevent erosion and sedimentation as a result of the construction process.
- To prevent the loss of wildlife/aquatic habitat.
- To minimize shoreline disturbance.
- To prevent water pollution at wharves and other marine facilities.
- To minimize the impact on navigational safety.
- To minimize the impact on existing shellfish resources.

**Planning Considerations**

Applicants are advised that a proposal for a new recreational wharf or pier will generally not be approved due to the concerns noted above. Applications for a new recreational slipway will be assessed in part based on the availability of a public boat launch in the area.

Structures placed or built in the shallow waters bordering the banks of a watercourse may pose a threat to the sensitive near shore zone. The near shore zone is often an area of high food productivity, because primary food production is initiated by the

penetration of light, acting as a source of energy for algae and aquatic plants. The near shore zone also provides important spawning and nursery habitat for many species of fish and shellfish.

In some near shore areas where the fish habitat is unique or critical, shoreline development may not be permitted. For other near shore areas, shoreline development should be limited or designed such that there is a minimal impact on habitat. The installation of the wharf or pier might infill critical fish habitat or the natural movement of water and sediment may be interrupted by the structure, resulting in erosion or sedimentation of nearby habitat.

Shellfish harvesting within 125 metres of every wharf and pier may be prohibited as outlined in Section 4.1.3.5 of *the Canadian Shellfish Sanitation Program Manual* due to potential contamination of shellstock from the materials used during construction, from human activity associated with the completed structure or from faecal wastes from animals attracted to the structure. All new docks, wharves, piers including floating docks, are subject to review to determine any potential impact upon shellfish aquaculture and harvesting activities.

The wharf or pier may have the following effects on the hydraulic regime:

- Water current patterns could be changed and, if the structure occupies a significant portion of the channel cross-section, the backwater effects upstream of the structure should be taken into consideration.
- Wharves or piers may increase the possibility of ice jamming.

An assessment of the fish habitat and hydraulic conditions should be undertaken before plans for constructing the wharf, pier or slipway are made. Recreational development of the shoreline for wharves or piers are generally not permitted. Where possible, to reduce the number of wharves, existing public facilities should be utilized

and boat docking facilities should be shared by neighboring property owners.

Boat launch ramps/slipways should be located at stable sites to control shoreline erosion and sedimentation. Slipways require a stable travel surface to ensure vehicles do not become stuck while utilizing the ramp. Approaches should be fairly flat to reduce the chances of vehicles spinning and destabilizing the area.

Depending on the nature of the existing shoreline, dredging may be required to prevent the release of a "mud wave" as the infill material displaces the underlying, soft, mobile shoreline bottom. Impacts of a mud wave can extend for a considerable distance away from the initial infill location. If it is necessary to dredge, the material should be replaced with a clean bed of compacted gravel. For more information on dredging guidelines refer to "Section 3. 10 - Dredging".

The installation and use of wharves and piers may damage the sensitive near shore zone. If the amount of sediment released into suspension by the installation of the structure is excessive, fish habitat can be degraded. In the construction phase, there is also the potential for the release of contaminants associated with disturbance of fine grain sediment or the accidental spill of fuels or lubricants. There must be contingency plans in place to address these potential threats to aquatic habitat and water quality.

Guidelines for construction activities are site specific. Excavation for supports, where necessary, may require the use of a cofferdam to prevent siltation of the watercourse. In some cases, working during low water periods without the use of heavy machinery is sufficient to protect the watercourse and aquatic habitat in a particular area.

Construction of a boat launch ramp/slipway should be done in a manner that minimizes the amount of excavation required. This will reduce the risk of sediment entering the watercourse or wetland. The approaches to the launches/ramps can be stabilized by

adding clean gravel, concrete slabs or curbs. Asphalt can be utilized above the high water mark.

Wharves and piers supported by posts generally have little impact on the near shore/littoral zone depending on the number and size of posts, quality of fish habitat present and construction methods. Crib supports may impact the near shore/littoral zone because of the relatively large area that they cover. They may also interfere with water movement leading to a degradation of water quality.

Solid structures supported by concrete, sheet piling or cribbing are constructed so that there is no open space between the supporting members. Area lost when covered by these supporting members could constitute a loss of fish habitat. Water movement is also inhibited by these structures which may affect water quality, erosion and deposition patterns, and food availability for the near shore/littoral zone.

Slipways are structures constructed landwards of the waters edge and at an elevation completely above the water level at the time that the project is carried out. These structures generally have little impact on the near shore/littoral zone.

### Application Requirements

In addition to the standard information required on the application form, a copy of the following must be included:

1. Construction plan, profile and cross sectional drawings (including dimensions) to scale;
2. Pictures of area where the wharf, pier or slipway is to be constructed;
3. A full description of the proposed construction method and materials;
4. Timing and scheduling of the proposed activity;
5. A description of all equipment and methods to be used;

6. Contingency plan in the event of an accidental fuel or lubricant spill; and
7. If dredging refers to requirements in "Section 3.10 – Dredging".

**Failure to submit required documents could result in the return of the application without it being processed.**

### **Other Government Agencies Involved**

- 1) Unless ownership rights were granted, lands below the normal high water mark are owned by the Province of PEI. To verify ownership rights, the proponent's original deed should be checked and the lot should be surveyed.
- 2) The approval of *Transport Canada*, which administers the Canadian Navigable Waters Act must be obtained when a structure is to be placed in or across any navigable watercourse.
- 3) *Fisheries and Oceans Canada (DFO)* is responsible for protecting fish and fish habitat across Canada. Under the Fisheries Act, no person shall: carry on any work, undertaking or activity that results in the death of fish, other than fishing; carry on any work, undertaking or activity that results in the harmful alteration, disruption or destruction (HADD) of fish habitat; and/or cause an obstruction to the free passage of fish. Proponents requesting exemption from the death of fish, HADD and fish passage prohibitions must apply for a formal Fisheries Act authorization from the Minister of Fisheries and Oceans Canada. Contact information for the DFO Fish and Fish Habitat Protection Program on Prince Edward Island: Fish and Fish Habitat Protection Program, Fisheries and Oceans Canada, 343 University Avenue, Moncton NB E1C 9B6, Telephone: 1- 506-851-2824 Email: gulfhabitatgolfe@dfo-mpo.gc.ca

### **Guidelines**

Wharves, piers, and slipways should not be situated immediately adjacent to critical fish habitat or shellfish grounds since *the*

*Canadian Shellfish Sanitation Program* may prohibit harvesting of shellfish within 125 metres of every wharf, pier and floating dock.

The wharf or pier must not encroach into the navigation channel or obstruct navigation.

When building or repairing wharf facilities use only cured and dried treated timber. Creosote timber is not permitted in the aquatic environment.

All treated wood must be air dried for a period of at least 6 months prior to construction. Touch-up painting of cut ends should be carried out away from the water and allowed to dry for a minimum of one week prior to being re-used.

All concrete used must be pre-cast. Pre-cast concrete must be cured for a period of at least three weeks before being placed in the watercourse.

Boat launch ramps/slipways must be stabilized with clean, non-erodible, non-ore bearing material.

Machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

Timing of work must not coincide with periods of increased sensitivity for fish (i.e., spawning and egg incubation) or shellfish (i.e., spatfall) (See Appendix A).

Recycled materials such as old metal drums or tires should not be used because they may contain substances harmful to water quality and aquatic life. Plastic drums used for dock flotation must be clean and sealed before placement in the water.

Surfacing material for slipways can include crushed gravel/shale, asphalt millings and concrete. Asphalt millings used for surfacing material must not extend seaward beyond the high water mark.

**For Government Purposes**

**Wharves and Piers:** Applications require Regulatory and Advisory Review.

**Slipways:** Applications require a Regulatory Review.

### **Purpose**

This section covers cutting of trees and shrubs in a buffer zone for:

- restoration of Acadian forest,
- creation of a water view,
- creation of a walking trail,
- removal of a potential hazard,
- removal of diseased and dying trees,
- removal of dead trees
- removal of exotic species,
- removal of trees that are partially down.

**Generally, the cutting down of live trees and shrubs within a buffer zone (other than for purposes as listed above) is not permitted on Prince Edward Island.**

### **Definition**

**This activity does not require a permit/review:**

Removal of dead trees – The cutting and removal of non-living trees in a buffer zone. Note that a permit **is** required prior to operating machinery in the buffer zone.

**The following activities require a permit/review:**

Restoration of Acadian Forest – The selective cutting of individual, early-successional trees in a buffer zone and the planting of Acadian forest species in the opening(s) created by cutting.

Creation of a Water View – The cutting of a portion of the live trees and/or shrubs in a buffer zone in order to create an opening that provides a view of the water.

Creation of a Walking Trail – The selective, minimal cutting of live trees and/or shrubs in a buffer zone in order to create/maintain a walking trail.

Removal of a Potential Hazard – The selective cutting of an individual tree(s) in a

buffer zone which may pose a threat to life or property.

Removal of Diseased and Dying Trees – The cutting of diseased and/or dying trees in a buffer zone in an effort to prevent the spread of an infestation or realize economic benefits prior to further decline.

Removal of exotic species – The cutting of non-native trees and shrubs in an effort to prevent the spread of exotic species and/or restore native species. See the publication [Native Trees of Prince Edward Island and the More Common Woodland Shrubs](#) for information on native species. A paper copy can be obtained from the Forests, Fish and Wildlife Division.

Removal of trees that are partially down – The cutting of live trees that have blown or fallen down but are lodged and/or still alive.

### **Environmental Protection Objectives**

- To protect and maintain forested buffer zones surrounding watercourses and wetlands.
- To prevent the loss/degradation of wildlife/aquatic habitat.

### **Planning Considerations**

Prior to making application for tree cutting activities, consider the potential impact upon the buffer zone, watercourse/wetland and associated wildlife.

Areas where trees and shrubs have been cut down under Permit may not be grubbed or converted to other land uses.

Pruning of live trees and shrubs and planting of trees and shrubs using hand tools does not require a Buffer Zone Activity Permit.

Landowners are encouraged to leave a portion of any dead and/or dying trees standing where this will not compromise safety or the health of the remaining forest.

Many species of wildlife make use of dead and/or dying trees for feeding, nesting and denning sites.

### **Application Requirements**

In addition to the standard information required on the application form, a copy of the following must be included:

1. a sketch of the area where the activity is proposed;
2. a description of all equipment and methods to be used;
3. timing and scheduling of the proposed activity.

**Failure to submit required documents could result in the return of the application without it being processed.**

### **Other Government Agencies Involved**

- 1) The Department of Communities, Land and Environment - Forests, Fish and Wildlife Division may review any/all proposals to evaluate the impact of the proposed activity and determine replanting requirements.

### **Guidelines**

The area where live trees and/or shrubs have been cut down under Permit must not be converted from forest to other land uses (i.e. no removal of stumps, no landscaping, no addition of fill or other material, etc).

Native trees and/or shrubs must be utilized in all areas where replanting is required. In general, trees must be planted by hand and at a spacing of 1.5-2.0 m (2500/ha) apart. All trees planted must be a minimum of 60 cm in height.

The following native trees are approved for planting and restoration of an Acadian forest: White Pine, Eastern Larch, Yellow Birch, Red Maple, Red Oak, Ironwood, Eastern Hemlock, Red Spruce, White Birch, Striped Maple, White Ash, American Elm, Eastern White Cedar, Black Spruce, Sugar

Maple, Mountain Maple, Black Ash and American Beech.

Where a specific number of trees and/or shrubs have been cut down under a Permit, a ratio of 3 new trees and/or shrubs must be planted for every tree and/or shrub cut down.

All live trees and/or shrubs in the buffer zone (other than as specified in Permit conditions) must be maintained and not cut down or otherwise destroyed.

Cutting for a view (under Permit) is limited to properties bordering an estuary or coastal water body. The estuary or coastal water body must be a minimum of 15 m in width.

If the buffer zone is completely forested, a maximum of 1/3 of the shoreline length of the property (to a maximum of 15 m) may be cleared of live trees and/or shrubs (under Permit) to create a water view. The cleared area must not be converted from forest to other land uses (i.e. no removal of stumps, no landscaping, no addition of fill or other material, etc).

If the buffer zone is partially forested, a maximum of 1/3 of the shoreline length of the property (to a maximum of 15 m) may be cleared of live trees and/or shrubs (under Permit) to create a water view. The cleared area must not be converted from forest to other land uses (i.e. no removal of stumps, no landscaping, no addition of fill or other material, etc) and the property owner must offset the cleared area with the restoration of a treed buffer at a rate of 3 times the cleared area.

Minimal cutting of trees and/or shrubs may be permitted for creation/maintenance of a walking trail in the buffer zone. The width of trails must be kept to a minimum (generally 1-2 metres wide) and the trail must detour around live trees and/or shrubs as much as possible.



**For Government Purposes**

**Tree and/or Shrub Cutting:** Applications for this activity require Regulatory Review.

**Tree and/or Shrub Pruning or Planting Using Hand Tools:** If the above conditions are met, no review is required.

### **Purpose**

The purpose of this activity is to provide safe and convenient pedestrian access to the shoreline where the height of the bank makes accessing the beach otherwise difficult.

### **Definition**

Stairways are removable or permanent structures that are placed for the purpose of providing pedestrian access to the beach or shoreline over a steep or high bank. Stairways are typically constructed of wood or metal and are usually not permanently attached to the shoreline, which allows for annual removal and reinstallation.

### **Environmental Protection Objectives**

- To prevent erosion and sedimentation as a result of the construction process.
- To prevent the loss of wildlife/aquatic habitat.
- To minimize buffer zone and shoreline disturbance.
- To minimize the impact on other users of the beach and activities on the shoreline.

### **Planning Considerations**

Structures may be constructed in place or pre-fabricated and placed manually and/or using heavy equipment.

Stairways should be located/constructed to minimize impact (cutting of live trees/shrubs) upon the buffer zone.

Potential impacts upon other users and activities on the beach/shoreline must be considered during construction. Structures must not block or impede water flow or pedestrian traffic along the beach/shoreline.

Where possible, to reduce the number of stairways, structures should be shared by neighboring property owners.

Stairways should be located at stable sites to avoid contributing to shoreline erosion and sedimentation of the watercourse/wetland.

Construction of a stairway should be done in a manner that does not require excavation of the buffer zone, bank and/or beach. This will reduce the risk of sediment entering the watercourse or wetland.

No machinery is required to install or remove the stairway, with the exception of machinery operated by a Licensed Contractor which have approval to do so. Please see the following link to see the Licensed Contractors.

<https://www.princeedwardisland.ca/en/information/environment-water-and-climate-change/contractor-earth-mover-licensing-program>

### **Application Requirements**

Installation / removal / repair of a stairway structure does not require a Watercourse, Wetland and Buffer Zone Activity Permit if all of the following conditions are met:

1. Installation / removal / repair of the stairway does not require the operation of heavy equipment in the buffer zone and/or on the shoreline.
2. Installation / removal / repair of the stairway does not require any excavation and/or cutting of trees/shrubs in the buffer zone or on the shoreline.

A Watercourse, Wetland and Buffer Zone Activity Permit is required for placement of a stairway if heavy equipment is required for installation or excavation or the cutting of trees/shrubs in the buffer zone is necessary. In addition to the standard information required on the application form, a copy of the following must be included:

1. plan, profile and cross-sectional drawings (including dimensions) to scale;
2. a full description of the proposed construction method and materials;
3. timing and scheduling of the proposed activity; and
4. a description of all equipment and methods to be used.

A permit is required for the annual placement and/or removal if the stairway is to be placed or removed by heavy equipment operating in the buffer zone or on the beach.

**Failure to submit required documents could result in the return of the application without it being processed.**

### **Guidelines**

The stairway must not encroach onto the beach to the extent that other users and activities on the beach/shoreline are impacted and/or pedestrian traffic is obstructed.

When building or repairing stairways use only metal or cured and dried treated timber. Creosote timber is not permitted.

If machinery is required for the installation, machinery is to arrive on site in a clean, washed condition and is to be maintained free of fluid leaks.

Wash, refuel and service equipment and store fuel and other materials a minimum of 30 metres away from the watercourse to prevent any deleterious substance from entering the water.

Keep an emergency spill kit on site in case of machinery leak or spills.

### **For Government Purposes**

**Stairways:** Applications require a Regulatory Review.

### **Purpose**

The purpose of this guideline is help proponents minimize the potential environmental impacts of their proposal; to ensure they have consulted with all required Federal regulators and Provincial Government agencies, and to ensure they acquire the appropriate documentation where necessary to obtain a Provincial watercourse, wetland and buffer zone activity permit.

### **Definition**

Floating docks are removable structures that are not permanently anchored to the bottom, and provide areas on a shoreline for watercraft to land and embark under a controlled and stable regime, while minimizing the navigational hazard and disturbance to the aquatic habitat.

### **Environmental Protection**

#### **Objectives**

- To prevent erosion and sedimentation as a result of the construction process.
- To prevent the loss or destruction of any wildlife or aquatic habitat.
- To minimize buffer zone and shoreline disturbance.
- To prevent water pollution.

### **Planning Considerations**

Structures placed in the shallow waters bordering the banks of a watercourse may pose a threat to the sensitive near shore zone. The near shore zone is often an area of high food productivity, because primary food production is initiated by the penetration of light, acting as a source of energy for algae and aquatic plants. The near shore zone also provides important spawning and nursery habitat for many species of fish and shellfish.

In some near shore areas where the fish habitat is unique or critical, shoreline development or disturbance may not be permitted. For other near shore areas, shoreline development should be limited or

designed such that there is a minimal impact on habitat.

### **Additional Impacts and Users that Require Consideration**

In almost all rivers and bays on PEI one can find public shellfish beds and commercial leases fished by men and women who make their livelihood from the sea.

All floating dock owners should be aware that, under federal jurisdiction, shellfish harvesting within 125 meters of certain fixed structures like wharves and piers is prohibited as outlined in Section 4.1.3.5 of *the Canadian Shellfish Sanitation Program Manual*. This is due to potential contamination of shellstock from the materials used during construction, from human activity associated with the completed structure or from faecal wastes from animals attracted to the structure.

For these reasons it is important to know where the leases in your area are and to avoid them with the placement of your floating dock.

### **Application Requirements for Receiving a Provincial watercourse, wetland and buffer zone activity permit.**

In addition to the standard information required on the application form, a copy of the following must be included:

1. A plan or sketch showing the dimensions of the floating dock and its location in relation to the bank, the mean high water mark, and any sensitive natural features (eg: saltmarsh, or eel grass) in the area;
2. A description of the materials from which the dock will be constructed with;
3. Timing and scheduling of the proposed dock installation;
4. A description of all equipment and methods to be used to install and remove the dock;

See link for the Watercourse, wetland and buffer zone activity application form:

[https://www.princeedwardisland.ca/sites/default/files/forms/application\\_for\\_wwbz\\_permit.pdf](https://www.princeedwardisland.ca/sites/default/files/forms/application_for_wwbz_permit.pdf)

**Failure to submit any required information could result in the return of the application without it being processed**

### Other Government Agencies to be Consulted during the planning process:

#### Land Registry Office

- 1) **It is the proponent's responsibility** to verify the full extent of their land ownership. To do this the original deed should be checked and if needed the lot surveyed. To get a copy of your deed you can contact the Land Registry Office by Email: [registry@gov.pe.ca](mailto:registry@gov.pe.ca) or visit at 11 Kent Street, PO Box 2000, Charlottetown, PE C1A 7N8 (902) 368-4591. Or at 120 Heather Moyse Drive, Summerside, PE C1N 5Y8 (902) 888-8080.

#### Transport Canada

- 2) The approval of *Transport Canada*, which administers the Canadian Navigable Waters Act must be obtained when a structure is to be placed in or across any navigable waters. Phone (506)851-3113 <http://www.tc.gc.ca/eng/programs-675.html>

#### Department of Fisheries and Oceans Canada

- 3) *Fisheries and Oceans Canada (DFO)* is the federal lead for safeguarding Canada's waters and managing its

fisheries, oceans and freshwater resources.

*The Fish and Fish Habitat Protection Program ensures compliance with relevant provisions under the Fisheries Act, the Species at Risk Act and the Aquatic Invasive Species Regulations.*

**It is the proponent's responsibility** to understand the impacts of the project on fish and fish habitat and to take measures to avoid and mitigate these impacts. Further information and guidance can be found on the Projects near water website: <https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html> or by contacting the Fish and Fish Habitat Protection Program at (506) 851-2824 or Email: [gulffishabitatgolfe@dfo-mpo.gc.ca](mailto:gulffishabitatgolfe@dfo-mpo.gc.ca)

**The proponent is also responsible** for contacting Department of Fisheries and Oceans Canada / DFO Shellfish Leasing at (902) 566-7810 to obtain all necessary information related to shellfish leases and/or fishery activities. <https://www.dfo-mpo.gc.ca/aquaculture/management-gestion/pei-lic-ipe-baux-eng.htm>

#### Department of Environment, Energy and Climate Action / Forest, Fish and Wildlife Division

- 4) **It is the responsibility of the proponent** to ensure there is no nesting of piping plovers or critical habitat in the area where the dock will be placed. Forests, Fish & Wildlife can be contacted to obtain this information at (902) 368-4683.

#### General Permit Requirements

- 1) The floating dock must be removed prior to freeze up.
- 2) Installation or removal of the floating dock cannot require any excavation or construction activity within the 15 meter buffer zone of the watercourse or wetland.
- 3) The floating dock must be constructed from materials which are not toxic to aquatic life. Other points of note include

- a) Creosote timber is not permitted in the aquatic environment.
  - b) Recycled materials such as old metal drums or tires must not be used because they may contain substances harmful to water quality and aquatic life. Plastic drums used for dock flotation must be clean and sealed before placement in the water.
  - c) Styrofoam, can be used for floating docks, must be enclosed as it is a potential hazard to fish if mistaken for food.
  - d) Any materials used for the floating dock cannot leach toxins and must be free of oil, grease and other contaminants.
- 4) No modification to the bank, of the watercourse or wetland area to install the dock is permitted.
- 5) Public access along the shoreline cannot be obstructed in any way by the floating dock placement or interfere with any authorized user of the body of water or it's bed.
- 6) The proponent must ensure that no floating dock is placed immediately adjacent to critical fish habitat or shellfish grounds. No floating docks can be placed on any shellfish lease or any other fishing berths, or affect any fishery activity. **(As determined by the Department of Fisheries and Oceans)**
- 7) It is the responsibility of the proponent to ensure any other necessary approvals or permissions (e.g. permits, etc.) from private landowners or government agencies including federal, provincial, and municipal departments (e.g. Town of Cornwall buffer zones) or before the placement of the dock is carried out.
- 8) No machinery should be allowed to install or remove the floating dock unless permitted under a watercourse, wetland and buffer zone activity permit,

or with the exception of machinery operated by a Licensed Contractor or various floating dock companies in which have approval to do so. Please see the following link to see the Licensed Contractors and approved floating dock companies. <https://www.princeedwardisland.ca/en/information/environment-water-and-climate-change/contractor-earth-mover-licensing-program>

- 9) No floating dock can encroach into the navigation channel or obstruct navigation. As regulated by Transport Canada. <http://www.tc.gc.ca/eng/programs-675.html>
- 10) All concrete used for anchors must be pre-cast. Pre-cast concrete must be cured for a period of at least three weeks before being placed in the watercourse.
- 11) No part of the floating dock can be permanently anchored to the substrate.

**Note: Floating dock owners requesting dredging to accommodate water depth for floating docks will not be approved.**

**Failure to meet all of these requirements will leave the proponent of any installed floating dock open to legal prosecution and could result in the removal of the entire structure from the water.**

**For Government Purposes**

**Floating Docks:** Applications require a Regulatory Review.

**SECTION 4: GLOSSARY AND WORKING GROUP MEMBERSHIP**

Please note that these definitions are for administrative purposes only and do not in themselves represent legal interpretation of the listed terms.

- A -

**abutment** – a wall or mass supporting the end of a bridge, arch or span, sustaining the pressure of the abutting earth and protecting the banks of the watercourse or wetland.

**advisory review** – requires approval from Prince Edward Island Department of Environment, Labour & Justice and Fisheries and Oceans Canada before the work can proceed.

**alien species** – are species of plants, animals and microorganisms introduced by human action outside their natural past or present distribution (based on the definition of Decision VI/23 of the Convention of Biological Diversity).

**alignment** - the fixing of points on the ground for the laying out of a culvert, bridge, abutment or pier.

**activity (legal)** - No person shall, without a license or Watercourse, Wetland and Buffer Zone Activity Permit, from the Minister of Environment, Labour and Justice, and other than in accordance with the terms and conditions thereof, alter a watercourse, wetland or buffer zone, or any part thereof, or water flow therein or the land within 15 metres of the watercourse boundary or wetland boundary, in any manner including:

1. constructing a control dam, river diversion or drainage diversion;
2. draining, pumping, dredging, excavating, or removing soil, water, mud, sand, gravel, aggregate of any kind, or litter from any watercourse or wetland;
3. deliberately dumping, infilling, or depositing in/on any watercourse, wetland or buffer zone any soil, water, stones, sand, gravel, mud, rubbish, litter or material of any kind;
4. placing or removing structures, including wharves, breakwaters, slipways, or placing or removing obstructions, including bridges, culverts or dams,
5. operating machinery on the bed of a watercourse or wetland or in a buffer zone;
6. disturbing the ground, either by excavating or depositing earthen or other material, in or on a watercourse, wetland or buffer zone; and carrying out any type of stream activity, including debris removal, habitat development, or placement of instream structures.

**anadromous** - those fishes (e.g. salmon) that spend all or part of their adult life in salt water and return to freshwater streams and rivers to spawn and complete their life cycle.

**approach velocity** - the speed at which water approaches a culvert, constriction, spillway, weir or water intake structure.

**apron** - protective material laid on the bed of a watercourse to prevent scour.

**arch** - a curved structure designed to exert horizontal forces on its supports when subjected to vertical loads; commonly used as a bridge or support for a roadway or railroad track.

**area** - a measure of the size of a two-dimensional surface, or of a region or tract on that surface.

**armour** - the artificial surfacing of bed, banks, shore or embankment to resist erosion or scour; armor devices include the following: sacked concrete, gabions, salvaged pavement slabs, rock slope protection (rip rap), concrete pieces, pre-cast concrete sections.

**aquatic** – water related i.e., aquatic life refers to organisms that live in water and can include fish, invertebrates and shellfish.



- B -

**backwater** - raised water levels as a result of the constricting or obstructing effects of a watercourse crossing structure.

**baffle** - a device or structure to deflect, check, or regulate flow of water.

**bank** - any elevated slope of earth that borders a body of water, especially the rising ground that confines a watercourse to its channel.

**bank, left (right)** - the bank on the left (right) side of the channel looking downstream.

**bank protection** - any means of stabilizing a bank against erosion, including armour or devices deflecting the erosive forces away from the bank.

**basin area** - the total area within a drainage basin that contributes overland flow to a watercourse.

**beach** - a gently sloping zone of unconsolidated material (sand, rock, clay) that extends from the maximum low-tide mark landward to the permanent terrestrial vegetation line or to where there is a distinct change in material or physiographic form.

**beaver dam** - natural structure usually constructed of wood, organic matter, mud, gravel and rocks and built to retain water.

**bed** - the ground beneath a body of water.

**bed load** - soil particles carried by the natural flow of a watercourse on or immediately above its bed.

**berm** - a small dyke.

**bog** - area of soft, wet, spongy ground consisting chiefly of decayed or decaying moss or vegetation.

**boom** - floating log or similar element designed to dampen surface water or control the movement of drift.

**box culvert** - a culvert of rectangular or square cross-section.

**breakwater** - a wall or barrier built into a watercourse to break the force of waves.

**bridge** - a structure built over a watercourse or wetland, the deck of which forms a link in the road or footpath.

**brook** - a small stream of flowing water, especially one that flows swiftly over a rocky bed.

**brush** - a thick growth of shrubs, bushes, small trees, etc.

**by-pass pond** - a pond connected to a watercourse or wetland by an inlet and outlet pipe so as to be supplied with water for: recreation, irrigation, fire-fighting, fish rearing, or other purposes.

**- C -**

**Canadian Environmental Assessment Act (CEAA)** – a federal statute which requires the initiating federal department to conduct a self assessment of potential environmental impacts with a proposed undertaking. The CEAA also has a provision for public input in environmental assessments of federal government activities.

**cable crossing** - the location where fibre optic or electrical cables cross a watercourse.

**catadromous** - a behavioural characteristic of certain species of fish (American eels) in which they migrate from freshwater to saltwater to spawn.

**causeway** – a raised road, or path, usually built across a shallow, wide body of water or wetland and includes a flow through structure which is designed not to impound water.

**cfs** - cubic feet per second.

**channel** - the open depression in which water may or does flow; the space above the bed and between the banks of a watercourse.

**channel capacity** - the maximum flow that can be carried by a given channel cross-section without overflowing its banks.

**check dam** - a low fixed structure constructed of hay bales, timber or loose rock to control water flow in an erodible channel or ditch.

**chute** - a conduit for conveying free-flowing water at high velocity to a lower level.

**clay** – an earthen material of a grain size less than 0.002 mm.

**clear cutting** - felling and removing all trees in a forest region.

**cofferdam** - a temporary structure constructed around an excavation to exclude water so that work in or adjacent to a watercourse can be carried out in isolation of stream flow.

**conduit** - natural or artificial channel through which water is conveyed.

**confluence** - the place where two or more watercourses come together.

**constriction** - narrowing of a channel to less than its normal or average width as a result of man-made or natural slide controls.

**contaminant** (legal) – includes any solid, liquid, gas, waste, odour, vibration, radiation, sound, or a combination of them

- which is foreign to or in excess of the natural constituents of the environment into which it is being introduced,
- which will or may adversely affect, either directly or indirectly, the natural, physical, chemical, or biological quality of the environment,
- which is or may be injurious to the health or safety of a person or be damaging to property or to plant or animal life,
- which interferes with or is likely to interfere with the comfort, well-being, livelihood, or enjoyment of life of a person, or
- which is declared by regulation to be a contaminant.

**coordinates** – coordinates obtained from a GPS unit or map to confirm project location.

**cribwork, crib** - and open-frame structure loaded with earth or stone ballast.

**culvert** - a covered structure which conveys the flow in a watercourse or wetland under a road or footpath whereby the top of the cover material is graded to form the travel surface.

- **D** -

**dam** - a water control structure constructed across a watercourse or wetland designed to handle water, including retention, conveyance, control, regulation and dissipation.

**debris removal** - removal of material from the bed or banks of the watercourse.

**deck** – floor of the bridge usually consisting of timbers placed on top and perpendicular to the stringers.

**degradation** - the vertical erosion of a watercourse to establish or maintain uniformity of grade.

**deleterious**- causing damage; harmful.

**design flow** - the discharge which a structure is designed to accommodate without exceeding the adopted design constraints.

**design headwater** - the vertical distance from the culvert invert at the inlet end to the energy line of the headwater pool.

**design high water** - water level adopted for design, usually based on empirical frequency of recurrence.

**dimensional sketches** – freehand drawings with all the dimensions necessary to describe the size, shape and location of the proposed alteration, relative to the watercourse or wetland.

**discharge** - the flow rate of a fluid at a given point in time expressed as volume per unit of time, such as cubic metres per second, gallons per minute, etc.

**ditch** - an small artificial channel excavated through the earth's surface for drainage, irrigation or to bury pipes, wires or cables or for various other purposes.

**ditch run-out** - see "off-take ditches".

**diversion (permanent)** – the excavation of a new channel which re-directs the existing watercourse and may straighten a meandering reach of channel and shorten the overall length of the watercourse.

**diversion (temporary)** – the installation of a temporary channel to re-direct the water flow which allows work to occur in the dry.

**downstream** - in the direction of the normal flow of a watercourse.

**drainage** - removal of surplus groundwater or surface water from an area by natural or artificial means.

**drainage basin** –the total watershed area from which waters are drained.

**drawings to scale** – fully dimensioned scaled drawings prepared with the use of drawing instruments and showing all dimensions necessary to describe the size, shape and location of the proposed alteration, relative to the watercourse or wetland.

**dredging** - the excavation of material from the bed of a watercourse or wetland by mechanical means.

- E -

**ecology** - the study of the interrelationships which exist between living organisms and their environment.

**engineering scale drawings** – fully dimensional scale drawings prepared with the use of drafting instruments and showing all dimensions necessary to describe the size, shape and location of the proposed alteration, relative to the watercourse or wetland. These drawings must be prepared by or under the direct supervision of a person licensed to practice as a Professional Engineer in Prince Edward Island, pursuant to the Engineering Profession Act. The drawings must bear the seal of the Professional Engineer.

**environment** - the sum of all external conditions and influences affecting the existence and development of living organisms.

**Environmental Protection Act** – a provincial Act of legislation to manage, protect and enhance the environment.

**erosion** - the loosening, wearing away and transportation from one place to another of materials from the earth's surface by the action of wind, water and ice.

**erosion control work** - structures or vegetation used to stabilize and protect the banks of a watercourse from the scouring and erosive action of water, ice or debris within the watercourse.

**estuary** - tidal reach at the mouth of a river.

- F -

**filter** - a device or porous structure through which a liquid is passed in order to remove solids or impurities.

**fish** – The Federal **Fisheries Act** defines Fish to include all phases of life as,

- (a) parts of fish
- (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and
- (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals.

**fisheries** – commercial, First Nations, or recreational harvesting or catching of fish in watercourses; the fish stocks.

**Fisheries Act** – federal legislation protecting fish and fish habitat.

**fishery enhancement** - the creation of conditions more amenable to the rearing of fish for commercial or recreational purposes.

**fish habitat** - defined in the Federal **Fisheries Act** as spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.

**fish ladder** – see “fishway”

**fish lift** – see “fishway”

**fish passage** – the unobstructed movement of fish between habitats in order to carry out their life processes.

**fish ponds** - impoundments of water primarily used to hold fish for rearing, or for recreational fishing.

**fish screen** - a screen set across a water intake, outlet or pipe to prevent the entrance or exit of fish.

**fishway** – any device, structure or operating system (i.e., a series of stepped baffles or weirs or runaround) that facilitates and provides for efficient fish passage upstream or downstream of any obstruction impeding the free passage of fish (e.g., through or around a dam).

**flood** - the condition that occurs when water overflows its natural or artificial boundaries and covers adjoining land that is not usually underwater; to inundate or overflow.

**flood, annual** - the highest flow at a point on a watercourse during any given year; the flood that is equaled or exceeded once each year on average.

**flood protection** - measures taken to protect lives or property from the risk of flooding.

**flume** - an open conduit of timber, concrete, metal, etc. on a prepared grade, trestle or bridge used to convey water, usually for industrial purposes.

**fluvial** - pertaining to or produced by the water flow in a watercourse.

**forested riparian zone**- a buffer zone that has trees and shrubs as the dominant vegetation adjacent to watercourses and wetlands.

**freeboard** - the vertical distance between the elevation of the design headwater and the top of a dam, levee or diversion ridge.

**freshet** – rapid temporary rise in stream discharge and level caused by melting of snow and ice.

**- G -**

**gabions** - wire baskets filled with coarse gravel or rock used especially to support the bank of a watercourse or an abutment.

**gauging station** - a site on a watercourse where systematic records of stage or stage and discharge are obtained; also called a “hydrometric station”.

**grade** - the slope of a roadway, ditch or bed of a watercourse expressed as a function of the amount of vertical drop over a given distance; also, to prepare a roadway or other land surface of uniform slope.

**gravel** - rounded pebbles larger than sand and smaller than cobble ranging in diameter from 0.5cm (1/5") and 7.6cm (3").

**grubbing** - clearing stumps and roots.

- H -

**habitat** – the home of wildlife (plants, fish, animals) where its basic needs are met (i.e., food, shelter, water and physical space).

**head** – the height of water above any point or place of reference.

**headwall** – a retaining wall at the inlet and/or outlet of a culvert serving as protection against scouring and erosion of the foreslope.

**headwater** – the water upstream from a dam or other such impoundment; the source and upstream waters of a watercourse.

**head pond** – an impoundment of water behind a man-made dam whose primary function is providing a head of water to facilitate gravity flow.

**heavy equipment (legal)** – means

- equipment classified as excavators, mechanical harvesters, porters, skidders, and wood processors;
- farm tractors over 50 horsepower; and
- trucks and bulldozers,
- but does not include wheeled and tracked equipment being used in the active suppression of wildfire.

**high tide mark** – the normal high water mark generally denoted by the average high tide in any given year.

**high water mark** – a distinct mark upon the bank of a watercourse created by the continuous presence and action of water.

**hydraulic** – pertaining to fluid in motion and the mechanics of that motion.

**hydraulic elements** – the depth, area, perimeter, hydraulic radius, velocity, energy and other quantities pertaining to a particular stage of flowing water.

**Hydric soils** – soils that are saturated or flooded with water long enough during the growing season to develop anerobic (oxygen deficient) conditions in the upper layer; soils that favour the growth of aquatic or water tolerant vegetation.

**hydrologic** – pertaining to the cyclic phenomena of the waters of the earth, successively as precipitation, and quantitatively as distribution and concentration.

**hydrotechnical** – pertaining to water related sciences and technologies.

- I -

**impervious** – not permitting water or other fluids to pass through.

**impoundment** – a pond of water created by a man made structure that collects and retains water.

**in isolation of stream flow** – separated from the wetted portion of the channel. Also known as “in the dry”.

**instream sediment basins (trap)** – function to capture and settle the sediment accumulating in that specific reach of the watercourse.

**instrument pools or wells** – natural or artificial sites on a watercourse where measurement devices may be used for hydrotechnical purposes in sheltered or preferred conditions.

**in the dry** - see “in isolation of stream flow”.

**invasive alien species** – are those harmful alien species whose introduction or spread threatens the environment, the economy, or society, including human health (based on the definition of the United States National Invasive Species Council Management Plan, 2001).

**invert of a culvert** – the lowest point in the internal cross section of a culvert.

**irrigation** – to supply land with water by artificial means for agricultural or commercial purposes.

- J -

**jam** – accumulation of debris, ice or other material which has become wedged in the channel of a watercourse forming a partial or complete obstruction.

- L -

**land extension** – addition of any earthen or rock material to the natural shoreline/banks as a result of a planned partial infilling of a watercourse or wetland.

**landlocked pond** – means an excavated depression or hole in the terrain, that holds water some or all of the time, and has no inlet or outlet.

**lining** - a protective covering over all or a portion of a conduit to resist erosion, to prevent seepage losses, to withstand pressure or to reduce flow conditions.

**livestock (legal)** – includes, but is not limited to, animals commonly referred to as cows, cattle, swine, horses, sheep, goats and poultry.

- M -

**m<sup>3</sup>/s**- cubic metres per second.

**macrophyte** – a member of the macroscopic (large enough to be seen with the naked eye) plant life, e.g., pond weed or eel grass, found in a wetland or watercourse.

**maintenance flow** – the quantity of flow prescribed by regulation or guidelines to be retained in a watercourse downstream of a point of withdrawal required to maintain the integrity of the aquatic ecosystem or to meet downstream water demands.

**major obstruction** – general term which includes dams, causeways, water-control structures (such as fish ways and weirs) and other hydraulic structures which impound water.

**map** – is not meant to be a hand drawn sketch. Copies of road maps, topographical maps, etc. are acceptable. If Land Registry Information System (LRIS) maps, legal surveys or air photos are used, it is the applicant's responsibility to be sure that they clearly show the location of the project relative to well known (labeled) landmarks such as watercourses, roads and/or transmission lines, etc.

**marsh** – a track of treeless wetland that supports a dense variety of vegetation, principally grasses.

**meanders** – a series of bends, loops or curves in a watercourse formed by the action of flowing water.

**minor obstruction** – general term which includes single span bridges, culverts, water intake structures or other structures which do not impound water.

**motor vehicle (legal)** – means a vehicle that is powered, drawn, propelled or driven by any means other than muscular power.

**mud** – a soft, saturated mixture mainly of silt and clay.

**mulch** – a protective covering, such as hay or straw, that is spread over exposed soil to prevent erosion and evaporation, maintain an even soil temperature, control weeds and enrich soil.

- N -

**navigation** – any or all of the various processes used in determining position and directing the movement of a craft in water.

**Navigable Waters Protection Act** – an Act, administered by the Federal Ministry of Transport, developed to protect the public right of navigation in a navigable watercourse.

**navigable water** – includes any body of water capable, in its natural state, of being navigated by floating vessels of any description for the purpose of transportation, recreation or commerce; any body of water created or altered to replace the function of a natural watercourse, as well as any waterway where the public right of navigation exists by dedication of the waterway for public purposes, or by the public having acquired the right to navigate through long use.

- O -

**Oceans Act** – Federal legislation protecting oceans and coastal areas.

**obstruction** - structures or debris in the watercourse which impede or prevent the flow of water and/or fish migration.



**off-take ditches** – a trench excavated from a roadside ditch (usually into an undisturbed, vegetated area) in order to divert water away from a watercourse or wetland. Off-take ditches must be constructed at least 15 metres from any watercourse or wetland.

**open-bottom culverts** – semi-circle, rectangular or elliptical corrugated metal, concrete, wooden or plastic arches found on footings, with the sides and top encased in earth fill, designed to carry water under a travel surface.

**- P -**

**peak** - maximum instantaneous stage or discharge of a watercourse in flood.

**peak flow** - the maximum instantaneous value of discharge over a specified period of time.

**perimeter coastline** (legal) – means the coastal area of the Prince Edward Island landmass that borders directly on waters of the Northumberland Strait, the Gulf of St. Lawrence, Egmont Bay, Bedeque Bay, Hillsborough Bay, Cardigan Bay, Boughton Bay, Howe Bay, Rollo Bay, and Colville Bay as outlined in Appendix 2 of the Environmental Protection Act.

**pier** - on bridges of more than one span, the intermediate supports between abutments or a structure extending out into a body of water from shore used as a landing place for boats.

**pile, piling** - a columnar timber, steel or reinforced concrete post that has been driven or jacked into the ground or bed of a watercourse to support a load or resist lateral pressure.

**pipe** - a hollow tube made of metal, clay, plastic, fibreglass or concrete used to conduct fluids or gasses.

**pipeline crossing** - location where distribution or transmission pipelines carrying petroleum products, sewage or water cross a watercourse.

**pond** – see “wetland”.

**pools** - depressions in a bed of a watercourse, frequently a resting place for fish.

**professional engineer** - a person who is a member or licensee of the Association of Professional Engineers of the Province of Prince Edward Island, as described in the Prince Edward Island Engineering Profession Act.

**profile** – a drawing showing a vertical elevation of the bed of a watercourse between two points.

**- R -**

**regulatory review** – requires only Prince Edward Island Department of Environment, Labour & Justice approval for work to proceed.

**reservoir** – an artificial impoundment of water for the purpose of storage for latter use.

**riffle** – shallow water extending across the bed of a flowing watercourse with rapid current and with surface flow broken into waves by submerged materials such as rocks, gravel or cobble.

**riparian** – relating to or situated on the bank of a river or stream.

**riparian zone-** the vegetated land area immediately adjacent to watercourses and wetlands.

**rip rap** – heavy broken rock, cobbles, or boulders placed over a denuded or exposed soil surface providing a permanent, erosion resistant cover. Rip rap is used to armour the banks of watercourses.

**rise** – the distance from the bed of the watercourse to the underside of the stringers of a bridge, or the vertical dimension of an arched pipe.

**- S -**

**salmonid** - of or related to the salmonidae family of fishes, including salmon, trout and char.

**sand** – granular soil or detritus coarser than silt and finer than gravel, ranging in diameter from 0.06mm (0.0025") to 2mm (0.08").

**scour** - an erosion process resulting in the abrading of the bed of a watercourse or the undermining of a foundation by the action of flowing water and/or ice.

**sediment** – is undissolved matter ranging from clay size particles to fine pebble size (2-4mm) usually released due to erosion of the banks of a watercourse or disturbed upland areas.

**sediment trap (instream)** – see “instream sediment basins”.

**sediment trap (on land)** – a structure designed and installed to intercept and hold sediment before it reaches the watercourse or wetland.

**seepage** - the slow movement of water through small openings, cracks or crevices.

**serious harm to fish** – the death of fish or any permanent alteration to, or destruction of, fish habitat.

**settling ponds** - artificial ponds designed to collect suspended sediment and separate suspended particles from water by gravity settling.

**shale** – a common Prince Edward Island term meaning red, soft sandstone.

**shrub swamp** –a general term for an area that is waterlogged and covered with abundant vegetation especially shrubs and trees; see “wetlands”.

**silt** – an earthy sediment consisting of fine particles or rock, soil suspended in and carried by water.

**silt fence** - specially designed synthetic fabrics fastened on supporting posts which are designed to efficiently control and trap sediment runoff from construction sites.

**slipway-** constructed ramp leading into a watercourse or wetland for the main purpose of loading and unloading boats.

**span** - the horizontal distance between the abutments or supports of a bridge.

**Species at Risk Act** – Federal legislation designed to prevent species from becoming extinct and to ensure actions for their recovery.

**spring** - any place where a concentrated, natural flow of groundwater discharges to the surface of the land or into a body of water.

**standpipe** – a vertical pipe used to establish and maintain consistent water levels.

**stilling pool** – a pool located at the bottom of a fish weir or culvert to dissipate the energy of falling water.

**strand** – to leave fish or wildlife in an unfavourable habitat without means to escape.

**stream** - a body of running water moving under the influence of gravity to lower levels in a narrow, clearly defined natural channel.

**stream alteration** - see “watercourse alteration”.

**stream habitat survey** – a survey of the watercourse to determine aquatic and wildlife species and habitat, watercourse dimensions (width, depth), substrate types, vegetation and cover.

**stream profile survey** – to determine and delineate the form, extent and position by taking linear and angular measurements and by applying the principles of geometry and trigonometry.

**stringer** – material spanning the abutments forming a connection between them and used to support the deck of the bridge.

**sub-division** – a tract of land surveyed and divided into lots (recreational, commercial, institutional, residential) for the purposes of sale and development.

**substrate** - the materials making up the bed of the watercourse.

**suspended sediment** - is undissolved matter ranging from clay size particles to fine pebble size (2-4mm) usually released due to erosion of the banks of a watercourse or disturbed upland areas that is sustained in the water flow somewhere between the surface and bed of the watercourse.

**swale** – a depression of low lying, and often water saturated, land.

**- T -**

**temporary crossings**- structures that provide access across the watercourse or wetland for a limited period of time (usually less than 60 days).

**title deed** – the deed constituting the evidence of a person’s legal ownership.

**tailwater** – see “fishway”.

**toxic** – of, relating to, or caused by a poison or toxin.

**trace** – a minute and often barely detectable amount.

**turbidity** - is a function of the concentration of suspended sediment.

**- U -**

**upstream** – in the direction opposite to the flow of a watercourse.

- V -

**Vegetation** – plant life, or an area of total plant cover.

- W -

**water** – includes liquid and frozen surface and ground water.

**water control structures** - include spillways, weirs, fishways and other structures which control flow by mechanical means.

**watercourse (legal)** - an area which has a sediment bed and may or may not contain water and includes the full length and width of the sediment bed, bank and shore of any stream, spring, creek, brook, river, lake, pond, bay, estuary or coastal water body, any water therein and any part thereof, up to and including the watercourse boundary. It does not include a grassed waterway or a tap drain (unless a sediment bed has been formed in it by flowing water).

**Watercourse, bufferable (legal)** – a watercourse that has a sediment bed and may or may not contain water.

**watercourse activity (legal)** – see “watercourse” and “activity”.

**watercourse boundary (legal)** – in the case of a watercourse other than a tidal watercourse, it is the edge of the sediment bed of the watercourse; and in the case of a tidal watercourse, it is the top of the bank of the watercourse, unless there is no discernable bank in which case it is the mean high water mark of the watercourse.

**Watercourse, Wetland and Buffer Zone Activity Permit** - a permit signed by the Minister of the Environment, Labour and Justice (or a designate) and issued according to the Environmental Protection Act.

**water gauge** – an instrument used to measure or find the depth/quantity of water.

**water intake structure** - structures used to withdraw water from a watercourse or wetland for the purpose of irrigation, domestic supply, manufacturing, fire-fighting, aquaculture facilities, etc.

**water tolerant vegetation** – plants that are adapted to wetland or aquatic habitats

**watershed** – a geographic area which contributes surface run-off and groundwater to a particular watercourse or estuary.

**wave action** – moving ridge or swell on the surface of open water which may contribute to the erosion of the coastline.

**weir (measuring)** - a spillway-like device in a waterway over which water flows used to measure flow in a channel.

**wetland enhancement pond** – an excavated pond in an area of land that is covered by water for all or part of the year (i.e., fresh water marshes, bogs, shrub swamps).

**wetland (legal)** - those lands commonly referred to as marshes, salt marshes, swamps, bogs, flats and shallow water areas that are saturated with water long enough to promote wetland or

aquatic biological processes which are indicated by poorly drained soil, water-tolerant vegetation, and biological activities adapted to a wet environment (as defined in the Prince Edward Island Wetland Inventory).

**wharf** – permanent or removable structure located along the shore of navigable waters traditionally used for boat mooring or for vessels to tie up to while loading and unloading.

**wingwall** - a lateral wall built onto an abutment serving to retain earth in the embankment.

**wire baskets (gabion)** - a basket or cage filled with coarse gravel or rock material and placed as means of bank protection.

The review and preparation of this document was carried out by the Prince Edward Island Watercourse, Wetland and Buffer Zone Activity Guidelines Working Group. Members of the working group included the following departments and their representatives:

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Integrated Resource Planning Section

**APPENDIX A: HABITATS & BEHAVIOURAL PATTERNS OF SOME  
NOTABLE AQUATIC AND WILDLIFE SPECIES OF  
PRINCE EDWARD ISLAND**

## APPENDIX A: HABITATS AND BEHAVIORAL PATTERNS OF SOME AQUATIC SPECIES OF PRINCE EDWARD ISLAND

### FINFISH / SHELLFISH

FAMILY	GENUS SPECIES	HABITAT	MIGRATORY BEHAVIOR	MIGRATORY PERIOD	SPAWNING PERIOD	IMMOBILE PERIOD	SPAWNING TEMP (°C)	SEXUAL MATURITY
Clupidae (Herrings)	<i>Alosa aestivalis</i> blueback herring gaspereau	usually spawn in fast flowing water just above the head of tide	anadromous	June to mid July	mid June to mid July	late June to late July	20-22	3-4 years
	<i>Alosa pseudoharengus</i> alewife; gaspereau	usually spawns in lakes, estuaries and slow moving water just above the head of tide	anadromous	April to mid July	late April to June	late April to mid June	14-21	3-4 years
Salmonidae (Trout and Salmon)	<i>Oncorhynchus mykiss</i> (Walbaum) rainbow trout	open water; fast moving; spawn in gravel riffle above a pool (the coarser the gravel, the better the survival rate)	anadromous / freshwater	March to late June	mid April to late May	mid April to late June	10-10.5	3-4 years
	<i>Salmo salar</i> Atlantic salmon	large, cool rivers and small brooks with a gravelly bottom ; may ascend smaller streams immediately prior to spawning, especially during high water; spawn in gravel riffle and pool tail outs	anadromous	May to early August; Sept. to mid November	mid October to mid November	October to mid June	7.5-10.5	3-4 years
	<i>Salvelinus fontinalis</i> brook trout; speckled trout	inhabit cool, clear streams and lakes; spawn in gravelly or rocky bottoms, slow-flowing or spring fed water with tree lined banks	anadromous / freshwater	September to mid November; anadromous populations generally migrate upstream from Tide Water mid May to end of June	mid September to mid November	late September to mid June		2 - 3 years
Asmeridae (Smelts)	<i>Osmerus mordax</i> (Mitchill) rainbow smelt	spawn in gravel bottomed brooks and streams	anadromous / landlocked	March to early June	late April to early June	late April to early July	8.9 - 18.3	2 - 3 years



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FAMILY	GENUS SPECIES	HABITAT	MIGRATORY BEHAVIOR	MIGRATORY PERIOD	SPAWNING PERIOD	IMMOBILE PERIOD	SPAWNING TEMP (°C)	SEXUAL MATURITY
Gasterosteidae (Sticklebacks)	<i>Gasterosteus aculeatus</i> threespine stickleback	lives in shallow waters; constructs nest of small twigs and plant debris in shallow water.	anadromous / freshwater	late April to mid July	early June to late July	June to late July	19	<1 years
	<i>Apeltes quadracus</i> (Mitchell) fourspine stickleback	live in vegetated areas (esp. eel grass); male constructs small nest in shallow water for spawning	freshwater / marine	late April to mid July	May to mid July	May to late June	18	<1 years
Gasterosteidae (Sticklebacks)	<i>Pungitius pungitius</i> (Linnaeus) ninespine stickleback	lives in shallow water; spawns in freshwater; male builds nest in a site among the weeds	freshwater / marine	late April to mid July	June to late July	June to late July	18	<1 years
Percichthyidae (Temperate Basses)	<i>Morone americana</i> (Gmelin) white perch	shallow water in lakes and rivers; can tolerate low salinity and high temperatures, but prefers cool brackish water; any bottom type	Anadromous / and land locked	late April to early June	May to early June	May to mid June	11 - 15	2 - 3 years
	<i>Morone saxatilis</i> (Wallaum) striped bass	marine and estuaries, spawn in tidal current	anadromous	May to early June (spawning migration)	early June	June	15 - 19	4 - 6 years
Antherimidae (Silversides)	<i>Menidia menidia</i> (Linnaeus) silverside	brackish-water marshes, intertidal	estuarine	April to May	early June	June	15 - 20	1 - 2 years
Pleuronectidae (Righteye Flounder)	<i>Liopsetta putnami</i> (Gill)	estuaries, mud or silt bottom	estuarine		late winter to early spring			
	<i>Pseudopleuronectes americanus</i> (Walbaum) winter flounder	inshore, shallow water, soft muddy to moderately hard bottoms	freshwater / marine	move offshore in summer, move onshore in winter	late winter to early spring			
Cyprinidae (Minnows)	<i>Chrosomus eos</i> (Cope) northern redbelly dace	prefers quiet water of beaver pond, bog ponds, small lakes or quiet pool like expansions of streams	freshwater	late May to August	late May to August	June		

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FAMILY	GENUS SPECIES	HABITAT	MIGRATORY BEHAVIOR	MIGRATORY PERIOD	SPAWNING PERIOD	IMMOBILE PERIOD	SPAWNING TEMP (°C)	SEXUAL MATURITY
Cyprinodontidae (Gudgeons)	<i>Fundulus Diaphanus</i> (Lesueur) banded killifish	prefers the quiet waters of lakes and ponds; over sand, gravel or detritus covered bottoms	freshwater		late May		21 -23	
	<i>Fundulus heteroclitus</i> (Linnaeus)mummichog	most common in salt marsh flats, estuaries and tidal areas	estuarine	June to August	June to August	late June to August		
Gadidae (Cods)	<i>Microgadus tomcod</i> (Wallbaum) Atlantic cod	sandy gravelly bottom at the head of tide	anadromous	November to end of March	November to end of March	November to mid June	0 -3.9	2 - 3 years
Anguillidae (Freshwater Eels)	<i>Anguilla rostrata</i> (Lesueur) American eel	muddy, silty bottoms of lakes, rivers and ponds	catadromous	May & June; September to mid October	February to end of July			8 years
Mytioxodae (Mussels)	<i>Mytillus edulls</i> blue mussel	lives in colonies attached to sand, gravel, pilings, wharves etc., by strong byssal threads			June to end of August		15 - 20	<1 year
Ostreidae (Oysters)	<i>Crassostrea virginica</i> (Gmelin) Eastern oyster	attached to a hard rock or semi hard mud bottom			late June to end of July		20	4 - 5 years
Myidae (Soft Shelled Clams)	<i>Mya arenaria</i> soft shelled clam	burrows in sand, mud or gravel			June to end of August		25 - 28	1 - 2 years
Veneridae (Hard Clams)	<i>Mercenaria mercenaria</i> Northern quahog	burrows in sand or sandy clay			June to mid August		20 -25	1 - 2 years

## APPENDIX A: HABITATS AND BEHAVIORAL PATTERNS OF SOME AQUATIC SPECIES OF PRINCE EDWARD ISLAND

### BIRDS

FAMILY	GENUS SPECIES	HABITAT	MIGRATORY PERIOD	BREEDING PERIOD	INCUBATION PERIOD	FLEDGING PERIOD	SEXUAL MATURITY
Anatidae (Swans, Geese, Ducks)	<i>Branta canadensis</i> Canada goose	ponds, lakes, bays, estuaries	Spring: March to late April; Fall: September to October	late April	28 days	August	2 years
FAMILY	GENUS SPECIES	HABITAT	MIGRATORY PERIOD	BREEDING PERIOD	INCUBATION PERIOD	FLEDGING PERIOD	SEXUAL MATURITY
Anatidae (Swans, Geese, Ducks)	<i>Anas rubripes</i> black duck	shallow ponds, lakes, marshes; sheltered saltwater (winter)	Spring	early April to mid June	28 days	August	1 year
	<i>Anas platyrhynchos</i> mallard	shallow ponds, marshes; sheltered saltwater (winter)	Spring: late march to early April, Fall:	early April to mid June	28 days	August	1 year
	<i>Alx sponsa</i> wood duck	forest edged lakes, ponds, swamps and marshes	Spring: April; Fall: late September to early October	May	28-30 days hatching in June	mid August	1 year
Ardeidae (Herons Bitterns)	<i>Botaurus lentiginoeurs</i> American bittern	marshes, bogs, swamps; salt marshes	Spring: mid May	June	24 days	August	
Charadriidae (Piping Plover)	<i>Charadrius melodus</i>	gravelly and sandy coastal beaches, shorelines	July to September	April to May	25 days	June to mid July	1 year
Rallidae (Rails, Coofs and Gallinules)	<i>Porzana carolina</i> (Sora)	Swamps, salt marshes (mainly in winter)	Spring: late May	mid June	16 to 20 days	August	

**APPENDIX A:  
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**MAMMALS**

FAMILY	GENUS SPECIES	HABITAT	MATING SEASON	BIRTH PERIOD	INDEPENDENCE FROM PARENTS	SEXUAL MATURITY
Castoridae	<i>Castor canadensis</i> beaver	lakes and stream bordered with poplars, birches or other food trees	Jan to Feb	usually May but sometimes as late as September	kits stay with the parents for two years	2-3 years
Cricetidae	<i>Zibethicus</i> muskrat	freshwater marshes and slow moving streams	immediately after spring break up in March, April or May	less than one month after mating; females normally have another litter one month after the first	6 weeks after birth	1 year

**APPENDIX B: APPLICABLE LEGISLATION**

Constraints placed on projects through legislation are those relating to the design or construction or the carrying out of a watercourse or wetland alteration by specific clauses in various Acts and Regulations of the Legislature of Prince Edward Island and the Parliament of Canada. **Note: Permits for Watercourse, Wetland and Buffer Zone Activities may be refused for non-compliance with the following Acts, and any other applicable Acts of the Legislature of Prince Edward Island of the Parliament of Canada.**

## **A. Provincial Legislation**

The following are a list of provincial Acts and Regulations that may apply to the design, construction and/or carrying out of a watercourse, wetland or buffer zone activity. Electronic copies of these Acts and Regulations may be downloaded from the provincial government website (<http://www.gov.pe.ca>).

### **Engineering Profession Act**

The Engineering Profession Act, administered by *The Association of Professional Engineers of Prince Edward Island*, is intended to regulate and govern the profession of engineering to protect and serve the public interest. The Act places restrictions on who can design engineering works and systems. Copies of the Engineering Profession Act may be attained from your local *Access PEI* office or downloaded from the provincial government website listed above.

### **Environmental Protection Act**

Watercourse, wetland and buffer zone activities are, in part, controlled by the Watercourse and Wetland Protection Regulations of the Prince Edward Island Environmental Protection Act, R.S.P.E.I. 1988, Cap. E-9. It is administered by the *Prince Edward Island Department of Communities, Land and Environment*. A copy of the Watercourse and Wetland Protection Regulations can be found in Appendix G of this document, may be attained from your local *Access PEI* office or downloaded from the provincial government website listed above. The legal requirements for various project activities can be found in the following sections of the Watercourse and Wetland Protection Regulations:

- Sections 2, 3 and 6 - requirement that a permit be obtained before commencing a project;
- Section 2 – requirements for watercourses and wetlands;
- Section 3 – requirements for buffer zones;
- Section 11 - outlines who may enforce the Regulations.

### **Planning Act**

Planning Act Regulations are controlled by the Planning Act R.S.P.E.I. 1988, Cap. P-8 and are administered by the *Prince Edward Island Department of Communities, Land and Environment*. Assistance in sustainable development is available for public and private individuals and organizations. For most areas in the Province, decisions on the approval or denial of subdivision applications or building permits are made by the Provincial Government, specifically the *Department of Communities, Land and Environment*. Copies of the Planning Act may be attained from your local *Access PEI* office or downloaded from the provincial government website listed above.

### **Trespass to Property Act**

The Trespass to Property Act outlines prohibitions of entry or certain activity on premises and is administered by the *Department of Justice and Public Safety*. Copies of the Trespass to Property Act may be attained from your local *Access PEI* office or downloaded from the provincial government website listed above.

### **Wildlife Conservation Act**

The Wildlife Conservation Act replaces the Fish and Game Protection Act which has been repealed. The Act is administered by the *Prince Edward Island Department of Communities, Land and Environment* and provides for the protection, management and conservation of wildlife and wildlife habitat in the province. Copies of the Wildlife Conservation Act may be attained from your local *Access PEI* office or downloaded from the provincial government website listed above.

## **B. Federal Legislation**

### **Fisheries Act**

The Fisheries Act enables *Fisheries and Oceans Canada* to protect fish and the natural environment systems that support fish. The Fisheries Act defines Fish to include all phases of life as,

- (a) parts of fish
- (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and
- (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, hellfish, crustaceans and marine animals.

It is a requirement to provide fish passage facilities at obstructions where the need is determined by the Minister of Fisheries under the authority of the Canadian Fisheries Act. In planning a watercourse or wetland activity, applicants should acquaint themselves with the requirements under the Fisheries Act. A copy of the Fisheries Act can be found in Appendix C of this document and is available on request from any office of *Fisheries and Oceans Canada*.

The legal requirements for various project activities can be found in the following sections of the Fisheries Act:

- Section 20 relates to fishways
- Section 21 covers fish guards and screens
- Section 35 covers the serious harm to fish
- Section 36 covers the deposit of deleterious substances
- Section 37 covers additional powers of the Minister
- Section 38 covers the duty to notify

### **Navigable Waters Protection Act**

*Transport Canada* administers the Navigable Waters Protection Act. This act was developed to protect navigable waters for the purposes of navigation. The Minister of Transport must approve of any project involving the construction or placement of any structure, in, upon, over, under, through, or across any navigable water. A copy of this Act may be attained upon request from any *Transport Canada* office.

### **Species at Risk Act**

Fisheries and Oceans Canada is also responsible for protecting aquatic species at risk under the Species at Risk Act (SARA). Once a species is listed under the Species at Risk Act, it becomes illegal to kill, harass, capture or harm it in any way. Critical habitats are also protected from destruction. The Act also requires that recovery strategies, action plans and management plans be developed for all listed species.

SARA provides a specific role for the federal government in species protection and includes a number of protection provisions. The prohibitions for individuals of extirpated, endangered and threatened species apply immediately upon listing of aquatic species. These prohibitions do not

apply to species listed as special concern. A recovery strategy and one or more action plans are required for all extirpated, endangered or threatened species; a management plan is required for all species of special concern.

The *Species at Risk Act* is designed as a key tool to prevent wildlife species from becoming extinct and to ensure actions for their recovery. The Act complements existing federal, provincial and territorial legislation protecting wildlife. Fisheries and Oceans Canada is required to protect listed aquatic species at risk on the List of Wildlife Species at Risk (Schedule 1) under SARA and their critical habitat.

Applicants need to be aware that their activities in or near a watercourse/wetland could have an impact on a species at risk or its critical habitat. The presence of species at risk should be considered during the planning stages to ensure that the proposed activities will not result in a contravention of the SARA prohibitions for aquatic species at risk. It is a requirement to comply with the following SARA prohibitions, that apply to species designated Threatened, Endangered and Extirpated on the List of Wildlife Species at Risk (Schedule 1) of SARA (<http://laws.justice.gc.ca/eng/S-15.3/page-11.html>).

**Section 32:** prohibitions against the killing, harming, harassing, capturing, taking, possessing, collecting, buying, selling or trading of individuals.

**Section 33:** prohibition against the damage or destruction of their residences (e.g. nest).

**Section 58:** prohibition against the destruction of a species at risk's critical habitat.

SARA is integrated during DFO's Fisheries Act referral review process and in the Canadian Environmental Assessment Act (CEAA 2012) process. CEAA 2012 identified 3 Responsible Authorities (National Energy Board, Canadian Nuclear Safety Commission and the Canadian Environmental Agency) that are required to consider the effects of projects on species at risk subject during Environmental Assessments. In this process, DFO will provide expert advice to the three RAs relative to aquatic species at risk.

This will ensure that the proposed activities will not contravene the SARA prohibitions and are consistent with recovery objectives for the species or its critical habitat. It is the applicant's responsibility to contact Environment Canada should they have concerns about terrestrial species at risk.

Applicants can undertake the following steps to ensure compliance with SARA: understand your responsibilities under the Act; determine if species at risk are found on or near the proposed activity; take action to comply with the Act; and protect species at risk and their habitat.

For further information, contact the Department of Fisheries and Oceans: Telephone:506-851-7780; e-mail: [GLF-SARA-LEP@dfo-mpo.gc.ca](mailto:GLF-SARA-LEP@dfo-mpo.gc.ca) or visit the SARA registry website:

[http://www.sararegistry.gc.ca/default\\_e.cfm](http://www.sararegistry.gc.ca/default_e.cfm)

### **Oceans Act**

Fisheries and Oceans Canada administers the Oceans Act.

Agenda 21, Chapter 17 (***Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources***) in essence, is the informing document of the Canada's *Oceans Act*.

The five major Canadian legislative and policy initiatives of the past decade are the *Oceans Act (1996)*, *Canada's Oceans Strategy (2002)*, *Policy and Operational Framework for Integrated Management in Estuarine, Coastal and Marine Environments in Canada (2002)* and the *Oceans Action Plan (2005)*, The National Framework for Canada's Network of Marine Protected Areas (2011). The act provides the intent and legislative requirement and the policy statements, along with the Oceans Action Plan, form the basis under which the Government of Canada will



implement the Act. The Framework provides strategic direction for establishment of a national network of marine protected areas that conforms to international best practices and helps to achieve broader conservation and sustainable development objectives identified through Integrated Oceans management and other marine spatial planning processes.

- Update with most recent Fisheries act from Dept. of Justice website

<http://laws-lois.justice.gc.ca/eng/acts/F-14/> there the most up to date version is available in PDF format.

- Remove Policy for management of fish habitat... Replace by Fisheries Protection Policy on DFO website

<http://www.dfo-mpo.gc.ca/pnw-ppe/pol/index-eng.html> there the new Fisheries Protection Policy Statement is available in PDF format.

- Remove chapter 5 entitles: Procedures to apply the no net loss principle
- Remove ANNEX: THE LEGISLATIVE MANDATE. In the new Fisheries Protection Policy statement. The legislative mandate is contained in appendices 1 & 2

The Oceans Act states that the Minister of Fisheries and Oceans: *“in collaboration with other ministers, boards and agencies of the Government of Canada, with provincial and territorial governments and with affected aboriginal organizations, coastal communities and other persons and bodies, including those bodies established under land claims agreements, shall lead and facilitate the development and implementation of plans for the integrated management of all activities or measures in or affecting estuaries, coastal waters and marine waters that form part of Canada or in which Canada has sovereign rights under international law”*. The key elements from this article are the requirement to collaborate and the broad scope of the actors whose participation is expected and encouraged within the process.

The three main program components of the *Oceans Act* are 1) the establishment of marine environmental quality guidelines, objectives and criteria respecting estuaries, coastal waters and marine waters. 2) the establishment of marine protected areas, including the instruction to lead and coordinate the development and implementation of a national system of marine protected areas on behalf of the Government of Canada and 3) implementing plans for the integrated management of estuaries, coastal waters and marine waters in Canada.

The applicables sections and subsections are as follows:

**31.** The Minister, in collaboration with other ministers, boards and agencies of the Government of Canada, with provincial and territorial governments and with affected aboriginal organizations, coastal communities and other persons and bodies, including those bodies established under land claims agreements, shall lead and facilitate the development and implementation of plans for the integrated management of all activities or measures in or affecting estuaries, coastal waters and marine waters that form part of Canada or in which Canada has sovereign rights under international law.

#### Implementation of integrated management plans

**32.** For the purpose of the implementation of integrated management plans, the Minister

(a) shall develop and implement policies and programs with respect to matters assigned by law to the Minister;

(b) shall coordinate with other ministers, boards and agencies of the Government of Canada the implementation of policies and programs of the Government with respect to all activities or measures in or affecting coastal waters and marine waters;

(c) may, on his or her own or jointly with another person or body or with another minister, board or agency of the Government of Canada, and taking into consideration the views of other ministers, boards and agencies of the Government of Canada, provincial and territorial governments and affected aboriginal organizations, coastal communities and other persons and bodies, including those bodies established under land claims agreements,

(i) establish advisory or management bodies and appoint or designate, as appropriate, members of those bodies, and

(ii) recognize established advisory or management bodies; and

(d) may, in consultation with other ministers, boards and agencies of the Government of Canada, with provincial and territorial governments and with affected aboriginal organizations, coastal communities and other persons and bodies, including those bodies established under land claims agreements, establish marine environmental quality guidelines, objectives and criteria respecting estuaries, coastal waters and marine waters.

#### Marine protected areas

**35.** (1) A marine protected area is an area of the sea that forms part of the internal waters of Canada, the territorial sea of Canada or the exclusive economic zone of Canada and has been designated under this section for special protection for one or more of the following reasons:

(a) the conservation and protection of commercial and non-commercial fishery resources, including marine mammals, and their habitats;

(b) the conservation and protection of endangered or threatened marine species, and their habitats;

(c) the conservation and protection of unique habitats;

(d) the conservation and protection of marine areas of high biodiversity or biological productivity; and

(e) the conservation and protection of any other marine resource or habitat as is necessary to fulfil the mandate of the Minister.

#### Marine protected areas

(2) For the purposes of integrated management plans referred to in sections 31 and 32, the Minister will lead and coordinate the development and implementation of a national system of marine protected areas on behalf of the Government of Canada.

#### Regulations

(3) The Governor in Council, on the recommendation of the Minister, may make regulations

(a) designating marine protected areas; and

(b) prescribing measures that may include but not be limited to

(i) the zoning of marine protected areas,

(ii) the prohibition of classes of activities within marine protected areas, and

(iii) any other matter consistent with the purpose of the designation.

**APPENDIX C: FISHERIES ACT**



CANADA

CONSOLIDATION

CODIFICATION

## Fisheries Act

## Loi sur les pêches

R.S.C., 1985, c. F-14

L.R.C. (1985), ch. F-14

Current to June 21, 2016

À jour au 21 juin 2016

Last amended on April 5, 2016

Dernière modification le 5 avril 2016

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## OFFICIAL STATUS OF CONSOLIDATIONS

Subsections 31(1) and (2) of the *Legislation Revision and Consolidation Act*, in force on June 1, 2009, provide as follows:

### Published consolidation is evidence

**31 (1)** Every copy of a consolidated statute or consolidated regulation published by the Minister under this Act in either print or electronic form is evidence of that statute or regulation and of its contents and every copy purporting to be published by the Minister is deemed to be so published, unless the contrary is shown.

### Inconsistencies in Acts

**(2)** In the event of an inconsistency between a consolidated statute published by the Minister under this Act and the original statute or a subsequent amendment as certified by the Clerk of the Parliaments under the *Publication of Statutes Act*, the original statute or amendment prevails to the extent of the inconsistency.

## NOTE

This consolidation is current to June 21, 2016. The last amendments came into force on April 5, 2016. Any amendments that were not in force as of June 21, 2016 are set out at the end of this document under the heading “Amendments Not in Force”.

## CARACTÈRE OFFICIEL DES CODIFICATIONS

Les paragraphes 31(1) et (2) de la *Loi sur la révision et la codification des textes législatifs*, en vigueur le 1<sup>er</sup> juin 2009, prévoient ce qui suit :

### Codifications comme élément de preuve

**31 (1)** Tout exemplaire d'une loi codifiée ou d'un règlement codifié, publié par le ministre en vertu de la présente loi sur support papier ou sur support électronique, fait foi de cette loi ou de ce règlement et de son contenu. Tout exemplaire donné comme publié par le ministre est réputé avoir été ainsi publié, sauf preuve contraire.

### Incompatibilité – lois

**(2)** Les dispositions de la loi d'origine avec ses modifications subséquentes par le greffier des Parlements en vertu de la *Loi sur la publication des lois* l'emportent sur les dispositions incompatibles de la loi codifiée publiée par le ministre en vertu de la présente loi.

## NOTE

Cette codification est à jour au 21 juin 2016. Les dernières modifications sont entrées en vigueur le 5 avril 2016. Toutes modifications qui n'étaient pas en vigueur au 21 juin 2016 sont énoncées à la fin de ce document sous le titre « Modifications non en vigueur ».

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R.S.C., 1985, c. F-14

L.R.C., 1985, ch. F-14

## An Act respecting fisheries

## Loi concernant les pêches

### Short Title

### Titre abrégé

#### Short title

**1** This Act may be cited as the *Fisheries Act*.

R.S., c. F-14, s. 1.

#### Titre abrégé

**1** *Loi sur les pêches*.

S.R., ch. F-14, art. 1.

### Interpretation

### Définitions et interprétation

#### Definitions

**2 (1)** In this Act,

**Aboriginal**, in relation to a fishery, means that fish is harvested by an Aboriginal organization or any of its members for the purpose of using the fish as food, for social or ceremonial purposes or for purposes set out in a land claims agreement entered into with the Aboriginal organization; (*autochtone*)

**analyst** means a person who is designated under subsection 38(1) to perform the functions of an analyst; (*analyste*)

**Canadian fisheries waters** means all waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada; (*eaux de pêche canadiennes*)

**close time** means a specified period during which fish to which it applies may not be fished, and “closed time” or “closed season” has a similar meaning; (*période d’interdiction* et *période de fermeture* ou *saison de fermeture*)

**commercial**, in relation to a fishery, means that fish is harvested under the authority of a licence for the purpose of sale, trade or barter; (*commerciale*)

**fish** includes

(a) parts of fish,

#### Définitions

**2 (1)** Les définitions qui suivent s’appliquent à la présente loi.

**agent des pêches** Personne désignée à ce titre en vertu du paragraphe 5(1). (*fishery officer*)

**analyste** Personne désignée en vertu du paragraphe 38(1) pour remplir les fonctions d’analyste. (*analyst*)

**autochtone** Qualifie la pêche pratiquée par une organisation autochtone ou ses membres à des fins de consommation personnelle, à des fins sociales ou cérémoniales ou à des fins prévues dans un accord sur des revendications territoriales conclu avec l’organisation autochtone. (*Aboriginal*)

**bateau de pêche** Construction flottante utilisée, équipée ou conçue pour la prise, la transformation ou le transport du poisson. (*fishing vessel*)

**commerciale** Qualifie la pêche pratiquée sous le régime d’un permis en vue de la vente, de l’échange ou du troc du poisson. (*commercial*)

**eaux de pêche canadiennes** Les eaux de la zone de pêche et de la mer territoriale du Canada, ainsi que les eaux intérieures canadiennes. (*Canadian fisheries waters*)

**excuse légitime** [Abrogée, 1991, ch. 1, art. 1]

**(b)** shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and

**(c)** the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals; (*poissons*)

**fishery** includes the area, locality, place or station in or on which a pound, seine, net, weir or other fishing appliance is used, set, placed or located, and the area, tract or stretch of water in or from which fish may be taken by the said pound, seine, net, weir or other fishing appliance, and also the pound, seine, net, weir, or other fishing appliance used in connection therewith; (*pêcherie*)

**fishery guardian** means a person who is designated as a fishery guardian pursuant to subsection 5(1); (*garde-pêche*)

**fishery officer** means a person who is designated as a fishery officer pursuant to subsection 5(1); (*agent des pêches*)

**fish habitat** means spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes; (*habitat*)

**fishing** means fishing for, catching or attempting to catch fish by any method; (*pêche*)

**fishing vessel** means any vessel used, outfitted or designed for the purpose of catching, processing or transporting fish; (*bateau de pêche*)

**fishway** means any device, work or other thing that provides for the free passage of fish, including a canal, a fish pump, a fish ladder, a fish elevator and a fish lock; (*passé migratoire*)

**inspector** means a person who is designated as an inspector pursuant to subsection 38(1); (*inspecteur*)

**lawful excuse** [Repealed, 1991, c. 1, s. 1]

**Minister** means the Minister of Fisheries and Oceans or, in respect of any matter related to the Northern Pipeline referred to in the *Northern Pipeline Act*, the member of the Queen's Privy Council for Canada designated as the Minister for the purposes of that Act; (*ministre*)

**obstruction** means any slide, dam or other thing impeding wholly or partially the free passage of fish; (*obstacle*)

**garde-pêche** Personne désignée à ce titre en vertu du paragraphe 5(1). (*fishery guardian*)

**habitat** S'agissant du poisson, toute aire dont dépend, directement ou indirectement, sa survie, notamment les frayères, les aires d'alevinage, de croissance ou d'alimentation et les routes migratoires. (*fish habitat*)

**inspecteur** Personne désignée à ce titre en vertu du paragraphe 38(1). (*inspector*)

**ministre** Le ministre des Pêches et des Océans ou, pour toute mesure ayant trait au pipe-line du Nord, le membre du Conseil privé de la Reine pour le Canada chargé de l'application de la *Loi sur le pipe-line du Nord*. (*Minister*)

**obstacle** Barrage, glissoir ou toute autre chose empêchant, partiellement ou complètement, le libre passage du poisson. (*obstruction*)

**passé migratoire** Tout dispositif, tout ouvrage ou toute autre chose qui permet le libre passage du poisson, notamment une pompe à poisson, une échelle à poisson, un ascenseur à poisson et une écluse à poisson. (*fishway*)

**pêche** Fait de prendre ou de chercher à prendre du poisson par quelque moyen que ce soit. (*fishing*)

**pêcherie** Lieu où se trouve un engin ou équipement de pêche tel que filet simple, filet-piège, senne, bordigue, ou étendue d'eau où le poisson peut être pris au moyen de l'un de ces engins ou équipements; y sont assimilés ces engins ou équipements de pêche eux-mêmes. (*fishery*)

**période d'interdiction** Période spécifiée pendant laquelle le poisson visé ne peut être pêché; **période de fermeture** ou **saison de fermeture** ont le même sens. (*close time*)

**poissons**

**a)** Les poissons proprement dits et leurs parties;

**b)** par assimilation :

**(i)** les mollusques, les crustacés et les animaux marins ainsi que leurs parties,

**(ii)** selon le cas, les œufs, le sperme, la laitance, le frai, les larves, le naissain et les petits des animaux mentionnés à l'alinéa a) et au sous-alinéa (i). (*fish*)

**récréative** Qualifie la pêche pratiquée sous le régime d'un permis à des fins sportives ou personnelles. (*recreational*)

**recreational**, in relation to a fishery, means that fish is harvested under the authority of a licence for personal use of the fish or for sport; (*récréative*)

**vehicle** means any conveyance that may be used for transportation, including aircraft. (*véhicule*)

### Serious harm to fish

**(2)** For the purposes of this Act, serious harm to fish is the death of fish or any permanent alteration to, or destruction of, fish habitat.

R.S., 1985, c. F-14, s. 2; R.S., 1985, c. 35 (1st Supp.), ss. 1, 5; 1991, c. 1, s. 1; 2012, c. 19, s. 133, c. 31, s. 175.

## Purposes

**2.1** [Repealed, R.S., 1985, c. 35 (1st Supp.), s. 6]

## Application

### Provincial rights not affected

**3 (1)** Nothing in this Act shall be taken to authorize the granting of fishery leases that confer an exclusive right to fish in property belonging to a province.

### Application of Act to Her Majesty

**(2)** This Act is binding on Her Majesty in right of Canada or a province.

R.S., c. F-14, s. 3; R.S., c. 17(1st Supp.), s. 9.

### Licences to take spawn

**4** Nothing in this Act precludes the granting by the Minister of written permission to obtain fish for purposes of stocking or artificial breeding or for scientific purposes.

R.S., c. F-14, s. 4.

## Agreements, Programs and Projects

### Minister may enter into agreements

**4.1 (1)** The Minister may enter into an agreement with a province to further the purposes of this Act, including an agreement with respect to one or more of the following:

- (a)** facilitating cooperation between the parties to the agreement, including facilitating joint action in areas of common interest, reducing overlap between their respective programs and otherwise harmonizing those programs;

**véhicule** Tout moyen de transport, notamment aéronef. (*vehicle*)

### Domages sérieux

**(2)** Pour l'application de la présente loi, la mort de tout poisson ou la modification permanente ou la destruction de son habitat sont considérées comme des dommages sérieux.

L.R. (1985), ch. F-14, art. 2; L.R. (1985), ch. 35 (1<sup>er</sup> suppl.), art. 1 et 5; 1991, ch. 1, art. 1; 2012, ch. 19, art. 133, ch. 31, art. 175.

## Objet

**2.1** [Abrogé, L.R. (1985), ch. 35 (1<sup>er</sup> suppl.), art. 6]

## Application

### Respect des droits provinciaux

**3 (1)** La présente loi n'a pas pour effet d'autoriser l'octroi de baux conférant un droit exclusif de pêcher dans le domaine public provincial.

### Obligation de Sa Majesté

**(2)** La présente loi lie Sa Majesté du chef du Canada ou d'une province.

S.R., ch. F-14, art. 3; S.R., ch. 17(1<sup>er</sup> suppl.), art. 9.

### Permission de prendre du poisson

**4** La présente loi ne porte pas atteinte au droit du ministre d'accorder la permission écrite de se procurer du poisson à des fins de repeuplement ou de reproduction artificielle, ou dans un but scientifique.

S.R., ch. F-14, art. 4.

## Accords, programmes et projets

### Pouvoirs du ministre

**4.1 (1)** Le ministre peut conclure avec toute province un accord visant la réalisation des objectifs de la présente loi, notamment en vue de faciliter :

- a)** une plus grande collaboration entre les parties afin, entre autres, de favoriser l'action concertée dans des domaines d'intérêt commun, l'harmonisation de leurs programmes respectifs et la réduction des chevauchements;

**(b)** facilitating enhanced communication between the parties, including the exchange of scientific and other information; and

**(c)** facilitating public consultation or the entry into arrangements with third-party stakeholders.

### Contents of agreement

**(2)** An agreement may establish

**(a)** the roles, powers and functions of the parties;

**(b)** programs and projects;

**(c)** principles and objectives of the parties' respective programs and projects;

**(d)** standards, guidelines and codes of practice to be followed by the parties in the administration of their respective programs and projects;

**(e)** processes for policy development, operational planning and communication between the parties, including the exchange of scientific and other information;

**(f)** the administrative structures that will be used to carry out the agreement's objectives;

**(g)** the power of the parties to create committees and public panels and to conduct public consultations; and

**(h)** the circumstances and manner in which the province is to provide information on the administration and enforcement of a provision of its laws that the agreement provides is equivalent in effect to a provision of the regulations.

### Regulations

**(3)** The Governor in Council may make regulations establishing the conditions under which the Minister may enter into or renew an agreement, including procedures for entering into or renewing the agreement.

### Agreements to be published

**(4)** The Minister shall publish an agreement in the manner that he or she considers appropriate.

2012, c. 19, s. 134.

### Declaration of equivalent provisions

**4.2 (1)** If an agreement entered into under section 4.1 provides that there is in force a provision under the laws of the province that is equivalent in effect to a provision of the regulations, the Governor in Council may, by order, declare that certain provisions of this Act or of the

**b)** une meilleure communication entre les parties, notamment par l'échange de renseignements scientifiques ou autres;

**c)** la consultation du public ou la conclusion d'ententes avec des tiers intéressés.

### Contenu de l'accord

**(2)** L'accord peut prévoir :

**a)** les rôles et attributions des parties;

**b)** les programmes et projets à mettre en œuvre;

**c)** les principes et objectifs relatifs aux programmes et projets de chaque partie;

**d)** les normes, lignes directrices et codes de conduite devant être suivis par les parties dans la mise en œuvre de leurs programmes et projets respectifs;

**e)** les processus applicables à l'élaboration des orientations, à la planification des opérations et à la communication entre les parties, notamment l'échange de renseignements scientifiques ou autres;

**f)** les structures administratives pour mettre l'accord en œuvre;

**g)** le pouvoir des parties de créer des comités ou des groupes de discussion publics ou de tenir des consultations publiques;

**h)** les circonstances et les modalités de la communication par la province de renseignements sur la mise en œuvre de toute disposition du droit de la province dont il prévoit que l'effet est équivalent à celui d'une disposition des règlements.

### Règlements

**(3)** Le gouverneur en conseil peut, par règlement, établir les conditions que doit respecter le ministre lorsqu'il conclut ou renouvelle un accord, notamment la marche à suivre.

### Publication de l'accord

**(4)** Le ministre publie l'accord de la manière qu'il estime indiquée.

2012, ch. 19, art. 134.

### Effet équivalent

**4.2 (1)** Lorsqu'un accord visé à l'article 4.1 prévoit qu'une disposition du droit de la province est d'effet équivalent à celui d'une disposition des règlements, le gouverneur en conseil peut, par décret, déclarer que certaines dispositions de la présente loi ou des règlements

regulations do not apply in the province with respect to the subject matter of the provision under the laws of the province.

### Non-application of provisions

(2) Except with respect to Her Majesty in right of Canada, the provisions of this Act or of the regulations that are set out in the order do not apply within that province with respect to the subject matter of the provision under the laws of the province.

### Revocation

(3) The Governor in Council may revoke the order if the Governor in Council is satisfied that the provision under the laws of the province is no longer equivalent in effect to the provision of the regulations or is not being adequately administered or enforced.

### Notice to province

(4) The Governor in Council may revoke the order only if the Minister has given notice of the proposed revocation to the province.

### Order ceases to have effect

(5) The order ceases to have effect either when it is revoked by the Governor in Council or when the agreement to which the order relates terminates or is terminated.

2012, c. 19, s. 134.

### Report to Parliament

4.3 The Minister shall, as soon as feasible after the end of each fiscal year, prepare and cause to be laid before each house of Parliament a report on the administration of sections 4.1 and 4.2 in that fiscal year.

2012, c. 19, s. 134.

### Objectives

4.4 (1) The Minister may implement programs and projects for the purposes of this Act and, to facilitate the implementation of a program or project, may

- (a) make grants and contributions;
- (b) make loans;
- (c) make recoverable expenditures on behalf of any person or body, or any federal or provincial minister, department or agency; and
- (d) guarantee the repayment of any financial obligation, or provide loan insurance or credit insurance in respect of such an obligation.

ne s'appliquent pas dans la province à l'égard du sujet visé par la disposition du droit de la province.

### Non-application

(2) Sauf à l'égard de Sa Majesté du chef du Canada, la disposition de la présente loi ou des règlements visée dans le décret ne s'applique pas dans la province concernée à l'égard du sujet visé par la disposition du droit de la province.

### Révocation

(3) Le gouverneur en conseil peut révoquer le décret s'il est d'avis que la disposition du droit de la province n'est pas mise en œuvre adéquatement ou qu'elle n'a plus un effet équivalent à celui de la disposition des règlements visée dans le décret.

### Avis

(4) Le gouverneur en conseil ne peut révoquer le décret que si le ministre en a avisé la province concernée.

### Cessation d'effet

(5) Le décret cesse d'avoir effet lorsqu'il est révoqué par le gouverneur en conseil ou lorsque l'accord en cause prend fin.

2012, ch. 19, art. 134.

### Rapport au Parlement

4.3 Le ministre établit, dans les meilleurs délais suivant la fin de chaque exercice, un rapport portant sur l'application des articles 4.1 et 4.2 au cours de cet exercice et le fait déposer devant chaque chambre du Parlement.

2012, ch. 19, art. 134.

### Objectifs

4.4 (1) Le ministre peut mettre en œuvre des programmes et des projets pour l'application de la présente loi. Il peut, pour faciliter leur mise en œuvre :

- a) accorder des subventions ou contributions;
- b) consentir des prêts;
- c) faire des dépenses pour le compte de toute personne ou de tout organisme ou tout autre ministre, ministère ou organisme fédéral ou provincial et recouvrer les sommes ainsi exposées;
- d) garantir le remboursement de tout engagement financier ou souscrire des assurances-prêts ou assurances-crédit à cet égard.



## Regulations

**(2)** The Governor in Council may, on the recommendation of the Minister and the Minister of Finance, make regulations respecting such grants, contributions, loans, guarantees and insurance.

## Agreements, etc.

**(3)** In exercising powers and performing functions under subsection (1), the Minister may

**(a)** enter into agreements — including an agreement under section 4.1 — or arrangements or transactions with any person or body, or any federal or provincial minister, department or agency; and

**(b)** with the approval of the Minister of Finance, requisition amounts in respect of such an agreement, arrangement or transaction to be paid out of the Consolidated Revenue Fund.

2012, c. 19, s. 134.

# Fishery Officers and Fishery Guardians

## Designation

**5 (1)** The Minister may designate any persons or classes of persons as fishery officers or fishery guardians for the purposes of this Act and may limit in any manner the Minister considers appropriate the powers that a fishery officer or fishery guardian may exercise under this Act or any other Act of Parliament.

## Certificate of designation

**(2)** Each fishery officer and fishery guardian shall be provided with a certificate in a form the Minister considers appropriate certifying their designation as such and, where the powers of a fishery officer or fishery guardian are limited pursuant to subsection (1), specifying the powers that the officer or guardian may exercise under this Act or any other Act of Parliament.

## Presentation of certificate

**(3)** On entering any place under this Act or any other Act of Parliament, a fishery officer or fishery guardian shall, on request, show the certificate of designation to the person in charge of the place.

## Laws of certain First Nations

**(4)** The powers and protections that a fishery officer or fishery guardian has under this or any other Act of Parliament, including the powers and protections of a peace

## Règlements

**(2)** Le gouverneur en conseil peut, sur recommandation du ministre et du ministre des Finances, prendre des règlements concernant les subventions, contributions, prêts, garanties et assurances.

## Accords

**(3)** Dans l'exercice des attributions que lui confère le paragraphe (1), le ministre peut :

**a)** conclure des accords — notamment ceux visés à l'article 4.1 —, arrangements ou opérations avec toute personne ou tout organisme ou tout ministre, ministre ou organisme fédéral ou provincial;

**b)** avec l'approbation du ministre des Finances, demander que soient prélevés sur le Trésor les fonds relatifs à de tels accords, arrangements ou opérations.

2012, ch. 19, art. 134.

# Agents des pêches et gardes-pêche

## Désignation

**5 (1)** Le ministre peut désigner toute personne ou catégorie de personnes à titre d'agents des pêches ou de gardes-pêche pour l'application de la présente loi et peut restreindre, de la façon qu'il estime indiquée, les pouvoirs qu'un agent des pêches ou un garde-pêche est autorisé à exercer sous le régime de cette loi ou de toute autre loi fédérale.

## Certificat de désignation

**(2)** Les personnes désignées à titre d'agents des pêches ou de gardes-pêche reçoivent un certificat de désignation dont la forme est approuvée par le ministre; celles dont les pouvoirs sont restreints reçoivent un certificat où sont énumérés ceux qu'elles sont autorisées à exercer.

## Présentation du certificat

**(3)** L'agent des pêches et le garde-pêche sont tenus de présenter leur certificat de désignation, sur demande, au responsable du lieu qui fait l'objet de leur intervention.

## Lois de certaines premières nations

**(4)** Les agents des pêches et les gardes-pêche disposent des pouvoirs et protections qui leur sont conférés par la présente loi ou toute autre loi fédérale, y compris ceux

officer under the *Criminal Code*, apply to a fishery officer or fishery guardian enforcing

**(a)** Nisga'a laws made under the Fisheries Chapter of the Nisga'a Final Agreement given effect by the *Nisga'a Final Agreement Act*;

**(a.1)** Tla'amin Laws, as defined in subsection 2(2) of the *Tla'amin Final Agreement Act*, made under Chapter 9 of the Agreement, as defined in subsection 2(1) of that Act, given effect by that Act;

**(b)** Tsawwassen Laws, within the meaning of subsection 2(2) of the *Tsawwassen First Nation Final Agreement Act*, made under chapter 9 of the Agreement, as defined in subsection 2(1) of that Act, given effect by that Act; or

**(c)** Maanulth Laws, within the meaning of subsection 2(2) of the *Maanulth First Nations Final Agreement Act*, made under chapter 10 of the Agreement, as defined in subsection 2(1) of that Act, given effect by that Act.

R.S., 1985, c. F-14, s. 5; 1991, c. 1, s. 2; 2000, c. 7, s. 22; 2008, c. 32, s. 28; 2009, c. 18, s. 21; 2014, c. 11, s. 22.

## Factors To Be Taken into Account

### Factors

**6** Before recommending to the Governor in Council that a regulation be made in respect of section 35 or under paragraph 37(3)(c) or 43(1)(i.01) or subsection 43(5), and before exercising any power under subsection 20(2) or (3) or 21(1), paragraph 35(2)(b) or (c) or subsection 35(3), or under subsection 37(2) with regard to an offence under subsection 40(1) or with regard to harm to fish, the Minister shall consider the following factors:

**(a)** the contribution of the relevant fish to the ongoing productivity of commercial, recreational or Aboriginal fisheries;

**(b)** fisheries management objectives;

**(c)** whether there are measures and standards to avoid, mitigate or offset serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or that support such a fishery; and

**(d)** the public interest.

R.S., 1985, c. F-14, s. 6; 1991, c. 1, s. 2; 2012, c. 19, s. 135.

dont disposent les agents de la paix en vertu du *Code criminel*, pour l'exécution des lois suivantes :

**a)** les lois nisga'a adoptées sous le régime du chapitre sur les pêches de l'Accord définitif nisga'a mis en vigueur par la *Loi sur l'Accord définitif nisga'a*;

**a.1)** les lois tlaamines, au sens du paragraphe 2(2) de la *Loi sur l'accord définitif concernant les Tlaamins*, adoptées sous le régime du chapitre 9 de l'accord, au sens du paragraphe 2(1) de cette loi, mis en vigueur par celle-ci;

**b)** les lois tsawwassennes, au sens du paragraphe 2(2) de la *Loi sur l'accord définitif concernant la Première Nation de Tsawwassen*, adoptées sous le régime du chapitre 9 de l'accord, au sens du paragraphe 2(1) de cette loi, mis en vigueur par celle-ci;

**c)** les lois maanulthes, au sens du paragraphe 2(2) de la *Loi sur l'accord définitif concernant les premières nations maanulthes*, adoptées sous le régime du chapitre 10 de l'accord, au sens du paragraphe 2(1) de cette loi, mis en vigueur par celle-ci.

L.R. (1985), ch. F-14, art. 5; 1991, ch. 1, art. 2; 2000, ch. 7, art. 22; 2008, ch. 32, art. 28; 2009, ch. 18, art. 21; 2014, ch. 11, art. 22.

## Facteurs à prendre en considération

### Facteurs

**6** Avant de recommander au gouverneur en conseil de prendre des règlements pour l'application de l'article 35 ou en vertu des alinéas 37(3)c) ou 43(1)i.01) ou du paragraphe 43(5) ou avant d'exercer un pouvoir visé aux paragraphes 20(2) ou (3) ou 21(1), aux alinéas 35(2)b) ou c) ou au paragraphe 35(3), ou au paragraphe 37(2) à l'égard d'une infraction au paragraphe 35(1) ou des dommages aux poissons, le ministre doit tenir compte des facteurs suivants :

**a)** l'importance du poisson visé pour la productivité continue des pêches commerciale, récréative et autochtone;

**b)** les objectifs en matière de gestion des pêches;

**c)** l'existence de mesures et de normes visant à éviter, à réduire ou à contrebalancer les dommages sérieux à tout poisson visé par une pêche commerciale, récréative ou autochtone, ou à tout poisson dont dépend une telle pêche;

**d)** l'intérêt public.

L.R. (1985), ch. F-14, art. 6; 1991, ch. 1, art. 2; 2012, ch. 19, art. 135.

## Purpose

**6.1** The purpose of section 6, and of the provisions set out in that section, is to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries.

2012, c. 19, s. 135.

# Fishery Leases and Licences

## Fishery leases and licences

**7 (1)** Subject to subsection (2), the Minister may, in his absolute discretion, wherever the exclusive right of fishing does not already exist by law, issue or authorize to be issued leases and licences for fisheries or fishing, wherever situated or carried on.

## Idem

**(2)** Except as otherwise provided in this Act, leases or licences for any term exceeding nine years shall be issued only under the authority of the Governor in Council.

R.S., c. F-14, s. 7.

## Fees

**8** Except where licence fees are prescribed in this Act, the Governor in Council may prescribe the fees that are to be charged for fishery or fishing licences.

R.S., c. F-14, s. 8.

## Minister may cancel licence

**9** The Minister may suspend or cancel any lease or licence issued under the authority of this Act, if

**(a)** the Minister has ascertained that the operations under the lease or licence were not conducted in conformity with its provisions; and

**(b)** no proceedings under this Act have been commenced with respect to the operations under the lease or licence.

R.S., 1985, c. F-14, s. 9; R.S., 1985, c. 31 (1st Supp.), s. 95.

# Fish Allocation for Financing Purposes

## Allocation of fish

**10 (1)** For the proper management and control of fisheries and the conservation and protection of fish, the

## Objet

**6.1** L'objet de l'article 6 et des dispositions qui y sont visées est d'assurer la durabilité et la productivité continue des pêches commerciale, récréative et autochtone.

2012, ch. 19, art. 135.

# Baux, permis et licences de pêche

## Baux, permis et licences de pêche

**7 (1)** En l'absence d'exclusivité du droit de pêche conférée par la loi, le ministre peut, à discrétion, octroyer des baux et permis de pêche ainsi que des licences d'exploitation de pêcheries — ou en permettre l'octroi —, indépendamment du lieu de l'exploitation ou de l'activité de pêche.

## Réserve

**(2)** Sous réserve des autres dispositions de la présente loi, l'octroi de baux, permis et licences pour un terme supérieur à neuf ans est subordonné à l'autorisation du gouverneur général en conseil.

S.R., ch. F-14, art. 7.

## Droits

**8** Le gouverneur en conseil peut fixer les droits exigibles pour les licences d'exploitation ou les permis de pêche à l'égard desquels aucun droit n'est déjà prévu par la présente loi.

S.R., ch. F-14, art. 8.

## Révocation par le ministre

**9** Le ministre peut suspendre ou révoquer tous baux, permis ou licences consentis en vertu de la présente loi si :

**a)** d'une part, il constate un manquement à leurs dispositions;

**b)** d'autre part, aucune procédure prévue à la présente loi n'a été engagée à l'égard des opérations qu'ils visent.

L.R. (1985), ch. F-14, art. 9; L.R. (1985), ch. 31 (1<sup>er</sup> suppl.), art. 95.

# Allocation de poisson aux fins de financement

## Allocation de poisson

**10 (1)** Le ministre peut, pour la gestion et la surveillance judiciaires des pêches et pour la conservation

Minister may determine a quantity of fish or of fishing gear and equipment that may be allocated for the purpose of financing scientific and fisheries management activities that are described in a joint project agreement entered into with any person or body, or any federal or provincial minister, department or agency.

#### Quantity in licence

(2) The Minister may specify, in a licence issued under this Act, a quantity of fish or of fishing gear and equipment allocated for the purpose of financing those activities.

R.S., 1985, c. F-14, s. 10; 1991, c. 1, s. 3; 2012, c. 19, s. 411.

**11 to 16** [Repealed, 1991, c. 1, s. 3]

## Lobster Fisheries

**17** [Repealed, 1991, c. 1, s. 4]

#### Licences for lobster pounds

**18 (1)** No one shall maintain a pound or enclosure in which lobsters, legally caught during the open season, are retained for sale during the close season at a place where the pound or enclosure is located, or for export therefrom, except under a licence from the Minister, and no lobsters shall be taken from any such pound or enclosure and disposed of during the close season at the place where it is located, except under a certificate from a fishery officer or fishery guardian, setting out the pound or enclosure from which the lobsters were taken and that they had been legally caught during the open season.

#### Marking of pounds

(2) Each pound or enclosure referred to in subsection (1) shall be marked with the name of the licensee and the number of his licence, and the marking shall be in black on a white ground, with letters and figures that are at least six inches in height.

#### Fee

(3) The annual fee for a licence referred to in subsection (1) shall be seventy-five dollars.

R.S., c. F-14, s. 18.

**19** [Repealed, 1991, c. 1, s. 5]

et la protection du poisson, déterminer une quantité de poisson ou d'engins et d'équipements de pêche pouvant être allouée en vue du financement des activités scientifiques et de gestion des pêches visées dans des accords de projets conjoints conclus avec toute personne ou tout organisme ou tout ministre, ministère ou organisme fédéral ou provincial.

#### Quantité visée par un permis

(2) Le ministre peut, sur le permis octroyé en vertu de la présente loi, indiquer la quantité de poisson ou d'engins et d'équipements de pêche allouée en vue de ce financement.

L.R. (1985), ch. F-14, art. 10; 1991, ch. 1, art. 3; 2012, ch. 19, art. 411.

**11 à 16** [Abrogés, 1991, ch. 1, art. 3]

## Exploitation du homard

**17** [Abrogé, 1991, ch. 1, art. 4]

#### Licence d'exploitation de parcs à homards ou de viviers

**18 (1)** Il est interdit, sans une licence délivrée par le ministre, de garder dans un parc ou un vivier des homards, légalement pris pendant la saison de pêche, pour vente sur les lieux pendant la période d'interdiction ou pour exportation. De même, il est interdit de sortir des homards d'un parc ou d'un vivier et de s'en départir sur les lieux pendant la période d'interdiction sans un certificat d'un agent des pêches ou d'un garde-pêche mentionnant le parc ou le vivier d'origine des homards et attestant qu'ils ont été capturés légalement durant la saison de pêche.

#### Marquage du parc ou vivier

(2) Chaque parc ou vivier porte le nom du titulaire de la licence et le numéro de celle-ci en caractères noirs sur fond blanc d'au moins six pouces de haut.

#### Droit

(3) Le droit annuel à verser pour la licence est de soixante-quinze dollars.

S.R., ch. F-14, art. 18.

**19** [Abrogé, 1991, ch. 1, art. 5]

## Fishways

### Studies, analyses, samplings and evaluations

**20 (1)** If the Minister considers that doing so is necessary to ensure the free passage of fish or to prevent harm to fish, the owner or person who has the charge, management or control of an obstruction or any other thing that is harmful to fish shall, on the Minister's request and within the period specified by the Minister, conduct studies, analyses, samplings and evaluations, and provide the Minister with any document or other information relating to them, to the obstruction or thing or to the fish or fish habitat that is affected or is likely to be affected by the obstruction or thing.

### Minister's request

**(2)** If the Minister considers that doing so is necessary to ensure the free passage of fish or to prevent harm to fish, the owner or person who has the charge, management or control of an obstruction or any other thing that is harmful to fish shall, on the Minister's request, within the period specified by the Minister and in accordance with any specifications of the Minister,

- (a)** remove the obstruction or thing;
- (b)** construct a fishway;
- (c)** implement a system of catching fish before the obstruction or thing, transporting them beyond it and releasing them back into the water;
- (d)** install a fish stop or a diverter;
- (e)** install a fish guard, a screen, a covering, netting or any other device to prevent the passage of fish into any water intake, ditch, channel or canal;
- (f)** maintain the flow of water that the Minister considers sufficient to permit the free passage of fish; or
- (g)** permit the escape, into the water below the obstruction or thing, at all times of the quantity of water that the Minister considers sufficient for the safety of fish or for the flooding of fish habitat to an appropriate depth.

### Modification, repair and maintenance

**(3)** On the Minister's request, the owner or person referred to in subsection (2) shall

- (a)** make any provision that the Minister considers necessary for the free passage of fish or to prevent harm to fish during the construction, implementation,

## Passes migratoires

### Études, analyses, évaluations ou échantillonnages

**20 (1)** Si le ministre l'estime nécessaire pour assurer le libre passage des poissons ou prévenir les dommages aux poissons, le propriétaire ou le responsable d'un obstacle — y compris toute autre chose dommageable pour les poissons — doit, à la demande du ministre et dans le délai qu'il précise, effectuer toute étude, analyse ou évaluation ou tout échantillonnage et fournir au ministre tout document et autre renseignement s'y rapportant ou se rapportant à l'obstacle ou à la chose, ou aux poissons ou à l'habitat qui sont touchés ou qui le seront vraisemblablement.

### Demande du ministre

**(2)** Si le ministre l'estime nécessaire pour assurer le libre passage des poissons ou prévenir les dommages aux poissons, le propriétaire ou le responsable d'un obstacle — y compris toute autre chose dommageable pour les poissons — doit, à la demande du ministre et dans le délai et conformément aux spécifications fournies par celui-ci :

- a)** enlever l'obstacle ou la chose;
- b)** construire une passe migratoire;
- c)** mettre sur pied un système permettant la capture du poisson, son transport au-delà de l'obstacle ou de la chose et sa remise à l'eau;
- d)** installer un dispositif d'arrêt ou de déviation;
- e)** installer un grillage, un treillis, un filet ou un autre dispositif pour empêcher le passage du poisson dans un fossé, un chenal, un canal ou une prise d'eau;
- f)** veiller au maintien d'un débit d'eau qui est, de l'avis du ministre, suffisant pour assurer le libre passage du poisson;
- g)** veiller à l'écoulement, dans les eaux en aval de l'obstacle ou de la chose, de la quantité d'eau qui, de l'avis du ministre, suffit à assurer la sécurité du poisson ou la submersion de son habitat à une profondeur adéquate.

### Modification, réparation et entretien

**(3)** Le propriétaire ou le responsable visé au paragraphe (2) doit, à la demande du ministre :

- a)** prendre toute disposition que le ministre juge nécessaire pour assurer le libre passage des poissons ou prévenir les dommages aux poissons pendant tout entretien ou toute construction, installation, mise sur

installation, modification or repair of anything mentioned in that subsection;

**(b)** operate and maintain that thing in a good and effective condition and in accordance with any specifications of the Minister; and

**(c)** modify or repair it in accordance with any specifications of the Minister.

#### **Obstruction of free passage of fish**

**(4)** No person shall

**(a)** damage or obstruct any fishway constructed or used to enable fish to pass over or around any obstruction;

**(b)** damage or obstruct any fishway, fish stop or diverter constructed or installed on the Minister's request;

**(c)** stop or hinder fish from entering or passing through any fishway, or from surmounting any obstacle or leap;

**(d)** damage, remove or authorize the removal of any fish guard, screen, covering, netting or other device installed on the Minister's request; or

**(e)** fish in any manner within 23 m downstream from the lower entrance to any fishway, obstruction or leap.

#### **Exception — removal for repairs**

**(5)** Despite paragraph (4)(d), a person may remove or authorize the removal of any fish guard, screen, covering, netting or other device installed on the Minister's request if the removal is required for modification, repair or maintenance.

R.S., 1985, c. F-14, s. 20; 2012, c. 19, s. 136, c. 31, s. 176.

#### **Devices to prevent escape of fish**

**21 (1)** The Minister may authorize the installation and maintenance of fish guards, screens, coverings, netting or other devices in waters to prevent fish held for breeding from escaping or for any other purpose that the Minister considers to be in the public interest.

#### **Removal**

**(2)** No person shall damage, remove or authorize the removal of such a fish guard, screen, covering, netting or other device, unless they are authorized to do so by the Minister.

R.S., 1985, c. F-14, s. 21; 2012, c. 19, s. 136.

pied, modification ou réparation faits au titre de ce paragraphe;

**b)** veiller à ce que tout élément visé à ce paragraphe soit en bon état et soit utilisé et entretenu conformément aux spécifications fournies par le ministre;

**c)** modifier ou réparer un tel élément conformément aux spécifications fournies par le ministre.

#### **Obstruction — passage du poisson**

**(4)** Il est interdit :

**a)** d'endommager ou d'obstruer une passe migratoire construite ou utilisée pour permettre au poisson de franchir ou de contourner un obstacle;

**b)** d'endommager ou d'obstruer une passe migratoire ou un dispositif d'arrêt ou de déviation construits ou installés à la demande du ministre;

**c)** de gêner ou d'arrêter le poisson afin de l'empêcher soit d'entrer ou de passer dans une passe migratoire, soit de surmonter un obstacle ou de sauter;

**d)** d'endommager ou d'enlever un grillage, un treillis, un filet ou un autre dispositif installé à la demande du ministre ou d'en autoriser l'enlèvement;

**e)** de pêcher à moins de vingt-trois mètres en aval de l'entrée inférieure de toute passe migratoire ou de tout obstacle ou espace à sauter.

#### **Réserve**

**(5)** Malgré l'alinéa (4)d), il est permis d'enlever un grillage, un treillis, un filet ou un autre dispositif installé à la demande du ministre ou d'en autoriser l'enlèvement si celui-ci est nécessaire pour la modification, la réparation ou l'entretien du dispositif.

L.R. (1985), ch. F-14, art. 20; 2012, ch. 19, art. 136, ch. 31, art. 176.

#### **Dispositifs autorisés**

**21 (1)** Le ministre peut, afin d'empêcher le poisson destiné à la reproduction de s'échapper ou à toute autre fin qu'il juge d'intérêt public, autoriser l'installation, dans des eaux, d'un grillage, d'un treillis, d'un filet ou d'un autre dispositif ainsi que son entretien.

#### **Enlèvement**

**(2)** Il est interdit, sans l'autorisation du ministre, d'endommager ou d'enlever tout dispositif visé au paragraphe (1), ou d'en autoriser l'enlèvement.

L.R. (1985), ch. F-14, art. 21; 2012, ch. 19, art. 136.

**22** [Repealed, 2012, c. 19, s. 136]

## General Prohibitions

### Fishing in limits leased to another prohibited

**23** No one shall fish for, take, catch or kill fish in any water, along any beach or within any fishery described in any lease or licence, or place, use, draw or set therein any fishing gear or apparatus, except by permission of the occupant under the lease or licence for the time being, or shall disturb or injure in any such fishery.

R.S., c. F-14, s. 21.

### Seines, nets, etc., not to obstruct navigation

**24** Seines, nets or other fishing apparatus shall not be set or used in such manner or in such place as to obstruct the navigation of boats and vessels and no boats or vessels shall destroy or wantonly injure in any way seines, nets or other fishing apparatus lawfully set.

R.S., c. F-14, s. 22.

### Setting gear during close time

**25 (1)** Subject to the regulations, no person shall place or set any fishing gear or apparatus in any water, along any beach or within any fishery during a close time.

### Removal of gear

**(2)** Subject to the regulations and subsection (3), any person who places or sets any fishing gear or apparatus in any water, along any beach or within any fishery shall remove it when the gear or apparatus is not being tended and prior to the commencement of a close time.

### Officer's discretion

**(3)** A fishery officer may permit fishing gear or apparatus to remain in the water, along a beach or within a fishery after the commencement of a close time for any period the fishery officer considers necessary to permit the removal of the gear or apparatus.

R.S., 1985, c. F-14, s. 25; 1991, c. 1, s. 6.

**26** [Repealed, 2012, c. 19, s. 137]

**27** [Repealed, 2012, c. 19, s. 137]

**22** [Abrogé, 2012, ch. 19, art. 136]

## Interdictions générales

### Défense de pêcher dans les zones louées à d'autres

**23** Il est interdit de pêcher ou de tuer du poisson dans les eaux, sur la grève ou dans une pêcherie mentionnées dans un bail ou une licence, ou d'y mouiller ou utiliser quelque engin ou appareil de pêche, sans la permission de l'occupant selon le bail ou la licence alors en vigueur; il est également interdit de troubler ou d'endommager pareille pêcherie.

S.R., ch. F-14, art. 21.

### Les sennes, filets, etc. ne doivent pas gêner la navigation

**24** Il est interdit de mouiller ou d'utiliser des sennes, filets ou autres engins de pêche de façon à nuire — ou à un endroit où ils pourraient nuire — à la navigation, de même qu'il est interdit aux bateaux de détruire ou d'endommager de façon injustifiée les sennes, filets ou autres engins de pêche légalement mouillés.

S.R., ch. F-14, art. 22.

### Installation d'engins de pêche en période d'interdiction

**25 (1)** Sous réserve des règlements, il est interdit de placer des engins ou appareils de pêche dans les eaux, sur la grève ou dans une pêcherie durant une période d'interdiction.

### Enlèvement des engins de pêche

**(2)** Sous réserve des règlements et du paragraphe (3), les personnes qui placent des engins ou appareils de pêche dans les eaux, sur la grève ou dans une pêcherie sont tenues de les enlever dès qu'elles ont cessé de s'en servir et au plus tard avant le début de la période d'interdiction.

### Décision de l'agent des pêches

**(3)** L'agent des pêches peut permettre de laisser en place des engins ou appareils de pêche après le début d'une période d'interdiction pendant le temps qu'il estime nécessaire à leur enlèvement.

L.R. (1985), ch. F-14, art. 25; 1991, ch. 1, art. 6.

**26** [Abrogé, 2012, ch. 19, art. 137]

**27** [Abrogé, 2012, ch. 19, art. 137]

### Use of explosives prohibited

**28** No one shall hunt or kill fish or marine animals of any kind, other than porpoises, whales, walrus, sea-lions and hair seals, by means of rockets, explosive materials, explosive projectiles or shells.

R.S., c. F-14, s. 26.

### Obstructing passage of fish or waters

**29 (1)** No person shall erect, use or maintain any seine, net, weir or other fishing appliance that

(a) unduly obstructs the passage of fish in any Canadian fisheries waters, whether subject to any exclusive right of fishery or not; or

(b) obstructs more than two thirds of the width of any river or stream or more than one third of the width of the main channel at low tide of any tidal stream.

### Removal

**(2)** The Minister or a fishery officer may order the removal of or remove any seine, net, weir or other fishing appliance that, in the opinion of the Minister or fishery officer, results in an obstruction referred to in paragraph (1)(a) or (b).

### Tidal streams

**(3)** For the purposes of paragraph (1)(b), if a tidal stream has no main channel at low tide, then the tidal stream's width is considered to be the width of its main channel.

R.S., 1985, c. F-14, s. 29; 2012, c. 31, s. 173.

**30** [Repealed, 2012, c. 19, s. 138]

### Permit required

**31 (1)** No one shall catch, fish for, take, buy, sell, possess or export any fish for the purposes of converting it into fish meal, manure, guano or fertilizer, or for the manufacture or conversion of the fish into oil, fish meal or manure or other fertilizing product, except under authority of the Minister.

### Exception by Minister

**(2)** The Minister may, by notice published in the *Canada Gazette*, except any kind or kinds of fish from the operation of all or any part of subsection (1).

R.S., c. F-14, s. 29.

**32** [Repealed, 2012, c. 19, s. 139]

### Interdiction d'utiliser des explosifs

**28** Il est interdit de tuer du poisson, ou de chasser des animaux marins autres que le marsouin, la baleine, le morse, l'otarie et le phoque à poil, au moyen de fusées, d'explosifs ou d'obus ou projectiles explosifs.

S.R., ch. F-14, art. 26.

### Filets, etc. obstruant le passage du poisson

**29 (1)** Il est interdit de construire, d'utiliser ou de mouiller tout engin ou équipement de pêche tel que filet simple, filet-piège ou senne qui :

a) obstrue indûment le passage du poisson dans les eaux de pêche canadiennes, qu'elles fassent ou non l'objet d'un droit de pêche exclusif;

b) obstrue plus des deux tiers de la largeur d'un cours d'eau ou plus d'un tiers de la largeur à marée basse du chenal principal d'un courant de marée.

### Enlèvement

**(2)** Le ministre ou un agent des pêches peut enlever ou faire enlever tout engin ou équipement de pêche tel que filet simple, filet-piège ou senne qui, à son avis, entraîne l'obstruction visée à l'alinéa (1)a) ou b).

### Courant de marée

**(3)** Pour l'application de l'alinéa (1)b), dans le cas où un courant de marée n'a pas de chenal principal à marée basse, la largeur du courant de marée est celle de son chenal principal.

L.R. (1985), ch. F-14, art. 29; 2012, ch. 31, art. 173.

**30** [Abrogé, 2012, ch. 19, art. 138]

### Interdiction générale

**31 (1)** Il est interdit, sauf autorisation du ministre, de pêcher, d'acheter, de vendre, de posséder ou d'exporter du poisson de quelque espèce que ce soit dans le but d'en faire de la farine de poisson, du fumier, du guano ou de l'engrais, ou pour le transformer en huile, farine de poisson, fumier ou autre produit fertilisant.

### Exception

**(2)** Le ministre peut, par avis publié dans la *Gazette du Canada*, soustraire toute espèce de poisson à l'application totale ou partielle du paragraphe (1).

S.R., ch. F-14, art. 29.

**32** [Abrogé, 2012, ch. 19, art. 139]



### Unlawful sale or possession

**33** No person shall purchase, sell or possess any fish that has been caught in contravention of this Act or the regulations.

R.S., 1985, c. F-14, s. 33; 1991, c. 1, s. 8.

### Definition of "fishing plan"

**33.1 (1)** In this section, *fishing plan* means a Nisga'a annual fishing plan, as defined in the Fisheries Chapter of the Nisga'a Final Agreement given effect by the *Nisga'a Final Agreement Act*, that is approved, or varied and approved, by the Minister in accordance with that Agreement.

### Contravention of fishing plan

**(2)** Where a fishing plan stipulates that this subsection applies to certain of its provisions relating to persons engaged in harvesting, sale or related activities, no person shall contravene any of those provisions.

### Conditions of prosecution

**(3)** No proceedings may be commenced in respect of an offence for the contravention of subsection (2)

**(a)** except in accordance with an agreement, made under paragraph 93 of the Fisheries Chapter of the Nisga'a Final Agreement, concerning enforcement of federal laws or Nisga'a laws; or

**(b)** unless the Minister, or a person appointed to a position in the Department of Fisheries and Oceans who is authorized by the Minister, considers such proceedings to be necessary to ensure compliance with the fishing plan.

2000, c. 7, s. 23.

## Fisheries Protection and Pollution Prevention

### Definitions

**34 (1)** For the purposes of sections 35 to 43,

**deleterious substance** means

**(a)** any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water, or

**(b)** any water that contains a substance in such quantity or concentration, or that has been so treated,

### Possession et vente illégales

**33** Il est interdit d'acheter, de vendre ou d'avoir en sa possession du poisson qui a été pêché en contravention avec la présente loi ou les règlements.

L.R. (1985), ch. F-14, art. 33; 1991, ch. 1, art. 8.

### Définition de « plan de pêche »

**33.1 (1)** Au présent article, *plan de pêche* s'entend de tout plan annuel de pêche nisga'a, au sens du chapitre sur les pêches de l'Accord définitif nisga'a mis en vigueur par la *Loi sur l'Accord définitif nisga'a*, approuvé, avec ou sans modification, par le ministre conformément à l'accord.

### Contravention

**(2)** Il est interdit de contrevenir à toute clause du plan de pêche touchant les personnes qui se livrent à la prise ou à la récolte, à la vente ou à d'autres activités connexes dont il stipule qu'elle est assujettie au présent paragraphe.

### Réserve

**(3)** Des poursuites ne peuvent être engagées en vertu du paragraphe (2) sauf, selon le cas :

**a)** en application d'un accord conclu au titre de l'article 93 du chapitre sur les pêches de l'accord relativement à l'exécution des lois fédérales ou des lois nisga'a;

**b)** si le ministre, ou le fonctionnaire du ministère des Pêches et des Océans que celui-ci autorise, les juge nécessaires pour assurer l'application du plan de pêche.

2000, ch. 7, art. 23.

## Protection des pêches et prévention de la pollution

### Définitions

**34 (1)** Les définitions qui suivent s'appliquent aux articles 35 à 43.

**eaux où vivent des poissons** Les eaux de pêche canadiennes. (*water frequented by fish*)

**habitat du poisson** [Abrogée, 2012, ch. 19, art. 141]

**immersion** ou **rejet** Le versement, le déversement, l'écoulement, le suintement, l'arrosage, l'épandage, la vaporisation, l'évacuation, l'émission, le vidage, le jet, la décharge ou le dépôt. (*deposit*)

processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water,

and without limiting the generality of the foregoing includes

(c) any substance or class of substances prescribed pursuant to paragraph (2)(a),

(d) any water that contains any substance or class of substances in a quantity or concentration that is equal to or in excess of a quantity or concentration prescribed in respect of that substance or class of substances pursuant to paragraph (2)(b), and

(e) any water that has been subjected to a treatment, process or change prescribed pursuant to paragraph (2)(c); (*substance nocive*)

**deposit** means any discharging, spraying, releasing, spilling, leaking, seeping, pouring, emitting, emptying, throwing, dumping or placing; (*immersion* ou *rejet*)

**fish habitat** [Repealed, 2012, c. 19, s. 141]

**water frequented by fish** means Canadian fisheries waters. (*eaux où vivent des poissons*)

### Regulations for purpose of definition *deleterious substance*

(2) The Governor in Council may make regulations prescribing

- (a) substances and classes of substances,
- (b) quantities or concentrations of substances and classes of substances in water, and
- (c) treatments, processes and changes of water

for the purpose of paragraphs (c) to (e) of the definition *deleterious substance* in subsection (1).

R.S., 1985, c. F-14, s. 34; 2012, c. 19, s. 141.

### Serious harm to fish

**35 (1)** No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.

### *substance nocive*

**a)** Toute substance qui, si elle était ajoutée à l'eau, altérerait ou contribuerait à altérer la qualité de celle-ci au point de la rendre nocive, ou susceptible de le devenir, pour le poisson ou son habitat, ou encore de rendre nocive l'utilisation par l'homme du poisson qui y vit;

**b)** toute eau qui contient une substance en une quantité ou concentration telle — ou qui, à partir de son état naturel, a été traitée ou transformée par la chaleur ou d'autres moyens d'une façon telle — que, si elle était ajoutée à une autre eau, elle altérerait ou contribuerait à altérer la qualité de celle-ci au point de la rendre nocive, ou susceptible de le devenir, pour le poisson ou son habitat, ou encore de rendre nocive l'utilisation par l'homme du poisson qui y vit.

La présente définition vise notamment les substances ou catégories de substances désignées en application de l'alinéa (2)a), l'eau contenant une substance ou une catégorie de substances en quantités ou concentrations égales ou supérieures à celles fixées en vertu de l'alinéa (2)b) et l'eau qui a subi un traitement ou une transformation désignés en application de l'alinéa (2)c). (*deleterious substance*)

### Règlements

(2) Pour l'application de la définition de *substance nocive* au paragraphe (1), le gouverneur en conseil peut, par règlement :

- a)** désigner certaines substances ou catégories de substances;
- b)** fixer les quantités ou concentrations de certaines substances ou catégories de substances admissibles dans l'eau;
- c)** désigner certains traitements ou transformations qui, apportés à l'eau, en font une substance nocive.

L.R. (1985), ch. F-14, art. 34; 2012, ch. 19, art. 141.

### Domages sérieux aux poissons

**35 (1)** Il est interdit d'exploiter un ouvrage ou une entreprise ou d'exercer une activité entraînant des dommages sérieux à tout poisson visé par une pêche commerciale, récréative ou autochtone, ou à tout poisson dont dépend une telle pêche.

### Exception

**(2)** A person may carry on a work, undertaking or activity without contravening subsection (1) if

**(a)** the work, undertaking or activity is a prescribed work, undertaking or activity, or is carried on in or around prescribed Canadian fisheries waters, and the work, undertaking or activity is carried on in accordance with the prescribed conditions;

**(b)** the carrying on of the work, undertaking or activity is authorized by the Minister and the work, undertaking or activity is carried on in accordance with the conditions established by the Minister;

**(c)** the carrying on of the work, undertaking or activity is authorized by a prescribed person or entity and the work, undertaking or activity is carried on in accordance with the prescribed conditions;

**(d)** the serious harm is produced as a result of doing anything that is authorized, otherwise permitted or required under this Act; or

**(e)** the work, undertaking or activity is carried on in accordance with the regulations.

### Regulations

**(3)** The Minister may, for the purposes of paragraph (2)(a), make regulations prescribing anything that is authorized to be prescribed.

### *Statutory Instruments Act*

**(4)** Regulations made under subsection (3) are exempt from section 3 of the *Statutory Instruments Act*.

R.S., 1985, c. F-14, s. 35; 2012, c. 19, s. 142.

### Throwing overboard of certain substances prohibited

**36 (1)** No one shall

**(a)** throw overboard ballast, coal ashes, stones or other prejudicial or deleterious substances in any river, harbour or roadstead, or in any water where fishing is carried on;

**(b)** leave or deposit or cause to be thrown, left or deposited, on the shore, beach or bank of any water or on the beach between high and low water mark, remains or offal of fish or of marine animals; or

**(c)** leave decayed or decaying fish in any net or other fishing apparatus.

### Exception

**(2)** Il est permis d'exploiter un ouvrage ou une entreprise ou d'exercer une activité sans contrevenir au paragraphe (1) dans les cas suivants :

**a)** l'ouvrage, l'entreprise ou l'activité est visé par règlement ou est exploité ou exercé dans les eaux de pêche canadiennes visées par règlement ou à proximité et l'exploitation de l'ouvrage ou de l'entreprise ou l'exercice de l'activité est conforme aux conditions réglementaires;

**b)** l'exploitation de l'ouvrage ou de l'entreprise ou l'exercice de l'activité est autorisé par le ministre et est conforme aux conditions que celui-ci établit;

**c)** l'exploitation de l'ouvrage ou de l'entreprise ou l'exercice de l'activité est autorisé par toute autre personne ou entité précisée par règlement et est conforme aux conditions réglementaires;

**d)** les dommages sérieux sont entraînés par l'accomplissement d'un acte requis, autorisé ou autrement permis sous le régime de la présente loi;

**e)** l'exploitation de l'ouvrage ou de l'entreprise ou l'exercice de l'activité est conforme aux règlements.

### Règlement

**(3)** Le ministre peut prendre toute mesure d'ordre réglementaire prévue par l'alinéa (2)a).

### *Loi sur les textes réglementaires*

**(4)** Le règlement pris en vertu du paragraphe (3) est soustrait à l'application de l'article 3 de la *Loi sur les textes réglementaires*.

L.R. (1985), ch. F-14, art. 35; 2012, ch. 19, art. 142.

### Interdiction de rejet

**36 (1)** Il est interdit de :

**a)** jeter par-dessus bord du lest, des cendres de charbon, des pierres ou d'autres substances nocives dans une rivière, un port, une rade, ou dans des eaux où se pratique la pêche;

**b)** laisser ou déposer ou faire jeter, laisser ou déposer sur la rive, la grève ou le bord de quelque cours ou nappe d'eau, ou sur la grève entre les laisses de haute et de basse mer, des déchets ou issues de poissons ou d'animaux marins;

**c)** laisser du poisson gâté ou en putréfaction dans un filet ou autre engin de pêche.

### Disposal of remains, etc.

(2) Remains or offal described in subsection (1) may be buried ashore, above high water mark.

### Deposit of deleterious substance prohibited

(3) Subject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

### Deposits authorized by regulation

(4) No person contravenes subsection (3) by depositing or permitting the deposit in any water or place of

(a) waste or pollutant of a type, in a quantity and under conditions authorized by regulations applicable to that water or place made by the Governor in Council under any Act other than this Act;

(b) a deleterious substance of a class and under conditions — which may include conditions with respect to quantity or concentration — authorized under regulations made under subsection (5) applicable to that water or place or to any work or undertaking or class of works or undertakings; or

(c) a deleterious substance the deposit of which is authorized by regulations made under subsection (5.2) and that is deposited in accordance with those regulations.

### Regulations for authorizing certain deposits

(5) The Governor in Council may make regulations for the purpose of paragraph (4)(b) prescribing

(a) the deleterious substances or classes thereof authorized to be deposited notwithstanding subsection (3);

(b) the waters or places or classes thereof where any deleterious substances or classes thereof referred to in paragraph (a) are authorized to be deposited;

(c) the works or undertakings or classes thereof in the course or conduct of which any deleterious substances or classes thereof referred to in paragraph (a) are authorized to be deposited;

(d) the quantities or concentrations of any deleterious substances or classes thereof referred to in paragraph (a) that are authorized to be deposited;

### Déchets

(2) Les déchets ou issues de poissons peuvent être enterrés sur la grève, au-delà de la laisse de haute mer.

### Dépôt de substances nocives prohibé

(3) Sous réserve du paragraphe (4), il est interdit d'immerger ou de rejeter une substance nocive — ou d'en permettre l'immersion ou le rejet — dans des eaux où vivent des poissons, ou en quelque autre lieu si le risque existe que la substance ou toute autre substance nocive provenant de son immersion ou rejet pénètre dans ces eaux.

### Immersion permise par règlement

(4) Par dérogation au paragraphe (3), il est permis d'immerger ou de rejeter :

a) les déchets ou les polluants désignés par les règlements applicables aux eaux ou lieux en cause pris par le gouverneur en conseil en application d'une autre loi, pourvu que les conditions, notamment les quantités maximales, qui y sont fixées soient respectées;

b) les substances nocives appartenant à une catégorie autorisée sous le régime des règlements applicables aux eaux ou lieux en cause, ou aux ouvrages ou entreprises ou à leurs catégories, pris en vertu du paragraphe (5), et ce selon les conditions — notamment quantités et degrés de concentration — prévues sous leur régime;

c) les substances nocives visées par règlement pris en vertu du paragraphe (5.2) si l'immersion ou le rejet est fait conformément à ce règlement.

### Règlements d'application de l'al. (4)b)

(5) Pour l'application de l'alinéa (4)b), le gouverneur en conseil peut, par règlement, déterminer :

a) les substances ou catégories de substances nocives dont l'immersion ou le rejet sont autorisés par dérogation au paragraphe (3);

b) les eaux et les lieux ou leurs catégories où l'immersion ou le rejet des substances ou catégories de substances visées à l'alinéa a) sont autorisés;

c) les ouvrages ou entreprises ou catégories d'ouvrages ou d'entreprises pour lesquels l'immersion ou le rejet des substances ou des catégories de substances visées à l'alinéa a) sont autorisés;

d) les quantités ou les degrés de concentration des substances ou des catégories de substances visées à l'alinéa a) dont l'immersion ou le rejet sont autorisés;

**(e)** the conditions or circumstances under which and the requirements subject to which any deleterious substances or classes thereof referred to in paragraph (a) or any quantities or concentrations of those deleterious substances or classes thereof are authorized to be deposited in any waters or places or classes thereof referred to in paragraph (b) or in the course or conduct of any works or undertakings or classes thereof referred to in paragraph (c); and

**(f)** the persons who may authorize the deposit of any deleterious substances or classes thereof in the absence of any other authority, and the conditions or circumstances under which and requirements subject to which those persons may grant the authorization.

### Regulations — Governor in Council

**(5.1)** The Governor in Council may make regulations establishing conditions for the exercise of the Minister's regulation-making power under subsection (5.2).

### Regulations — Minister

**(5.2)** If regulations have been made under subsection (5.1), the Minister may make regulations

**(a)** authorizing the deposit of deleterious substances specified in the regulations, or substances falling within a class of deleterious substances specified in the regulations;

**(b)** authorizing the deposit of deleterious substances into waters or places falling within a class of waters or places;

**(c)** authorizing the deposit of deleterious substances resulting from a work, undertaking or activity falling within a class of works, undertakings or activities;

**(d)** establishing conditions, which may include conditions with respect to quantity or concentration, for the deposit of deleterious substances referred to in paragraphs (a) to (c); and

**(e)** establishing, for the purposes of paragraphs (a) to (c), classes of

**(i)** deleterious substances,

**(ii)** waters and places, and

**(iii)** works, undertakings and activities.

### Directions by the Minister

**(6)** A person authorized to deposit a deleterious substance by or under regulations made under subsection (5) or (5.2) shall, when directed by the Minister, despite

**e)** les conditions, les quantités, les exigences préalables et les degrés de concentration autorisés pour l'immersion ou le rejet des substances ou catégories de substances visées à l'alinéa a) dans les eaux et les lieux visés à l'alinéa b) ou dans le cadre des ouvrages ou entreprises visés à l'alinéa c);

**f)** les personnes habilitées à autoriser l'immersion ou le rejet de substances ou de catégories de substances nocives en l'absence de toute autre autorité et les conditions et exigences attachées à l'exercice de ce pouvoir.

### Règlement — gouverneur en conseil

**(5.1)** Le gouverneur en conseil peut, par règlement, prévoir les conditions d'exercice par le ministre du pouvoir de prendre un règlement en vertu du paragraphe (5.2).

### Règlement — ministre

**(5.2)** Si un règlement est pris en vertu du paragraphe (5.1), le ministre peut, par règlement :

**a)** autoriser l'immersion ou le rejet des substances nocives qu'il y précise ou qui appartiennent à une catégorie qu'il y précise;

**b)** autoriser l'immersion ou le rejet de substances nocives dans des eaux ou lieux appartenant à une catégorie d'eaux ou de lieux;

**c)** autoriser l'immersion ou le rejet de substances nocives découlant de l'exploitation d'un ouvrage ou d'une entreprise ou de l'exercice d'une activité appartenant à une catégorie d'ouvrages, d'entreprises ou d'activités;

**d)** établir les conditions, notamment les quantités et degrés de concentration, à respecter pour l'immersion ou le rejet visé à l'un des alinéas a) à c);

**e)** établir, pour l'application des alinéas a) à c), des catégories de substances nocives, des catégories d'eaux ou de lieux et des catégories d'ouvrages, d'entreprises et d'activités.

### Instructions ministérielles

**(6)** Malgré les règlements pris en vertu des alinéas (5)e) ou (5.2)d) ou les conditions dont sont assorties les autorisations visées à l'alinéa (5)f), les personnes autorisées à

any regulations made under paragraph (5)(e) or (5.2)(d) or any conditions set out in an authorization made under paragraph (5)(f), conduct any sampling, analyses, tests, measurements or monitoring, install or operate any equipment or comply with any procedures, and report any information, that is required by the Minister in order to determine whether the person is depositing the deleterious substance in the manner authorized.

R.S., 1985, c. F-14, s. 36; 2012, c. 19, s. 143.

### Minister may require plans and specifications

**37 (1)** If a person carries on or proposes to carry on any work, undertaking or activity that results or is likely to result in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery, or in the deposit of a deleterious substance in water frequented by fish or in any place under any conditions where that deleterious substance or any other deleterious substance that results from the deposit of that deleterious substance may enter any such waters, the person shall, on the request of the Minister — or without request in the manner and circumstances prescribed by regulations made under paragraph (3)(a) — provide the Minister with any plans, specifications, studies, procedures, schedules, analyses, samples, evaluations and other information relating to the work, undertaking or activity, or to the water, place or fish habitat that is or is likely to be affected by the work, undertaking or activity, that will enable the Minister to determine

**(a)** whether the work, undertaking or activity results or is likely to result in any serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery, that constitutes or would constitute an offence under subsection 40(1) and what measures, if any, would prevent that result or mitigate its effects; or

**(b)** whether there is or is likely to be a deposit of a deleterious substance by reason of the work, undertaking or activity that constitutes or would constitute an offence under subsection 40(2) and what measures, if any, would prevent that deposit or mitigate its effects.

### Ecologically significant areas

**(1.1)** If a person proposes to carry on any work, undertaking or activity in any ecologically significant area, the person shall, on the request of the minister — or without request in the manner and circumstances prescribed by regulations made under paragraph (3)(a) — provide the Minister with any prescribed material and other information relating to the work, undertaking or activity, or to the water, place or fish habitat that is or is likely to be affected by the work, undertaking or activity.

immerger ou à rejeter des substances nocives sous le régime des règlements pris en vertu des paragraphes (5) ou (5.2) doivent, à la demande du ministre, prélever des échantillons, faire des analyses, tests, mesures ou contrôles, installer ou utiliser des appareils ou se conformer à des procédures et fournir des renseignements, selon le cas, que celui-ci juge nécessaires pour déterminer si les conditions de l'autorisation ont été respectées.

L.R. (1985), ch. F-14, art. 36; 2012, ch. 19, art. 143.

### Obligation de fournir des plans et devis

**37 (1)** La personne qui exploite ou se propose d'exploiter un ouvrage ou une entreprise de nature à entraîner soit des dommages sérieux à tout poisson visé par une pêche commerciale, récréative ou autochtone, ou à tout poisson dont dépend une telle pêche, soit l'immersion d'une substance nocive dans des eaux où vivent des poissons ou son rejet en quelque autre lieu si la substance nocive en cause, ou toute autre substance nocive provenant de son rejet, risque de pénétrer dans ces eaux ou qui exerce ou se propose d'exercer une activité de même nature, doit à la demande du ministre — ou de sa propre initiative, dans les cas et de la manière prévus par les règlements pris en vertu de l'alinéa (3)a) —, lui fournir les documents — plans, devis, études, pièces, annexes, programmes, analyses, échantillons, évaluations — et autres renseignements pertinents, concernant l'ouvrage, l'entreprise ou l'activité ou les eaux, lieux ou habitats menacés, qui lui permettront de déterminer, selon le cas :

**a)** si l'ouvrage, l'entreprise ou l'activité est de nature à entraîner des dommages sérieux à tout poisson visé par une pêche commerciale, récréative ou autochtone, ou à tout poisson dont dépend une telle pêche en contravention avec le paragraphe 35(1) et quelles sont les mesures éventuelles à prendre pour prévenir ou limiter les dommages;

**b)** si l'ouvrage, l'entreprise ou l'activité est susceptible d'entraîner l'immersion ou le rejet d'une substance en contravention avec l'article 36 et quelles sont les mesures éventuelles à prendre pour prévenir ou limiter les dommages.

### Lieu ayant une importance écologique

**(1.1)** La personne qui se propose d'exploiter un ouvrage ou une entreprise ou d'exercer une activité dans un lieu ayant une importance écologique doit à la demande du ministre — ou de sa propre initiative, dans les cas et de la manière prévus par les règlements pris en vertu de l'alinéa (3)a) —, lui fournir les documents et autres renseignements visés par règlement, concernant l'ouvrage, l'entreprise ou l'activité ou les eaux, lieux ou habitats menacés.

### Powers of Minister

(2) If, after reviewing any material or information provided under subsection (1) or (1.1) and affording the persons who provided it a reasonable opportunity to make representations, the Minister or a person designated by the Minister is of the opinion that an offence under subsection 40(1) or (2) is being or is likely to be committed, or that the work, undertaking or activity results or is likely to result in harm to fish in an ecologically significant area, the Minister or the designated person may, by order, subject to regulations made under paragraph (3)(b),

(a) require any modifications or additions to the work, undertaking or activity or any modifications to any plans, specifications, procedures or schedules relating to it that the Minister or the designated person considers necessary in the circumstances, or

(b) restrict the carrying on of the work, undertaking or activity.

The Minister or the designated person may also direct the closing of the work or undertaking or the ending of the activity for any period that the Minister or the designated person considers necessary in the circumstances.

### Regulations

(3) The Governor in Council may make regulations

(a) prescribing the manner and circumstances in which any information or material shall be provided to the Minister without request under subsection (1) or (1.1);

(b) prescribing the manner and circumstances in which the Minister or a person designated by the Minister may make orders under subsection (2) and the terms of the orders; and

(c) defining *ecologically significant area* for the purposes of subsection (1.1).

### Consultation with provinces

(4) Where the Minister or a person designated by the Minister proposes to make an order pursuant to subsection (2), he shall offer to consult with the governments of any provinces that he considers to be interested in the proposed order and with any departments or agencies of the Government of Canada that he considers appropriate.

### Exception

(5) Nothing in subsection (4) prevents the Minister or a person designated by the Minister from making an interim order pursuant to subsection (2) without the offer of

### Pouvoirs du ministre

(2) Si, après examen des documents et des renseignements reçus au titre des paragraphes (1) ou (1.1) et après avoir accordé aux personnes qui les lui ont fournis la possibilité de lui présenter leurs observations, il est d'avis qu'il y a infraction ou risque d'infraction au paragraphe 35(1) ou à l'article 36 ou que l'ouvrage, l'entreprise ou l'activité est de nature à entraîner des dommages aux poissons dans un lieu ayant une importance écologique, le ministre ou son délégué peut, par arrêté et sous réserve des règlements pris en vertu de l'alinéa (3)b) :

a) soit exiger que soient apportées les modifications et adjonctions aux ouvrages, entreprises ou activités, ou aux documents s'y rapportant, qu'il estime nécessaires dans les circonstances;

b) soit restreindre l'exploitation de l'ouvrage ou de l'entreprise ou l'exercice de l'activité.

Il peut en outre ordonner la fermeture de l'ouvrage ou de l'entreprise ou la cessation de l'activité pour la période qu'il juge nécessaire en l'occurrence.

### Règlements

(3) Le gouverneur en conseil peut, par règlement :

a) prévoir les cas où des documents et des renseignements doivent être fournis au titre des paragraphes (1) et (1.1) au ministre sans qu'il en fasse la demande, ainsi que le mode de communication;

b) prévoir les cas où le ministre ou son délégué peut prendre l'arrêté visé au paragraphe (2), ainsi que les modalités de fond et de forme applicables;

c) définir *lieu ayant une importance écologique* pour l'application du paragraphe (1.1).

### Consultation

(4) S'il se propose de prendre l'arrêté visé au paragraphe (2), le ministre ou son délégué offre aux gouvernements provinciaux qu'il juge intéressés et aux ministères et organismes fédéraux de son choix de les consulter.

### Exception

(5) Le paragraphe (4) n'empêche pas le ministre ou son délégué de prendre, sans offre de consultation, un arrêté

consultation referred to in subsection (4) where he considers that immediate action is necessary.

R.S., 1985, c. F-14, s. 37; 2012, c. 19, s. 144.

### Power to designate

**38 (1)** The Minister may designate persons or classes of persons as inspectors or analysts for the purposes of the administration and enforcement of this Act.

### Certificate to be produced

**(2)** The Minister shall provide every inspector with a certificate of designation and on entering any place or premises referred to in subsection (3) an inspector shall, if so required, show the certificate to the person in charge.

### Authority to enter

**(3)** An inspector may, for a purpose related to verifying compliance with this Act, enter any place or premises, including a vehicle or vessel — other than a private dwelling-place or any part of any place or premises, including a vehicle or vessel, used as a permanent or temporary private dwelling-place — in which the inspector believes on reasonable grounds that

**(a)** there is anything that is detrimental to fish habitat; or

**(b)** there has been carried on, is being carried on or is likely to be carried on any work, undertaking or activity resulting or likely to result in

**(i)** serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery,

**(ii)** the deposit of a substance in water frequented by fish or in any place under any conditions where the substance or any other substance that results from the deposit of the substance may enter any such water.

### Powers on entry

**(3.1)** The inspector may, for a purpose related to verifying compliance with this Act, examine any substance or product in the place or premises, take samples of it and conduct tests and measurements.

**(3.2) to (3.5)** [Repealed, 2012, c. 19, s. 145]

provisoire sous le régime du paragraphe (2) lorsqu'il estime nécessaire d'agir immédiatement.

L.R. (1985), ch. F-14, art. 37; 2012, ch. 19, art. 144.

### Pouvoir de désignation

**38 (1)** Le ministre peut désigner toute personne — à titre individuel ou au titre de son appartenance à une catégorie déterminée — à titre d'inspecteur ou d'analyste pour l'exécution et le contrôle d'application de la présente loi.

### Production du certificat

**(2)** Le ministre remet à l'inspecteur un certificat attestant sa qualité, que celui-ci présente, sur demande, au responsable du lieu qui fait l'objet de sa visite.

### Accès au lieu

**(3)** L'inspecteur peut, à toute fin liée à la vérification du respect de la présente loi, entrer dans tout lieu — y compris un véhicule ou navire —, à l'exclusion d'un local d'habitation privé et d'une partie d'un lieu — y compris un véhicule ou navire — utilisée comme local d'habitation privé permanent ou temporaire —, s'il a des motifs raisonnables de croire :

**a)** qu'il s'y trouve toute chose dommageable pour l'habitat du poisson;

**b)** qu'il y a été, y est ou y sera vraisemblablement exploité un ouvrage ou une entreprise ou exercé une activité qui entraîne ou entraînera vraisemblablement :

**(i)** soit des dommages sérieux à tout poisson visé par une pêche commerciale, récréative ou autochtone, ou à tout poisson dont dépend une telle pêche,

**(ii)** soit l'immersion ou le rejet d'une substance dans des eaux où vivent des poissons, ou en quelque autre lieu où la substance ou toute autre substance provenant de son immersion ou rejet risque de pénétrer dans ces eaux.

### Autres pouvoirs

**(3.1)** Il peut, en outre, à toute fin liée à la vérification du respect de la présente loi, examiner tout produit ou substance trouvé dans le lieu, en prélever des échantillons, faire des tests et prendre des mesures.

**(3.2) à (3.5)** [Abrogés, 2012, ch. 19, art. 145]



#### Duty to notify — serious harm to fish

(4) Every person shall without delay notify an inspector, a fishery officer or an authority prescribed by the regulations of an occurrence that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery, that is not authorized under this Act, or of a serious and imminent danger of such an occurrence, if the person at any material time

- (a) owns or has the charge, management or control of the work, undertaking or activity that resulted in the occurrence or the danger of the occurrence; or
- (b) causes or contributes to the occurrence or the danger of the occurrence.

#### Duty to notify — deleterious substance

(5) If there occurs a deposit of a deleterious substance in water frequented by fish that is not authorized under this Act, or if there is a serious and imminent danger of such an occurrence, and detriment to fish habitat or fish or to the use by humans of fish results or may reasonably be expected to result from the occurrence, then every person shall without delay notify an inspector, a fishery officer or an authority prescribed by the regulations if the person at any material time

- (a) owns or has the charge, management or control of
  - (i) the deleterious substance, or
  - (ii) the work, undertaking or activity that resulted in the deposit or the danger of the deposit; or
- (b) causes or contributes to the occurrence or the danger of the occurrence.

#### Duty to take corrective measures

(6) Any person described in paragraph (4)(a) or (b) or (5)(a) or (b) shall, as soon as feasible, take all reasonable measures consistent with public safety and with the conservation and protection of fish and fish habitat to prevent the occurrence or to counteract, mitigate or remedy any adverse effects that result from the occurrence or might reasonably be expected to result from it.

#### Report

(7) As soon as feasible after the occurrence or after learning of the danger of the occurrence, the person shall provide an inspector, fishery officer or an authority prescribed by the regulations with a written report on the occurrence or danger of the occurrence.

#### Avis — destruction, détérioration ou perturbation

(4) Les personnes mentionnées ci-après avisent sans délai un inspecteur, un agent des pêches ou toute autre autorité désignée par règlement de tout événement — qui s'est produit ou qui est fort probable et imminent — entraînant des dommages sérieux à tout poisson visé par une pêche commerciale, récréative ou autochtone, ou à tout poisson dont dépend une telle pêche qui ne sont pas autorisés sous le régime de la présente loi :

- a) la personne qui est responsable, à titre de propriétaire ou autrement, de l'ouvrage, de l'entreprise ou de l'activité à l'origine des dommages;
- b) celle qui est à l'origine des dommages, ou y contribue.

#### Avis — rejet ou immersion

(5) En cas de rejet ou d'immersion — effectif ou fort probable et imminent — d'une substance nocive dans des eaux où vivent des poissons qui n'est pas autorisé sous le régime de la présente loi et qui nuit — ou risque de nuire — aux poissons ou à leur habitat ou à l'utilisation du poisson par l'homme, les personnes mentionnées ci-après avisent sans délai un inspecteur, un agent des pêches ou toute autre autorité désignée par règlement :

- a) la personne qui est responsable, à titre de propriétaire ou autrement, selon le cas, de la substance nocive ou de l'ouvrage, de l'entreprise ou de l'activité à l'origine du rejet ou de l'immersion;
- b) celle qui est à l'origine du rejet ou de l'immersion ou y contribue.

#### Obligation de prendre des mesures correctives

(6) La personne visée aux alinéas (4)a) ou b) ou (5)a) ou b) est tenue de prendre, le plus tôt possible dans les circonstances, toutes les mesures nécessaires qui soient compatibles avec la sécurité publique et la conservation et la préservation du poisson et de son habitat pour prévenir l'événement mentionné aux paragraphes (4) ou (5) ou pour neutraliser, atténuer ou réparer les dommages qui en résultent ou pourraient normalement en résulter.

#### Rapport

(7) Le plus tôt possible dans les circonstances après l'événement ou après avoir pris connaissance de la probabilité de l'événement, elle est tenue de produire un rapport écrit sur l'événement et de le communiquer à un inspecteur, à un agent des pêches ou à toute autre autorité désignée par règlement.

### Corrective measures

**(7.1)** If an inspector or fishery officer, whether or not they have been notified under subsection (4) or (5) or provided with a report under subsection (7), is satisfied on reasonable grounds that immediate action is necessary in order to take any measures referred to in subsection (6), the inspector or officer may, subject to subsection (7.2), take any of those measures at the expense of any person described in paragraph (4)(a) or (b) or (5)(a) or (b) or direct such a person to take them at that person's expense.

### Inconsistency

**(7.2)** Any direction of an inspector or fishery officer under this section that is inconsistent with any direction under the *Canada Shipping Act, 2001* is void to the extent of the inconsistency.

### Access to property

**(8)** For the purposes of subsections (4) to (7.1), any inspector or other person may enter and have access through any place or premises, including a vehicle or vessel — other than a private dwelling-place or any part of any place or premises, including a vehicle or vessel, used as a permanent or temporary private dwelling-place — and may take all reasonable measures in order to ensure that those subsections are complied with. However, nothing in this subsection relieves any person from liability at law for illegal or negligent acts or omissions or for loss or damage caused to others by the entry, access or measure.

### Regulations

**(9)** The Governor in Council may make regulations prescribing

- (a)** the authority for the purposes of subsection (4) or (5), the manner in which the notification under those subsections is to be made, the information to be contained in the notification and the circumstances in which no notification need be made;
- (b)** the authority for the purposes of subsection (7), the manner in which the report under that subsection is to be made, the information to be contained in the report and the circumstances in which no report need be made;
- (c)** the manner in which inspectors and fishery officers may take any measures or give any directions under subsection (7.1) and the conditions to which those measures are subject;
- (d)** the manner and circumstances in which any measures taken or directions given under subsection (7.1) may be reviewed, rescinded or varied; and

### Mesures correctives

**(7.1)** Même en l'absence de l'avis exigé par les paragraphes (4) ou (5) ou du rapport mentionné au paragraphe (7), l'inspecteur ou l'agent des pêches peut, sous réserve du paragraphe (7.2), prendre ou faire prendre, aux frais de la personne visée aux alinéas (4)a) ou b) ou (5)a) ou b), les mesures mentionnées au paragraphe (6), ou ordonner à cette personne de le faire à ses frais lorsqu'il est convaincu, pour des motifs raisonnables, de l'urgence de ces mesures.

### Incompatibilité

**(7.2)** En cas d'incompatibilité, les ordres donnés sous le régime de la *Loi de 2001 sur la marine marchande du Canada* l'emportent sur ceux donnés par l'inspecteur ou l'agent des pêches aux termes du présent article.

### Accès

**(8)** L'inspecteur ou toute autre personne peut pénétrer en tout lieu, y compris un véhicule ou navire — à l'exclusion d'un local d'habitation privé et d'une partie d'un lieu — y compris un véhicule ou navire — utilisée comme local d'habitation privé permanent ou temporaire — et prendre toutes les mesures utiles en vue de l'application des paragraphes (4) à (7.1). Le présent paragraphe ne limite en rien toutefois leur responsabilité juridique pour des actes ou omissions négligents ou illégaux, ou pour les pertes ou dommages causés à des tiers par ces visites ou mesures.

### Règlements

**(9)** Le gouverneur en conseil peut, par règlement :

- a)** désigner l'autorité mentionnée aux paragraphes (4) et (5) et préciser les modalités de l'avis à envoyer au titre de ces paragraphes ainsi que les cas où il n'est pas nécessaire;
- b)** désigner l'autorité mentionnée au paragraphe (7) et préciser les modalités du rapport à produire au titre de ce paragraphe ainsi que les cas où il n'est pas nécessaire;
- c)** fixer les modalités d'exercice des pouvoirs conférés aux inspecteurs ou agents des pêches par le paragraphe (7.1), ainsi que les conditions attachées aux mesures prises ou ordonnées par eux;
- d)** établir le mode de révision, de modification ou d'annulation des mesures prises ou ordonnées au titre du paragraphe (7.1), et déterminer les circonstances qui peuvent y donner lieu;

(e) any other matters necessary for or incidental to carrying out the purposes and provisions of this section.

#### Assistance to inspectors

(10) The owner or person in charge of any place or premises entered by an inspector under subsection (3) and every person found there shall give the inspector all reasonable assistance to enable the inspector to carry out their duties and functions under this section and shall provide the inspector with any information with respect to verifying compliance with this Act that the inspector requires.

#### Certificate of analyst as proof

(11) Subject to subsections (12) and (13), a certificate purporting to be signed by an analyst stating that he has analyzed or tested a substance or product and stating the result of his analysis or test is admissible in evidence in any prosecution for an offence under subsection 40(2) or (3) without proof of the signature or official character of the person appearing to have signed the certificate and, in the absence of any evidence to the contrary, is proof of the statements contained in the certificate.

#### Attendance of analyst

(12) The party against whom there is produced any certificate pursuant to subsection (11) may, with leave of the court, require the attendance of the analyst for the purposes of cross-examination.

#### Notice

(13) No certificate shall be admitted in evidence pursuant to subsection (11) unless the party intending to produce it has given to the party against whom it is intended to be produced reasonable notice of that intention together with a copy of the certificate in question.

R.S., 1985, c. F-14, s. 38; R.S., 1985, c. 31 (1st Suppl.), s. 34; 2001, c. 26, s. 300; 2012, c. 19, s. 145.

#### Search

**39 (1)** A fishery officer or inspector who has a warrant issued under subsection (2) in which the officer or inspector is named may enter any place or premises, including a vehicle or vessel — other than a private dwelling-place or any part of any place or premises, including a vehicle or vessel, used as a permanent or temporary private dwelling-place — in which the officer or inspector has reasonable grounds to believe that an offence under subsection 40(1), (2) or (3) is being or has been committed and search the place, premises, vehicle or vessel for evidence of the offence.

e) prendre toute autre mesure d'application du présent article.

#### Assistance à l'inspecteur

(10) Le propriétaire ou le responsable des lieux où l'inspecteur est autorisé à entrer en vertu du paragraphe (3), ainsi que les personnes qui s'y trouvent, sont tenus de lui prêter toute l'assistance possible dans l'exercice de ses fonctions et de lui donner les renseignements qu'il peut exiger pour la vérification du respect de la présente loi.

#### Certificat de l'analyste

(11) Sous réserve des paragraphes (12) et (13), le certificat censé signé par l'analyste, où il est déclaré que celui-ci a étudié telle substance ou tel produit et où sont donnés ses résultats, est admissible en preuve dans les poursuites engagées pour une infraction prévue au paragraphe 40(2) ou (3), sans qu'il soit nécessaire de prouver l'authenticité de la signature qui y est apposée ou la qualité officielle du signataire; sauf preuve contraire, le certificat fait foi de son contenu.

#### Présence de l'analyste

(12) La partie contre laquelle est produit le certificat peut, avec l'autorisation du tribunal, exiger la présence de l'analyste pour contre-interrogatoire.

#### Préavis

(13) Le certificat n'est admissible en preuve que si la partie qui entend le produire donne de son intention à la partie qu'elle vise un préavis suffisant, accompagné d'une copie du certificat.

L.R. (1985), ch. F-14, art. 38; L.R. (1985), ch. 31 (1<sup>er</sup> suppl.), art. 34; 2001, ch. 26, art. 300; 2012, ch. 19, art. 145.

#### Perquisition

**39 (1)** L'inspecteur ou l'agent des pêches muni du mandat visé au paragraphe (2) peut, s'il a des motifs raisonnables de croire qu'une infraction prévue aux paragraphes 40(1), (2) ou (3) a été ou est commise, entrer et perquisitionner dans tout lieu — y compris un véhicule ou navire —, à l'exclusion d'un local d'habitation privé et d'une partie d'un lieu — y compris un véhicule ou navire — utilisée comme local d'habitation privé permanent ou temporaire —, en vue d'obtenir des éléments de preuve.

### Authority to issue warrant

**(2)** On *ex parte* application, a justice of the peace may issue a warrant authorizing any fishery officer or inspector named in the warrant to enter and search any place or premises referred to in subsection (1), subject to any conditions that are specified in the warrant, if the justice is satisfied by information on oath that there are reasonable grounds to believe that there is in the place or premises

**(a)** anything on or in respect of which an offence under subsection 40(1), (2) or (3) is being or has been committed; or

**(b)** anything that there are reasonable grounds to believe will afford evidence with respect to the commission of an offence under subsection 40(1), (2) or (3).

### Use of force

**(3)** In executing a warrant issued under subsection (2), an inspector named in the warrant may use force only if they are accompanied by a peace officer and the use of force has been specifically authorized in the warrant.

### When warrant not necessary

**(4)** A fishery officer or inspector may exercise the powers of entry and search referred to in subsection (1) without a warrant issued under subsection (2) if the conditions for obtaining the warrant exist but by reason of exigent circumstances it would not be practical to obtain the warrant.

### Exigent circumstances

**(5)** For the purposes of subsection (4), exigent circumstances include circumstances in which the delay necessary to obtain a warrant would result in danger to human life or safety or the loss or destruction of evidence.

R.S., 1985, c. F-14, s. 39; 1991, c. 1, s. 9; 2012, c. 19, s. 146.

### Offence and punishment

**40 (1)** Every person who contravenes subsection 35(1) is guilty of an offence and liable

**(a)** on conviction on indictment,

**(i)** in the case of an individual,

**(A)** for a first offence, to a fine of not less than \$15,000 and not more than \$1,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$30,000 and not more than \$2,000,000, or to imprisonment for a term not exceeding three years, or to both,

### Délivrance du mandat

**(2)** Sur demande *ex parte*, le juge de paix peut décerner un mandat autorisant, sous réserve des conditions éventuellement fixées, tout inspecteur ou agent des pêches qui y est nommé à entrer et perquisitionner dans tout lieu visé au paragraphe (1) s'il est convaincu, sur la foi d'une dénonciation sous serment, qu'il y a des motifs raisonnables de croire à la présence :

**a)** soit d'un objet qui sert ou donne lieu ou a servi ou donné lieu à une infraction prévue aux paragraphes 40(1), (2) ou (3);

**b)** soit d'un objet dont il y a des motifs raisonnables de croire qu'il servira à prouver la perpétration d'une telle infraction.

### Usage de la force

**(3)** L'inspecteur nommé dans le mandat ne peut recourir à la force dans l'exécution du mandat que si celui-ci en autorise expressément l'usage et que si lui-même est accompagné d'un agent de la paix.

### Perquisition sans mandat

**(4)** L'inspecteur ou l'agent des pêches peut exercer sans mandat les pouvoirs visés au paragraphe (1) lorsque l'urgence de la situation rend difficilement réalisable l'obtention du mandat, sous réserve que les conditions de délivrance de celui-ci soient réunies.

### Situation d'urgence

**(5)** Pour l'application du paragraphe (4), il y a notamment urgence dans les cas où le délai d'obtention du mandat risquerait soit de mettre en danger des personnes, soit d'entraîner la perte ou la destruction d'éléments de preuve.

L.R. (1985), ch. F-14, art. 39; 1991, ch. 1, art. 9; 2012, ch. 19, art. 146.

### Infractions et peines

**40 (1)** Quiconque contrevient au paragraphe 35(1) commet une infraction et encourt, sur déclaration de culpabilité :

**a)** par mise en accusation :

**(i)** s'il s'agit d'une personne physique :

**(A)** pour une première infraction, une amende d'au moins 15 000 \$ et d'au plus 1 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 30 000 \$ et d'au plus 2 000 000 \$ et un emprisonnement maximal de trois ans, ou l'une de ces peines,

**(ii)** in the case of a person, other than an individual or a corporation referred to in subparagraph (iii),

**(A)** for a first offence, to a fine of not less than \$500,000 and not more than \$6,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$1,000,000 and not more than \$12,000,000, and

**(iii)** in the case of a corporation that the court has determined to be a small revenue corporation,

**(A)** for a first offence, to a fine of not less than \$75,000 and not more than \$4,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$150,000 and not more than \$8,000,000; or

**(b)** on summary conviction,

**(i)** in the case of an individual,

**(A)** for a first offence, to a fine of not less than \$5,000 and not more than \$300,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$10,000 and not more than \$600,000, or to imprisonment for a term not exceeding six months, or to both,

**(ii)** in the case of a person, other than an individual or a corporation referred to in subparagraph (iii),

**(A)** for a first offence, to a fine of not less than \$100,000 and not more than \$4,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$200,000 and not more than \$8,000,000, and

**(iii)** in the case of a corporation that the court has determined to be a small revenue corporation,

**(A)** for a first offence, to a fine of not less than \$25,000 and not more than \$2,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$50,000 and not more than \$4,000,000.

#### Offence and punishment

**(2)** Every person who contravenes subsection 36(1) or (3) is guilty of an offence and liable

**(a)** on conviction on indictment,

**(ii)** s'il s'agit d'une personne, à l'exception d'une personne physique et de la personne morale visée au sous-alinéa (iii) :

**(A)** pour une première infraction, une amende d'au moins 500 000 \$ et d'au plus 6 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 1 000 000 \$ et d'au plus 12 000 000 \$,

**(iii)** s'il s'agit d'une personne morale que le tribunal déclare personne morale à revenus modestes :

**(A)** pour une première infraction, une amende d'au moins 75 000 \$ et d'au plus 4 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 150 000 \$ et d'au plus 8 000 000 \$;

**b)** par procédure sommaire :

**(i)** s'il s'agit d'une personne physique :

**(A)** pour une première infraction, une amende d'au moins 5 000 \$ et d'au plus 300 000 \$,

**(B)** en cas de récidive, une amende d'au moins 10 000 \$ et d'au plus 600 000 \$ et un emprisonnement maximal de six mois, ou l'une de ces peines,

**(ii)** s'il s'agit d'une personne, à l'exception d'une personne physique et de la personne morale visée au sous-alinéa (iii) :

**(A)** pour une première infraction, une amende d'au moins 100 000 \$ et d'au plus 4 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 200 000 \$ et d'au plus 8 000 000 \$,

**(iii)** s'il s'agit d'une personne morale que le tribunal déclare personne morale à revenus modestes :

**(A)** pour une première infraction, une amende d'au moins 25 000 \$ et d'au plus 2 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 50 000 \$ et d'au plus 4 000 000 \$.

#### Idem

**(2)** Quiconque contrevient aux paragraphes 36(1) ou (3) commet une infraction et encourt, sur déclaration de culpabilité :

**(i)** in the case of an individual,

**(A)** for a first offence, to a fine of not less than \$15,000 and not more than \$1,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$30,000 and not more than \$2,000,000, or to imprisonment for a term not exceeding three years, or to both,

**(ii)** in the case of a person, other than an individual or a corporation referred to in subparagraph (iii),

**(A)** for a first offence, to a fine of not less than \$500,000 and not more than \$6,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$1,000,000 and not more than \$12,000,000, and

**(iii)** in the case of a corporation that the court has determined to be a small revenue corporation,

**(A)** for a first offence, to a fine of not less than \$75,000 and not more than \$4,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$150,000 and not more than \$8,000,000; or

**(b)** on summary conviction,

**(i)** in the case of an individual,

**(A)** for a first offence, to a fine of not less than \$5,000 and not more than \$300,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$10,000 and not more than \$600,000, or to imprisonment for a term not exceeding six months, or to both,

**(ii)** in the case of a person, other than an individual or a corporation referred to in subparagraph (iii),

**(A)** for a first offence, to a fine of not less than \$100,000 and not more than \$4,000,000, and

**(B)** for a second or subsequent offence, to a fine of not less than \$200,000 and not more than \$8,000,000, and

**(iii)** in the case of a corporation that the court has determined to be a small revenue corporation,

**(A)** for a first offence, to a fine of not less than \$25,000 and not more than \$2,000,000, and

**a)** par mise en accusation :

**(i)** s'il s'agit d'une personne physique :

**(A)** pour une première infraction, une amende d'au moins 15 000 \$ et d'au plus 1 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 30 000 \$ et d'au plus 2 000 000 \$ et un emprisonnement maximal de trois ans, ou l'une de ces peines,

**(ii)** s'il s'agit d'une personne, à l'exception d'une personne physique et de la personne morale visée au sous-alinéa (iii) :

**(A)** pour une première infraction, une amende d'au moins 500 000 \$ et d'au plus 6 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 1 000 000 \$ et d'au plus 12 000 000 \$,

**(iii)** s'il s'agit d'une personne morale que le tribunal déclare personne morale à revenus modestes :

**(A)** pour une première infraction, une amende d'au moins 75 000 \$ et d'au plus 4 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 150 000 \$ et d'au plus 8 000 000 \$;

**b)** par procédure sommaire :

**(i)** s'il s'agit d'une personne physique :

**(A)** pour une première infraction, une amende d'au moins 5 000 \$ et d'au plus 300 000 \$,

**(B)** en cas de récidive, une amende d'au moins 10 000 \$ et d'au plus 600 000 \$ et un emprisonnement maximal de six mois, ou l'une de ces peines,

**(ii)** s'il s'agit d'une personne, à l'exception d'une personne physique et de la personne morale visée au sous-alinéa (iii) :

**(A)** pour une première infraction, une amende d'au moins 100 000 \$ et d'au plus 4 000 000 \$,

**(B)** en cas de récidive, une amende d'au moins 200 000 \$ et d'au plus 8 000 000 \$,

**(iii)** s'il s'agit d'une personne morale que le tribunal déclare personne morale à revenus modestes :

**(A)** pour une première infraction, une amende d'au moins 25 000 \$ et d'au plus 2 000 000 \$,

**(B)** for a second or subsequent offence, to a fine of not less than \$50,000 and not more than \$4,000,000.

### Small revenue corporation status

**(2.1)** For the purpose of subsections (1) and (2), a court may determine a corporation to be a small revenue corporation if the court is satisfied that the corporation's gross revenues for the 12 months immediately before the day on which the subject matter of the proceedings arose — or, if it arose on more than one day, for the 12 months immediately before the first day on which the subject matter of the proceedings arose — were not more than \$5,000,000.

### Relief from minimum fine

**(2.2)** The court may impose a fine that is less than the minimum amount provided for in subsection (1) or (2) if it is satisfied, on the basis of evidence submitted to the court, that the minimum fine would cause undue financial hardship. The court shall provide reasons if it imposes a fine that is less than the minimum amount provided for in either of those subsections.

### Other offences

**(3)** Every person who

**(a)** in carrying on a work, undertaking or activity, fails to comply with a prescribed condition of an authorization under paragraph 35(2)(a) or (c), with a condition established by the Minister under paragraph 35(2)(b), or with a condition set out in the regulations or established under any other authorization issued under this Act,

**(a.1)** fails to provide any material or information as requested by the Minister under subsection 37(1) or (1.1) within a reasonable time after the request is made,

**(b)** fails to provide or submit any material, information or report that is to be provided or submitted under regulations made pursuant to subsection 37(3),

**(c)** fails to provide notification that he or she is required to provide under subsection 38(4) or (5),

**(d)** carries on any work, undertaking or activity described in subsection 37(1) or (1.1)

**(i)** otherwise than in accordance with any material or information relating to the work, undertaking or activity that he or she provides to the Minister under subsection 37(1) or (1.1),

**(B)** en cas de récidive, une amende d'au moins 50 000 \$ et d'au plus 4 000 000 \$.

### Déclaration : personne morale à revenus modestes

**(2.1)** Pour l'application des paragraphes (1) et (2), le tribunal peut déclarer qu'une personne morale est une personne morale à revenus modestes s'il est convaincu que ses revenus bruts, dans la période d'un an précédant immédiatement la date de l'infraction — ou, si celle-ci a été commise sur plus d'un jour, dans la période d'un an précédant immédiatement le premier jour où elle a été commise —, n'excédaient pas 5 000 000 \$.

### Allègement de l'amende minimale

**(2.2)** Le tribunal peut imposer une amende inférieure à l'amende minimale prévue aux paragraphes (1) ou (2) s'il est convaincu, sur le fondement de la preuve présentée, que l'amende minimale constituerait un fardeau financier excessif pour le contrevenant; le cas échéant, il motive sa décision.

### Idem

**(3)** Commet une infraction et encourt, sur déclaration de culpabilité par procédure sommaire, une amende maximale de deux cent mille dollars lors d'une première infraction ou, en cas de récidive, une amende maximale de deux cent mille dollars et un emprisonnement maximal de six mois, ou l'une de ces peines, quiconque, selon le cas :

**a)** exploite un ouvrage ou une entreprise ou exerce une activité en contravention avec soit les conditions réglementaires dont est assortie l'autorisation visée aux alinéas 35(2)a) ou c), soit les conditions établies par le ministre au titre de l'alinéa 35(2)b), soit les conditions prévues par règlement ou toute autorisation délivrée sous le régime de la présente loi;

**a.1)** omet de fournir les documents et renseignements demandés par le ministre au titre des paragraphes 37(1) ou (1.1) dans un délai convenable suivant la demande;

**b)** omet de présenter les documents, renseignements ou rapports exigés aux termes des règlements d'application du paragraphe 37(3);

**c)** omet d'envoyer l'avis exigé aux termes des paragraphes 38(4) ou (5);

**d)** exploite un ouvrage ou une entreprise ou exerce une activité visés aux paragraphes 37(1) ou (1.1) sans

(ii) otherwise than in accordance with any such material or information as required to be modified by any order of the Minister under paragraph 37(2)(a), or

(iii) contrary to any order made by the Minister under subsection 37(2),

(e) fails to take any reasonable measures that he or she is required to take under subsection 38(6) or fails to take those measures in the required manner,

(f) fails to provide a report that he or she is required to provide under subsection 38(7),

(g) fails to comply with the whole or any part of a direction of an inspector or a fishery officer under subsection 38(7.1), or

(h) fails to comply with a request of the Minister made under section 20,

is guilty of an offence punishable on summary conviction and liable, for a first offence, to a fine not exceeding two hundred thousand dollars and, for any subsequent offence, to a fine not exceeding two hundred thousand dollars or to imprisonment for a term not exceeding six months, or to both.

(4) [Repealed, 1991, c. 1, s. 10]

#### Matters of proof

(5) For the purpose of any proceedings for an offence under subsection (2) or (3),

(a) a *deposit* as defined in subsection 34(1) takes place whether or not any act or omission resulting in the deposit is intentional; and

(b) no water is *water frequented by fish*, as defined in subsection 34(1), where proof is made that at all times material to the proceedings the water is not, has not been and is not likely to be frequented in fact by fish.

#### Application of fines

(6) All fines received by the Receiver General in respect of the commission of an offence under this section are to be credited to the Environmental Damages Fund, an account in the accounts of Canada, and used for purposes related to the conservation and protection of fish or fish habitat or the restoration of fish habitat, or for administering that Fund.

se conformer aux documents et renseignements fournis au ministre ou modifiés conformément à un arrêté pris par celui-ci en vertu de l'alinéa 37(2)a), ou encore sans respecter les termes d'un tel arrêté;

e) omet de prendre — ou de prendre de la manière prescrite — les mesures auxquelles l'oblige le paragraphe 38(6);

f) omet de produire le rapport exigé aux termes du paragraphe 38(7);

g) contrevient, en tout ou en partie, à tout ordre donné par l'inspecteur ou l'agent des pêches au titre du paragraphe 38(7.1);

h) contrevient à toute demande formulée par le ministre au titre de l'article 20.

(4) [Abrogé, 1991, ch. 1, art. 10]

#### Présomptions

(5) Dans les procédures engagées pour une des infractions prévues au paragraphe (2) ou (3) :

a) la définition qu'en donne le paragraphe 34(1) s'applique à l'immersion ou au rejet, même quand ils résultent d'une action ou abstention non intentionnelle;

b) sont exclues des eaux où vivent des poissons les eaux où il est établi qu'en fait, aux époques en cause dans les procédures, il n'y avait pas, n'y a pas ou n'y aura vraisemblablement pas de poissons.

#### Affectation

(6) Les sommes reçues par le receveur général en paiement d'amendes infligées à l'égard de toute infraction visée au présent article sont portées au crédit du Fonds pour dommages à l'environnement — ouvert parmi les comptes du Canada — et sont utilisées soit à des fins liées à la conservation et la protection du poisson ou de son habitat ou à la restauration de l'habitat du poisson soit pour l'administration du fonds.



### Recommendations of court

**(7)** The court imposing the fine may recommend to the Minister that all or a portion of the fine credited to the Environmental Damages Fund be paid to a person or an organization specified by the court for a purpose referred to in subsection (6).

R.S., 1985, c. F-14, s. 40; 1991, c. 1, s. 10; 2012, c. 19, s. 147, c. 31, s. 174.

**41 (1) to (3)** [Repealed, 1991, c. 1, s. 11]

### Action to enjoin not prejudiced by prosecution

**(4)** Notwithstanding that a prosecution has been instituted in respect of an offence under section 40, the Attorney General of Canada may commence and maintain proceedings to enjoin anything punishable as an offence under that section.

R.S., 1985, c. F-14, s. 41; 1991, c. 1, s. 11.

### Civil liability to Her Majesty

**42 (1)** Where there occurs a deposit of a deleterious substance in water frequented by fish that is not authorized under section 36 or a serious and imminent danger thereof by reason of any condition, the persons who at any material time

**(a)** own the deleterious substance or have the charge, management or control thereof, or

**(b)** are persons other than those described in paragraph (a) who cause or contribute to the causation of the deposit or danger thereof,

are, subject to subsection (4) in the case of the persons referred to in paragraph (a) and to the extent determined according to their respective degrees of fault or negligence in the case of the persons referred to in paragraph (b), jointly and severally liable for all costs and expenses incurred by Her Majesty in right of Canada or a province, to the extent that those costs and expenses can be established to have been reasonably incurred in the circumstances, of and incidental to the taking of any measures to prevent any such deposit or condition or to counteract, mitigate or remedy any adverse effects that result or may reasonably be expected to result therefrom.

### Recovery

**(2)** All the costs and expenses referred to in subsection (1) are recoverable by Her Majesty in right of Canada or a province with costs in proceedings brought or taken therefor in the name of Her Majesty in any such right in any court of competent jurisdiction.

### Liability to fishermen

**(3)** Where, as a result of a deposit that is not authorized under section 36, a deleterious substance enters water

### Recommandation du tribunal

**(7)** Le tribunal qui fixe le montant de l'amende à porter au crédit du Fonds pour dommages à l'environnement peut recommander au ministre qu'une partie ou la totalité de celle-ci soit versée à la personne ou à l'organisation qu'il précise à l'une des fins prévues au paragraphe (6).

L.R. (1985), ch. F-14, art. 40; 1991, ch. 1, art. 10; 2012, ch. 19, art. 147, ch. 31, art. 174.

**41 (1) à (3)** [Abrogés, 1991, ch. 1, art. 11]

### Action par le procureur général

**(4)** Indépendamment des poursuites exercées pour l'une des infractions prévues à l'article 40, le procureur général du Canada peut engager des procédures en vue d'ordonner que cesse tout acte qui constitue une infraction prévue à cet article.

L.R. (1985), ch. F-14, art. 41; 1991, ch. 1, art. 11.

### Recours civils

**42 (1)** En cas de rejet ou d'immersion défendu — effectif, ou fort probable et imminent — d'une substance nocive dans des eaux où vivent des poissons, les personnes visées aux alinéas a) et b) sont, sous réserve du paragraphe (4) dans le cas de celles qui sont mentionnées à l'alinéa a), et dans la mesure de leur faute ou négligence respective dans le cas de celles qui sont mentionnées à l'alinéa b), solidairement responsables des frais exposés par Sa Majesté du chef du Canada ou d'une province pour autant qu'il puisse être établi qu'ils découlent normalement des mesures prises en vue de prévenir le rejet ou l'immersion, ou le risque de rejet ou d'immersion, ou d'y remédier, ou encore de réduire ou d'atténuer tout dommage causé ou qui risque normalement d'en résulter. Les personnes visées se répartissent en deux catégories :

**a)** celles qui étaient propriétaires de la substance nocive ou avaient toute autorité sur celle-ci;

**b)** celles qui, ne relevant pas de la catégorie mentionnée à l'alinéa a), sont à l'origine du rejet ou de l'immersion, ou y ont contribué.

### Recouvrement

**(2)** Les frais visés au paragraphe (1) sont recouvrables, avec dépens, en son nom par Sa Majesté du chef du Canada ou d'une province devant tout tribunal compétent.

### Responsabilité solidaire

**(3)** En cas de pollution des eaux où vivent des poissons par une substance nocive lors d'un rejet ou d'une

frequented by fish, the persons described in paragraphs (1)(a) and (b) are, subject to subsection (4) in the case of the persons described in paragraph (1)(a) and to the extent determined according to their respective degrees of fault or negligence in the case of the persons described in paragraph (1)(b), jointly and severally liable for all loss of income incurred by any licensed commercial fisherman, to the extent that the loss can be established to have been incurred as a result of the deposit or of a prohibition to fish resulting therefrom, and all such loss is recoverable with costs in proceedings brought or taken therefor in any court of competent jurisdiction.

#### Defences to liability

**(4)** The liability of any person described in paragraph (1)(a) is absolute and does not depend on proof of fault or negligence but no such person is liable for any costs and expenses pursuant to subsection (1) or loss of income pursuant to subsection (3) if he establishes that the occurrence giving rise to the liability was wholly caused by

**(a)** an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character; or

**(b)** an act or omission with intent to cause damage by a person other than a person for whose wrongful act or omission he is by law responsible.

#### Exception

**(5)** Nothing in this section limits or restricts any right of recourse that any person who is liable pursuant to this section may have against any other person.

#### Limitation

**(6)** No proceedings may be commenced under subsections (1) to (3) at any time later than two years after the occurrence to which the proceedings relate could reasonably be expected to have become known to Her Majesty in right of Canada or a province or to any licensed commercial fisherman, as the case may be.

#### Exception

**(7)** Subsections (1) to (3) do not apply in respect of any deposit of a deleterious substance that, within the meaning of Part 8 or 9 of the *Canada Shipping Act, 2001*, constitutes a discharge of a pollutant caused by or otherwise attributable to a vessel.

immersion défendu, les personnes mentionnées aux alinéas (1)a) et b) sont, sous réserve du paragraphe (4) dans le cas de celles qui sont mentionnées à l'alinéa (1)a), et dans la mesure de leur faute ou négligence respective dans le cas de celles qui sont mentionnées à l'alinéa (1)b), solidairement responsables de toutes les pertes de revenu subies par les titulaires d'une licence de pêche commerciale dans la mesure où il peut être établi que ces pertes sont occasionnées par le rejet ou l'immersion ou par l'interdiction de pêcher qui en résulte, leur recouvrement pouvant être poursuivi avec dépens devant tout tribunal compétent.

#### Décharge de responsabilité

**(4)** La responsabilité des personnes mentionnées à l'alinéa (1)a) est absolue, même si leur faute ou négligence ne peut être prouvée, à l'égard des frais et des pertes de revenu respectivement visés aux paragraphes (1) et (3), à moins qu'elles n'établissent que le fait est entièrement attribuable :

**a)** soit à des actes de guerre, des hostilités, une guerre civile, une insurrection ou des phénomènes naturels exceptionnels, inévitables et irrésistibles;

**b)** soit à l'action ou abstention intentionnelle en vue de causer des dommages, de la part d'une personne dont elles ne sont pas légalement responsables.

#### Exception

**(5)** Le présent article ne limite pas les recours éventuels contre des tiers ouverts aux personnes qui y sont mentionnées.

#### Prescription

**(6)** Les poursuites visées aux paragraphes (1) à (3) se prescrivent par deux ans à compter du moment où l'on peut raisonnablement présumer que Sa Majesté du chef du Canada ou d'une province, ou le titulaire d'une licence de pêche commerciale, selon le cas, a eu connaissance du fait générateur.

#### Exception

**(7)** Les paragraphes (1) à (3) ne s'appliquent pas à l'immersion ou au rejet d'une substance nocive qui constitue, au sens des parties 8 ou 9 de la *Loi de 2001 sur la marine marchande du Canada*, un rejet de polluant imputable d'une manière ou d'une autre à un bâtiment.

### Other civil remedies not affected

**(8)** No civil remedy for any act or omission is suspended or affected by reason only that the act or omission is authorized under this Act, is an offence under this Act or gives rise to civil liability under this Act.

R.S., 1985, c. F-14, s. 42; 2001, c. 26, s. 301.

### Annual report

**42.1 (1)** The Minister shall, as soon as feasible after the end of each fiscal year, prepare and cause to be laid before each house of Parliament a report on the administration and enforcement of the provisions of this Act relating to fisheries protection and pollution prevention for that year.

### Statistical summary

**(2)** The annual report shall include a statistical summary of convictions under section 40 for that year.

1991, c. 1, s. 11.1; 2012, c. 19, s. 148.

## Regulations

### Regulations

**43 (1)** The Governor in Council may make regulations for carrying out the purposes and provisions of this Act and in particular, but without restricting the generality of the foregoing, may make regulations

- (a)** for the proper management and control of the sea-coast and inland fisheries;
- (b)** respecting the conservation and protection of fish;
- (c)** respecting the catching, loading, landing, handling, transporting, possession and disposal of fish;
- (d)** respecting the operation of fishing vessels;
- (e)** respecting the use of fishing gear and equipment;
- (e.1)** respecting the marking, identification and tracking of fishing vessels;
- (e.2)** respecting the designation of persons as observers, their duties and their carriage on board fishing vessels;
- (f)** respecting the issue, suspension and cancellation of licences and leases;
- (g)** respecting the terms and conditions under which a licence and lease may be issued;

### Autres recours

**(8)** Le fait qu'un acte ou une omission est autorisé aux termes de la présente loi, ou au contraire constitue une infraction à celle-ci, ou encore crée une responsabilité civile sous le régime de la présente loi, n'exclut pas le recours au civil à son égard.

L.R. (1985), ch. F-14, art. 42; 2001, ch. 26, art. 301.

### Rapport annuel

**42.1 (1)** Au début de chaque exercice, le ministre établit dans les meilleurs délais un rapport sur l'exécution et le contrôle d'application des dispositions de la présente loi qui portent sur la protection des pêches et la prévention de la pollution au cours de l'exercice précédent et le fait déposer devant chaque chambre du Parlement.

### Résumé statistique

**(2)** Le rapport comporte un résumé statistique des condamnations prononcées sous le régime de l'article 40 au cours de l'exercice visé.

1991, ch. 1, art. 11.1; 2012, ch. 19, art. 148.

## Règlements

### Règlements

**43 (1)** Le gouverneur en conseil peut prendre des règlements d'application de la présente loi, notamment :

- a)** concernant la gestion et la surveillance judiciaires des pêches en eaux côtières et internes;
- b)** concernant la conservation et la protection du poisson;
- c)** concernant la prise, le chargement, le débarquement, la manutention, le transport, la possession et l'écoulement du poisson;
- d)** concernant l'exploitation des bateaux de pêche;
- e)** concernant l'utilisation des engins et équipements de pêche;
- e.1)** concernant le marquage, l'identification et l'observation des bateaux de pêche;
- e.2)** concernant la désignation des observateurs, leurs fonctions et leur présence à bord des bateaux de pêche;
- f)** concernant la délivrance, la suspension et la révocation des licences, permis et baux;
- g)** concernant les conditions attachées aux licences, permis et baux;

**(g.1)** respecting any records, books of account or other documents to be kept under this Act and the manner and form in which and the period for which they shall be kept;

**(g.2)** respecting the manner in which records, books of account or other documents shall be produced and information shall be provided under this Act;

**(h)** respecting the obstruction and pollution of any waters frequented by fish;

**(i)** respecting the conservation and protection of spawning grounds;

**(i.01)** excluding fisheries from the definitions *Aboriginal, commercial* and *recreational*;

**(i.1)** for the purposes of paragraph 35(2)(a), prescribing anything that is authorized to be prescribed;

**(i.2)** respecting applications for the authorizations referred to in paragraph 35(2)(b) or (c);

**(i.3)** prescribing the conditions under which and requirements subject to which persons or entities referred to in paragraph 35(2)(c) may grant the authorization;

**(i.4)** respecting time limits for issuing authorizations referred to in paragraph 35(2)(b) or (c), or for refusing to do so;

**(j)** respecting the export of fish or any part thereof from Canada;

**(k)** respecting the taking or carrying of fish or any part thereof from one province to any other province;

**(l)** prescribing the powers and duties of persons engaged or employed in the administration or enforcement of this Act and providing for the carrying out of those powers and duties;

**(m)** where a close time, fishing quota or limit on the size or weight of fish has been fixed in respect of an area under the regulations, authorizing persons referred to in paragraph (l) to vary the close time, fishing quota or limit in respect of that area or any portion of that area;

**(n)** establishing a list of aquatic invasive species;

**(o)** respecting the control of aquatic invasive species, including regulations

**g.1)** concernant les registres, documents comptables et autres documents dont la tenue est prévue par la présente loi ainsi que la façon de les tenir, leur forme et la période pendant laquelle ils doivent être conservés;

**g.2)** concernant la façon dont les registres, documents comptables et autres documents doivent être présentés et les renseignements fournis sous le régime de la présente loi;

**h)** concernant l'obstruction et la pollution des eaux où vivent des poissons;

**i)** concernant la conservation et la protection des frayères;

**i.01)** excluant toute pêche de l'application des définitions de *autochtone, commerciale* et *récréative*;

**i.1)** pour l'application de l'alinéa 35(2)a), prévoyant toute mesure d'ordre réglementaire prévue par cet alinéa;

**i.2)** concernant les demandes visant l'obtention des autorisations visées aux alinéas 35(2)b) ou c);

**i.3)** prévoyant les conditions et exigences attachées à l'exercice, par les personnes ou entités visées à l'alinéa 35(2)c), du pouvoir de délivrer une autorisation;

**i.4)** concernant les délais relatifs à la délivrance des autorisations visées aux alinéas 35(2)b) ou c) ou au refus de délivrance;

**j)** concernant l'exportation de poisson;

**k)** concernant la prise ou le transport interprovincial de poisson;

**l)** prescrivant les pouvoirs et fonctions des personnes chargées de l'application de la présente loi, ainsi que l'exercice de ces pouvoirs et fonctions;

**m)** habilitant les personnes visées à l'alinéa l) à modifier les périodes de fermeture, les contingents ou les limites de taille ou de poids du poisson fixés par règlement pour une zone ou à les modifier pour un secteur de zone;

**n)** établissant la liste des espèces aquatiques envahissantes;

**o)** concernant le contrôle des espèces aquatiques envahissantes, en vue notamment :

- (i) respecting the prevention of the spread of such species,
- (ii) respecting the possession of members of such species, and their import, export and transport,
- (iii) respecting the release of members of such species into Canadian fisheries waters,
- (iv) respecting the handling of members of such species, or
- (v) requiring any person to keep any record, book or other document containing any information relevant to the control of such species, and respecting where, how and how long they are to be kept; and
- (p) prescribing anything that is required or authorized by this Act to be prescribed.

#### Regulations — Governor in Council

(2) The Governor in Council may make regulations establishing conditions for the exercise of the Minister's power to make regulations under subsection (3).

#### Amendments to list of aquatic invasive species

(3) The Minister may, by regulation, add species to the list of aquatic invasive species established by regulations made under paragraph (1)(n) or remove species from that list, and vary the places to which regulations made under paragraph (1)(o) apply.

#### Statutory Instruments Act

(4) Regulations made under subsection (3) are exempt from section 3 of the *Statutory Instruments Act*.

#### Regulations exempting certain Canadian fisheries waters

(5) The Governor in Council may make regulations exempting any Canadian fisheries waters from the application of sections 20, 21 and 35 and subsection 38(4).

R.S., 1985, c. F-14, s. 43; R.S., 1985, c. 35 (1st Supp.), ss. 3, 7; 1991, c. 1, s. 12; 2012, c. 19, s. 149.

#### Recommendation

**43.1** Orders and regulations under subsections 4.2(1) and (3), 34(2), 36(5) and (5.1), 37(3) and 38(9) and section 43 are made on the recommendation of the Minister or, if they are made for the purposes of and in relation to the subject matters set out in an order made under section

- (i) de prévenir la propagation des espèces aquatiques envahissantes,
- (ii) de régir la possession, l'importation, l'exportation ou le transport des organismes qui font partie d'une espèce aquatique envahissante,
- (iii) de régir leur remise dans des eaux de pêche canadiennes,
- (iv) de régir leur manutention,
- (v) d'obliger toute personne à tenir tout livre, registre ou autre document contenant tout renseignement utile pour le contrôle des espèces aquatiques envahissantes et régir la manière de le faire ainsi que le lieu et la durée de leur conservation;
- p) prévoyant toute mesure d'ordre réglementaire prévue par la présente loi.

#### Règlement — gouverneur en conseil

(2) Le gouverneur en conseil peut, par règlement, prévoir les conditions d'exercice par le ministre du pouvoir de prendre un règlement en vertu du paragraphe (3).

#### Modification de la liste des espèces aquatiques envahissantes

(3) Le ministre peut, par règlement, modifier la liste des espèces aquatiques envahissantes établie en application de l'alinéa (1)n) par adjonction ou suppression de toute espèce aquatique envahissante et modifier les lieux où les règlements pris en vertu de l'alinéa (1)o) sont applicables.

#### Loi sur les textes réglementaires

(4) Le règlement pris en vertu du paragraphe (3) est soustrait à l'application de l'article 3 de la *Loi sur les textes réglementaires*.

#### Règlement d'exemption — eaux de pêche canadiennes

(5) Le gouverneur en conseil peut, par règlement, exempter des eaux de pêche canadiennes de l'application des articles 20, 21 ou 35 ou du paragraphe 38(4).

L.R. (1985), ch. F-14, art. 43; L.R. (1985), ch. 35 (1<sup>er</sup> suppl.), art. 3 et 7; 1991, ch. 1, art. 12; 2012, ch. 19, art. 149.

#### Recommandation

**43.1** Les règlements et les décrets visés aux paragraphes 4.2(1) et (3), 34(2), 36(5) et (5.1), 37(3) et 38(9) et à l'article 43 sont pris sur recommandation du ministre ou, s'ils visent les fins précisées dans un décret pris en vertu

43.2, on the recommendation of the minister designated under that section.

2012, c. 19, s. 150.

### Designation

**43.2 (1)** The Governor in Council may, on the recommendation of the Minister and any other federal minister, by order, designate that other minister as the minister responsible for the administration and enforcement of subsections 36(3) to (6) for the purposes and in relation to the subject-matters set out in the order.

### Designated minister's powers, duties and functions

**(2)** The order may set out any powers, duties or functions of the Minister under this Act that the designated minister may exercise or perform — or any provisions of this Act in which a reference to the Minister is a reference to the designated minister — for the purposes of administering and enforcing subsections 36(3) to (6).

2012, c. 19, s. 150.

## Marine Plants

### Prohibition of harvesting of marine plants in certain cases

**44** Except in accordance with the conditions of a licence issued by the Minister under section 45, no person shall harvest marine plants in the coastal waters of Canada in contravention of any regulation made pursuant to paragraph 46(a).

R.S., c. 17(1st Suppl.), s. 5.

### Licences

**45** The Minister may, on receipt of an application made in accordance with the regulations, issue a licence to the applicant for the harvesting of marine plants in the coastal waters of Canada for a term not exceeding one year and on such conditions relating to

- (a)** the nature of the gear and equipment to be used in the harvesting,
- (b)** the manner in which the harvesting is to be carried out,
- (c)** the quantity of marine plants authorized to be harvested thereunder, and
- (d)** the area or areas within the coastal waters of Canada where the harvesting is to be carried out or where harvesting may not be carried out,

de l'article 43.2 et portent sur les sujets qui y sont précisés, sur celle du ministre désigné au titre de cet article.

2012, ch. 19, art. 150.

### Désignation

**43.2 (1)** Le gouverneur en conseil peut par décret, sur recommandation du ministre et de tout autre ministre fédéral, désigner cet autre ministre pour l'exécution et le contrôle d'application des paragraphes 36(3) à (6) à l'égard des fins et des sujets qui y sont précisés.

### Attributions

**(2)** Le gouverneur en conseil peut préciser dans le décret celles des attributions du ministre prévues par la présente loi qui sont conférées au ministre désigné — ou celles des dispositions de la présente loi où la mention du ministre vaut mention du ministre désigné — pour l'exécution et le contrôle d'application des paragraphes 36(3) à (6).

2012, ch. 19, art. 150.

## Plantes marines

### Interdiction dans certains cas de récolter des plantes marines

**44** Il est interdit, sauf en conformité avec les conditions d'un permis délivré par le ministre en vertu de l'article 45, de récolter, dans les eaux côtières du Canada, des plantes marines en violation d'un règlement d'application de l'alinéa 46a).

S.R., ch. 17(1<sup>er</sup> suppl.), art. 5.

### Permis

**45** Le ministre peut, sur demande réglementaire, délivrer un permis de récolte de plantes marines dans les eaux côtières du Canada pour une période maximale d'un an, aux conditions qu'il estime nécessaires pour la protection et la conservation des réserves de ces plantes dans ces eaux et portant sur :

- a)** la nature des engins et de l'équipement à utiliser;
- b)** le mode de récolte;
- c)** la quantité autorisée en vertu du permis;
- d)** les zones d'autorisation et d'interdiction de récolte dans les eaux côtières du Canada.

S.R., ch. 17(1<sup>er</sup> suppl.), art. 5.

as the Minister considers to be necessary for the protection and conservation of the marine plant resources of the coastal waters of Canada.

R.S., c. 17(1st Supp.), s. 5.

## Regulations

**46** The Governor in Council may make regulations

(a) prohibiting, subject to the conditions of any licence issued by the Minister under section 45,

(i) the harvesting of marine plants or of any class of marine plants,

(ii) the harvesting of marine plants or of any class of marine plants in quantities in excess of quantities specified in the regulations, or

(iii) the harvesting of marine plants or of any class of marine plants in a manner specified in the regulations,

in the coastal waters of Canada or any area or areas of the coastal waters of Canada specified in the regulations;

(b) prohibiting, notwithstanding the conditions of any licence, the harvesting of marine plants or of any class of marine plants in any area or areas of the coastal waters of Canada for such period or periods as are specified in the regulations;

(c) requiring persons to whom licences are issued under section 45 to maintain such books and records and to make such returns of information to the Minister as the Governor in Council deems necessary for the enforcement of this Act and the regulations; and

(d) prescribing the fees to be paid for licences issued under section 45.

R.S., c. 17(1st Supp.), s. 5; 1976-77, c. 35, s. 11.

## Interpretation

**47** For the purposes of sections 44 to 46,

**coastal waters of Canada** means all Canadian fisheries waters not within the geographical limits of any province; (*eaux côtières du Canada*)

**harvest** includes cut, take, dredge, rake or otherwise obtain; (*récolte*)

**marine plant** includes all benthic and detached algae, marine flowering plants, brown algae, red algae, green algae and phytoplankton. (*plante marine*)

R.S., c. 17(1st Supp.), s. 5.

## Règlements

**46** Le gouverneur en conseil peut, par règlement :

a) sous réserve des conditions d'un permis délivré par le ministre en vertu de l'article 45, interdire dans les eaux côtières du Canada ou dans toute zone de celles-ci qui y est spécifiée :

(i) la récolte de certaines plantes ou catégories de plantes marines,

(ii) le dépassement du plafond de récolte que fixe à leur égard le règlement,

(iii) leur récolte d'une façon défendue par le règlement;

b) interdire, par dérogation aux conditions de quelque permis que ce soit, la récolte de certaines plantes ou catégories de plantes marines dans une zone des eaux côtières du Canada, pour la ou les périodes spécifiées;

c) obliger les titulaires de permis délivrés en vertu de l'article 45 à tenir les livres et registres et à transmettre au ministre les renseignements qu'il juge nécessaires pour l'application de la présente loi et de ses règlements;

d) fixer les droits à payer pour les permis délivrés en vertu de l'article 45.

S.R., ch. 17(1<sup>er</sup> suppl.), art. 5; 1976-77, ch. 35, art. 11.

## Définitions

**47** Les définitions qui suivent s'appliquent aux articles 44 à 46.

**eaux côtières du Canada** Les eaux de pêche canadiennes situées à l'extérieur des limites géographiques des provinces. (*coastal waters of Canada*)

**plante marine** S'entend notamment des algues benthiques et détachées, des plantes marines à fleurs et des algues brunes, rouges et vertes ainsi que du phytoplancton. (*marine plant*)

### Saving

**48** Nothing in sections 44 to 47 shall be construed as preventing traditional harvesting of marine plants by aborigines for their use as food.

R.S., c. 17(1st Suppl.), s. 5.

## Powers of Fishery Officers and Fishery Guardians

### Inspection

**49 (1)** Subject to subsection (2), for the purpose of ensuring compliance with this Act and the regulations, a fishery officer or fishery guardian may enter and inspect any place, including any premises, vessel or vehicle, in which the officer or guardian believes on reasonable grounds there is any work or undertaking or any fish or other thing in respect of which this Act or the regulations apply and may

- (a) open any container that the officer or guardian believes on reasonable grounds contains any fish or other thing in respect of which this Act or the regulations apply;
- (b) examine any fish or other thing that the officer or guardian finds and take samples of it;
- (c) conduct any tests or analyses and take any measurements; and
- (d) require any person to produce for examination or copying any records, books of account or other documents that the officer or guardian believes on reasonable grounds contain information that is relevant to the administration of this Act or the regulations.

### Operation of data processing systems and copying equipment

**(1.1)** In carrying out an inspection of a place under subsection (1), a fishery officer or fishery guardian may,

- (a) use or cause to be used any data processing system at the place to examine any data contained in or available to the data processing system;
- (b) reproduce any record or cause it to be reproduced from the data in the form of a print-out or other intelligible output and remove the print-out or other output for examination or copying; and

**récolte** Action de recueillir, notamment en coupant, arrachant, draguant ou ratelant. (*harvest*)

S.R., ch. 17(1<sup>er</sup> suppl.), art. 5.

### Réserve

**48** Les articles 44 à 47 n'ont pas pour effet d'empêcher la récolte traditionnelle des plantes marines par les autochtones pour leur alimentation.

S.R., ch. 17(1<sup>er</sup> suppl.), art. 5.

## Pouvoirs des agents des pêches et des gardes-pêche

### Visite

**49 (1)** Pour l'application de la présente loi et de ses règlements, l'agent des pêches ou le garde-pêche peut, sous réserve du paragraphe (2), procéder à la visite de tous lieux — y compris un véhicule ou navire — et y effectuer des inspections, s'il a des motifs raisonnables de croire que s'y trouvent des poissons, objets ou ouvrages, ou qu'on y exploite une entreprise, assujettis à l'application de la présente loi ou de ses règlements; il est aussi autorisé à :

- a) ouvrir tout contenant dans lequel il a des motifs raisonnables de croire que se trouvent du poisson ou des objets assujettis à l'application de la présente loi ou de ses règlements;
- b) examiner les poissons ou tout objet qu'il y trouve et en prendre des échantillons;
- c) effectuer des essais, des analyses et des mesures;
- d) exiger de toute personne qu'elle lui fournisse pour examen ou copie les registres, documents comptables ou autres documents qu'il a des motifs raisonnables de croire contenir des renseignements utiles à l'application de la présente loi ou de ses règlements.

### Usage d'ordinateurs et de photocopieuses

**(1.1)** Dans le cadre de sa visite, l'agent des pêches ou le garde-pêche peut :

- a) utiliser ou faire utiliser les systèmes informatiques se trouvant sur place afin de prendre connaissance des données qui y sont contenues ou auxquelles ces systèmes donnent accès;
- b) à partir de ces données, reproduire ou faire reproduire le document sous forme d'imprimé ou toute autre forme intelligible, qu'il peut emporter pour examen ou reproduction;



(c) use or cause to be used any copying equipment at the place to make copies of any record, book of account or other document.

#### Duty to assist

(1.2) The owner or person in charge of a place that is inspected by a fishery officer or fishery guardian under subsection (1) and every person found in the place shall

(a) give the officer or guardian all reasonable assistance to enable the officer or guardian to carry out the inspection and exercise any power conferred by this section; and

(b) provide the officer or guardian with any information relevant to the administration of this Act or the regulations that the officer or guardian may reasonably require.

#### Disposition of samples

(1.3) A fishery officer or fishery guardian who takes a sample under paragraph (1)(b) may dispose of it in any manner that the officer or guardian considers appropriate.

#### Warrant required to enter dwelling-house

(2) Where any place, premises, vessel or vehicle referred to in subsection (1) is a dwelling-house, a fishery officer or fishery guardian may not enter that dwelling-house without the consent of the occupant except under the authority of a warrant issued under subsection (3).

#### Authority to issue warrant

(3) Where on *ex parte* application a justice of the peace is satisfied by information on oath

(a) that the conditions for entry described in subsection (1) exist in relation to a dwelling-house,

(b) that entry to the dwelling-house is necessary for any purpose relating to the administration or enforcement of this Act, and

(c) that entry to the dwelling-house has been refused or that there are reasonable grounds for believing that entry thereto will be refused,

the justice of the peace may issue a warrant under his hand authorizing the fishery officer or fishery guardian named therein to enter that dwelling-house subject to such conditions as may be specified in the warrant.

(4) [Repealed, 1991, c. 1, s. 13]

R.S., 1985, c. F-14, s. 49; R.S., 1985, c. 31 (1st Supp.), s. 35; 1991, c. 1, s. 13.

c) utiliser ou faire utiliser les appareils de reprographie se trouvant sur place pour faire des copies de tout registre, document comptable ou autre document.

#### Obligation d'assistance

(1.2) Le propriétaire ou le responsable du lieu qui fait l'objet de la visite, ainsi que toute personne qui s'y trouve, sont tenus d'accorder à l'agent des pêches ou au garde-pêche toute l'assistance possible dans l'exercice de ses fonctions et de lui donner les renseignements qu'il peut valablement exiger dans le cadre de l'application de la présente loi ou de ses règlements.

#### Sort des échantillons

(1.3) L'agent des pêches ou le garde-pêche qui, en vertu du paragraphe (1), prend un échantillon peut ensuite en disposer ou le détruire de la façon qu'il estime indiquée.

#### Mandat pour maison d'habitation

(2) Dans le cas d'une maison d'habitation, l'agent des pêches ou le garde-pêche ne peuvent toutefois procéder à la visite sans l'autorisation de l'occupant que s'ils sont munis du mandat prévu au paragraphe (3).

#### Délivrance du mandat

(3) Sur demande *ex parte*, le juge de paix peut signer un mandat autorisant, sous réserve des conditions éventuellement fixées, l'agent des pêches ou le garde-pêche qui y est nommé à procéder à la visite d'une maison d'habitation s'il est convaincu, sur la foi d'une dénonciation sous serment, que sont réunis les éléments suivants :

a) les circonstances prévues au paragraphe (1) existent;

b) la visite est nécessaire pour l'application de la présente loi;

c) un refus a été opposé à la visite ou il y a des motifs raisonnables de croire que tel sera le cas.

(4) [Abrogé, 1991, ch. 1, art. 13]

L.R. (1985), ch. F-14, art. 49; L.R. (1985), ch. 31 (1<sup>er</sup> suppl.), art. 35; 1991, ch. 1, art. 13.

## Search

**49.1 (1)** A fishery officer with a warrant issued under subsection (2) may enter and search any place, including any premises, vessel or vehicle, in which the officer believes on reasonable grounds there is

- (a) any work or undertaking that is being or has been carried on in contravention of this Act or the regulations;
- (b) any fish or other thing by means of or in relation to which this Act or the regulations have been contravened; or
- (c) any fish or other thing that will afford evidence in respect of a contravention of this Act or the regulations.

## Authority to issue warrant

**(2)** Where on *ex parte* application a justice of the peace is satisfied by information on oath that there are reasonable grounds to believe that there is in any place referred to in subsection (1) any fish or other thing referred to in subsection (1), the justice may issue a warrant authorizing the fishery officer named in the warrant to enter and search the place for the thing subject to any conditions that may be specified in the warrant.

## Where warrant not necessary

**(3)** Notwithstanding subsection (1), a fishery officer may exercise the power of search referred to in that subsection without a warrant issued under subsection (2) if the conditions for obtaining the warrant exist but by reason of exigent circumstances it would not be practical to obtain the warrant.

## Exigent circumstances

**(4)** For the purposes of subsection (3), exigent circumstances include circumstances in which the delay necessary to obtain the warrant would result in danger to human life or safety or the loss or destruction of evidence.

## Powers during search

**(5)** In carrying out a search of a place under this section, a fishery officer may exercise any power mentioned in subsection 49(1), (1.1) or (1.3).

R.S., 1985, c. 31 (1st Supp.), s. 35; 1991, c. 1, s. 14.

## Arrest

**50** Any fishery officer, fishery guardian or peace officer may arrest without warrant a person who that fishery officer, guardian or peace officer believes, on reasonable

## Pouvoirs de perquisition

**49.1 (1)** L'agent des pêches muni du mandat visé au paragraphe (2) peut pénétrer dans tous lieux — y compris un véhicule ou navire — et y effectuer une perquisition, s'il a des motifs raisonnables de croire, selon le cas :

- a) qu'on y exploite ou qu'on y a exploité un ouvrage ou une entreprise en contravention avec la présente loi ou ses règlements;
- b) que s'y trouvent des poissons ou objets qui ont donné lieu à une contravention de la présente loi ou de ses règlements;
- c) que s'y trouvent des poissons ou objets qui serviront à prouver la perpétration d'une telle infraction.

## Délivrance du mandat

**(2)** Sur demande *ex parte*, le juge de paix peut signer un mandat autorisant, sous réserve des conditions éventuellement fixées, un agent des pêches nommément désigné à pénétrer dans un lieu visé au paragraphe (1) et à y effectuer une perquisition s'il est convaincu, sur la foi d'une dénonciation sous serment, qu'il y a des motifs raisonnables de croire à la présence du poisson ou des objets visés au paragraphe (1).

## Perquisition sans mandat

**(3)** Par dérogation au paragraphe (1), l'agent des pêches peut exercer sans mandat le pouvoir de perquisition visé au paragraphe (2) lorsque l'urgence de la situation rend difficilement réalisable l'obtention du mandat, sous réserve que les conditions de délivrance de celui-ci soient réunies.

## Situation d'urgence

**(4)** Pour l'application du paragraphe (3), il y a notamment urgence dans les cas où le délai d'obtention du mandat risquerait soit de mettre en danger des personnes, soit d'entraîner la perte ou la destruction d'éléments de preuve.

## Pouvoirs

**(5)** L'agent des pêches peut, dans le cadre d'une perquisition effectuée en vertu du présent article, exercer les pouvoirs mentionnés aux paragraphes 49(1), (1.1) ou (1.3).

L.R. (1985), ch. 31 (1<sup>er</sup> suppl.), art. 35; 1991, ch. 1, art. 14.

## Arrestation

**50** Les agents des pêches, gardes-pêche ou agents de la paix peuvent arrêter sans mandat toute personne dont ils ont des motifs raisonnables de croire qu'elle a commis

grounds, has committed an offence against this Act or any of the regulations, or whom he finds committing or preparing to commit an offence against this Act or any of the regulations.

R.S., c. F-14, s. 36.

#### **Seizure of fishing vessel, etc.**

**51** A fishery officer or fishery guardian may seize any fishing vessel, vehicle, fish or other thing that the officer or guardian believes on reasonable grounds was obtained by or used in the commission of an offence under this Act or will afford evidence of an offence under this Act, including any fish that the officer or guardian believes on reasonable grounds

(a) was caught, killed, processed, transported, purchased, sold or possessed in contravention of this Act or the regulations; or

(b) has been intermixed with fish referred to in paragraph (a).

R.S., 1985, c. F-14, s. 51; 1991, c. 1, s. 15.

#### **Entry by fishery officer**

**52** In the discharge of his duties, any fishery officer, fishery guardian or other person accompanying him or authorized to such effect by the fishery officer may enter on and pass through or over private property without being liable for trespass.

R.S., c. F-14, s. 39.

#### **Disputes**

**53** Disputes between persons relating to fishing limits or claims to fishery stations, or relating to the position and use of nets and other fishing apparatus, shall be settled by the local fishery officer.

R.S., c. F-14, s. 40.

#### **Distances between fisheries**

**54** Fishery officers may determine or prescribe the distance between each and every fishery and shall forthwith remove any fishing apparatus or materials that the owner neglects or refuses to remove, and the owner is liable for a contravention of this Act and for the cost of removing the apparatus and materials and any damages that may result therefrom.

R.S., c. F-14, s. 41.

#### **Boundaries of estuary fishing**

**55** The Minister, or any fishery officer duly authorized by the Minister, has power to define the boundaries of tidal waters and estuaries and to designate what is the

une infraction à la présente loi ou à ses règlements ou qu'ils prennent en flagrant délit d'infraction ou se préparant à commettre une infraction à la présente loi ou à ses règlements.

S.R., ch. F-14, art. 36.

#### **Saisie des bateaux de pêche**

**51** L'agent des pêches ou le garde-pêche peut saisir les bateaux de pêche, les véhicules, le poisson et tous autres objets dont il a des motifs raisonnables de croire qu'ils ont été obtenus par la perpétration d'une infraction à la présente loi, qu'ils ont servi à la perpétration d'une telle infraction ou qu'ils serviront à prouver l'infraction, notamment les poissons dont il a des motifs raisonnables de croire :

a) soit qu'ils ont été pêchés, tués, transportés, achetés, vendus ou transformés en contravention avec la présente loi ou ses règlements, ou que leur possession était interdite par cette loi ou ces règlements;

b) soit qu'ils ont été mêlés à ceux visés à l'alinéa a).

L.R. (1985), ch. F-14, art. 51; 1991, ch. 1, art. 15.

#### **Droit de passage des agents des pêches**

**52** Dans l'exercice de leurs fonctions, l'agent des pêches, le garde-pêche et les personnes qui les accompagnent ou qui sont autorisées à cet effet par l'agent des pêches peuvent pénétrer dans une propriété privée et y circuler sans s'exposer à une poursuite pour violation du droit de propriété.

S.R., ch. F-14, art. 39.

#### **Contestations**

**53** L'agent local des pêches règle les différends portant sur les limites de pêcheries ou sur des réclamations relatives à des stations de pêche, ou sur la position et l'usage de filets et autres engins de pêche.

S.R., ch. F-14, art. 40.

#### **Distance entre les pêcheries**

**54** Les agents des pêches peuvent fixer la distance devant séparer les pêcheries; ils enlèvent sur-le-champ tous engins de pêche ou matériaux que le propriétaire néglige ou refuse d'enlever, lequel se rend coupable d'infraction à la présente loi et responsable des frais d'enlèvement et des dommages qui peuvent en résulter.

S.R., ch. F-14, art. 41.

#### **Limites des pêches dans les estuaires**

**55** Le ministre, ou tout agent des pêches habilité par lui, a le pouvoir de délimiter les eaux de marées et les estuaires et de déterminer l'embouchure d'une rivière, d'un

mouth of any river, stream or other water for the purposes of this Act.

R.S., c. F-14, s. 42.

### Gurry grounds

**56** Gurry grounds may be designated or defined by any fishery officer.

R.S., c. F-14, s. 43.

## Culture of Fish

### Waters for propagation of fish

**57** The Minister may authorize any river or other water to be set apart for the natural or artificial propagation of fish.

R.S., c. F-14, s. 44.

### Special licences for oyster beds

**58** Special licences and leases for any term of years may be granted to any person who wishes to plant or form oyster beds in any of the bays, inlets, harbours, creeks or rivers, or between any of the islands on the coast of Canada, and the holder of any such licence or lease has the exclusive right to the oysters produced or found on the beds within the limits of the licence or lease.

R.S., 1985, c. F-14, s. 58; 1999, c. 31, s. 123(F).

### Authority to provinces to grant leases for oyster cultivation

**59 (1)** The Governor in Council may, on such terms and conditions as are agreed on, authorize the government of any province to grant leases of such areas of the sea-coast, bays, inlets, harbours, creeks, rivers and estuaries of the province as the government of the province considers suitable for the cultivation and production of oysters, and any persons to whom such leases are granted by the province, subject to the fishery regulations of Canada, have the exclusive right to the oysters produced or found on the beds within the limits of their respective leases.

### Rights of Canada preserved

**(2)** Where an area referred to in subsection (1) or any part thereof is in a public harbour, nothing in that subsection prejudices the right or title of Canada to the enjoyment and use of the harbour for every purpose other than the cultivation and production of oysters.

R.S., 1985, c. F-14, s. 59; 1999, c. 31, s. 124(F).

## Vacant Public Property

### Vacant public property

**60 (1)** Every subject of Her Majesty may, for the purpose of landing, salting, curing and drying fish, use, and

cours d'eau ou de toute autre étendue d'eau pour l'application de la présente loi.

S.R., ch. F-14, art. 42.

### Décharge pour issues ou déchets de poisson

**56** Les décharges pour issues ou déchets de poisson peuvent être désignées ou définies par l'agent des pêches.

S.R., ch. F-14, art. 43.

## Aquaculture

### Rivières pour la reproduction du poisson

**57** Le ministre peut autoriser la mise à part de toute rivière ou autre étendue d'eau pour la reproduction naturelle ou artificielle du poisson.

S.R., ch. F-14, art. 44.

### Licences spéciales pour les huîtres

**58** Peut bénéficier d'une licence ou d'un bail spécial, pour un nombre quelconque d'années, quiconque désire constituer des huîtres dans les baies, anses, havres ou cours d'eau, ou entre les îles proches des côtes canadiennes. Le cas échéant, le titulaire a un droit exclusif sur les huîtres produites ou trouvées sur les bancs dans les limites fixées dans la licence ou le bail.

L.R. (1985), ch. F-14, art. 58; 1999, ch. 31, art. 123(F).

### Autorisation aux provinces de consentir des baux pour l'ostréiculture

**59 (1)** Le gouverneur en conseil peut, selon les modalités convenues, autoriser le gouvernement d'une province à consentir des baux pour les zones du littoral, des baies, anses, havres et cours d'eau de cette province que le gouvernement de celle-ci juge propices à l'ostréiculture; tous les preneurs possèdent, sous réserve des règlements fédéraux sur les pêches, un droit exclusif sur les huîtres produites ou trouvées sur les bancs compris dans les limites de leurs baux respectifs.

### Sauvegarde des droits du Canada

**(2)** Si les zones visées au paragraphe (1) sont, en tout ou en partie, situées dans un havre public, aucune disposition de celui-ci ne porte atteinte au droit ou titre que possède le Canada à la jouissance de ce havre et à son utilisation à toute autre fin que l'ostréiculture.

L.R. (1985), ch. F-14, art. 59; 1999, ch. 31, art. 124(F).

## Terrains publics vacants

### Terrains publics vacants

**60 (1)** Tout sujet de Sa Majesté peut utiliser des terrains publics vacants, dont l'usage est de par la loi commun et

cut wood on, vacant public property that by law is common and accessory to public rights of fishery and navigation.

### Prohibition

**(2)** No person shall occupy the same station on vacant public property described in subsection (1) unless it has been abandoned by the first occupant for twelve consecutive months.

### Payment may be required

**(3)** At the expiration of the twelve months referred to in subsection (2), any new occupier shall pay the value of the flakes and stages and other property thereon, of which he takes possession, or the buildings and improvements may be removed by the original owner.

### Leased property

**(4)** No property leased or licensed shall be deemed vacant.

R.S., c. F-14, s. 47.

## Information Returns

### Persons who may be required to provide information

**61 (1)** The following persons may be required under this Act to provide information or to keep records, books of account or other documents:

- (a)** any person who engages in fishing;
- (b)** any person who purchases fish for the purpose of resale;
- (c)** any owner, operator or manager of an enterprise that catches, cultures, processes or transports fish; and
- (d)** any agent or employee of a person referred to in paragraphs (a) to (c).

### Information that may be required

**(2)** A person referred to in subsection (1) may be required to provide information or to keep records or other documents relating to any of the following matters:

- (a)** the number, sex, size, weight, species, product form, value or other particulars of any fish caught, cultured, processed, transported, sold or purchased;
- (b)** the time and place at which any fish was caught or landed and the person, enterprise or vessel by which the fish was caught or landed;

inhérent au droit public de pêche et de navigation, pour y débarquer, saler, préparer et faire sécher le poisson, et y couper du bois à ces fins.

### Exclusivité

**(2)** Seul le premier occupant a l'usage d'un même poste de pêche sur les terrains visés au paragraphe (1) sauf s'il l'abandonne durant douze mois consécutifs.

### Paiement

**(3)** Quiconque s'installe à un poste abandonné depuis au moins douze mois paie à leur propriétaire la valeur des séchoirs, ateliers de salage et autres biens qui s'y trouvent et dont il prend possession; sinon, les bâtiments et aménagements peuvent être enlevés par l'ancien occupant qui les a mis en place.

### Propriété louée

**(4)** Les propriétés louées ou cédées sous licence ne sont pas réputées vacantes.

S.R., ch. F-14, art. 47.

## Rapports

### Personnes visées

**61 (1)** Les personnes suivantes peuvent être tenues sous le régime de la présente loi de fournir des renseignements ou de tenir des registres, documents comptables ou autres documents :

- a)** les pêcheurs;
- b)** ceux qui, en vue de la revente, achètent du poisson;
- c)** les propriétaires, exploitants ou directeurs d'une entreprise de pêche, d'aquaculture, de transformation ou de transport du poisson;
- d)** les mandataires ou salariés d'une personne visée aux alinéas a) à c).

### Renseignements à fournir

**(2)** Les personnes visées au paragraphe (1) peuvent être tenues de fournir des renseignements ou de tenir des registres ou autres documents à l'égard des questions suivantes :

- a)** le nombre, la taille, le poids, l'espèce, la forme du produit, le sexe, la valeur ou les autres caractéristiques du poisson pêché, élevé, transformé, transporté, vendu ou acheté;

(c) the time and place at which any fish was purchased and the person, enterprise or vessel from which the fish was purchased;

(d) the vessels, gear and methods used and the number of persons employed for the purpose of catching fish;

(e) the buildings, equipment, products and methods used and the number of persons employed for the purpose of culturing or processing fish; and

(f) any other matter relating to the proper management and control of fisheries or the conservation and protection of fish.

#### Duty to keep books

(3) A person referred to in subsection (1) shall keep any records, books of account or other documents that may be required by the regulations or by the terms and conditions of any lease or licence issued to the person under this Act and the records, books of account or other documents shall be kept in the manner and form and for the period prescribed by the regulations, lease or licence.

#### Duty to provide information

(4) A person referred to in subsection (1) shall, on the request of any fishery officer or fishery guardian, provide the officer or guardian, or any authority designated by the officer or guardian, with any information relating to a matter mentioned in subsection (2) that the officer or guardian may request.

#### Idem

(5) A person referred to in subsection (1) shall, in accordance with the regulations and the terms and conditions of any lease or licence issued to the person under this Act, provide a fishery officer, a fishery guardian or any authority designated in the regulations, lease or licence with any information relating to a matter mentioned in subsection (2) that the regulations, lease or licence requires.

R.S., 1985, c. F-14, s. 61; 1991, c. 1, s. 18.

b) la date et le lieu de prise ou de débarquement du poisson ainsi que la personne, l'entreprise ou le bateau en cause;

c) la date et le lieu d'achat du poisson ainsi que le nom de la personne, de l'entreprise ou du bateau qui l'a vendu;

d) les bateaux, engins de pêche et méthodes utilisés ainsi que le nombre de personnes affectées aux opérations de pêche;

e) le nombre de personnes, les bâtiments et l'équipement affectés à l'aquaculture ou à la transformation du poisson ainsi que les produits et les méthodes utilisés;

f) toute autre question concernant la gestion et la surveillance judicieuses des pêches ou la conservation et la protection du poisson.

#### Obligation de tenir des registres

(3) Les personnes visées au paragraphe (1) doivent tenir les registres, documents comptables et autres documents que prévoient les règlements ou les baux, permis et licences qui leur ont été délivrés sous le régime de la présente loi; ces registres, documents comptables et autres documents sont tenus de la façon prévue par les règlements, les baux, les permis et les licences et conservés durant la période qu'ils fixent.

#### Obligation de fournir les renseignements

(4) Les personnes visées au paragraphe (1) sont tenues de fournir à l'agent des pêches ou au garde-pêche, ou de faire parvenir à l'autorité qu'il désigne, les renseignements qu'elles possèdent à l'égard des questions mentionnées au paragraphe (2) et qu'il leur demande.

#### Idem

(5) Les personnes visées au paragraphe (1) sont tenues de fournir, en conformité avec les règlements ou avec les documents — baux, permis ou licences — qui leur ont été délivrés sous le régime de la présente loi, au garde-pêche, à l'agent des pêches ou à toute autre autorité désignée par les règlements ou les documents, les renseignements qu'elles possèdent à l'égard des questions mentionnées au paragraphe (2) et que précisent ces règlements ou documents.

L.R. (1985), ch. F-14, art. 61; 1991, ch. 1, art. 18.

## Obstruction and False Information

### Obstruction

**62** No person shall obstruct or hinder a fishery officer, a fishery guardian or an inspector who is carrying out duties or functions under this Act.

R.S., 1985, c. F-14, s. 62; R.S., 1985, c. 1 (2nd Suppl.), s. 213; 1991, c. 1, s. 18.

### False statements

**63 (1)** No person shall make a false or misleading statement, whether orally or in writing, to an inspector, a fishery officer, a fishery guardian, any authority designated by a fishery officer or a fishery guardian or any authority prescribed under paragraph 38(9)(a) or (b) who is carrying out duties or functions under this Act.

### False statements in licence application

**(2)** No person shall make a false or misleading statement, whether orally or in writing, in an application for a lease or licence under this Act.

### False records

**(3)** No person shall produce for examination or copying by an inspector, a fishery officer or a fishery guardian or any authority designated by a fishery officer or a fishery guardian any records, books of account or other documents that contain false or misleading information.

R.S., 1985, c. F-14, s. 63; 1991, c. 1, s. 18; 2012, c. 19, s. 151.

**64 and 65** [Repealed, 1991, c. 1, s. 18]

**66** [Repealed, 2012, c. 19, s. 152]

**67** [Repealed, 2012, c. 19, s. 152]

**68** [Repealed, 1991, c. 1, s. 20]

**69** [Repealed, 2012, c. 19, s. 153]

## Disposition of Seized Things

### Custody of seized things

**70 (1)** A fishery officer or fishery guardian who seizes any fish or other thing under this Act may retain custody of it or deliver it into the custody of any person the officer or guardian considers appropriate.

### Request by officer or guardian

**(2)** A person who is given custody of any fish or other thing under subsection (1) shall, on the request of a fishery officer or fishery guardian at any reasonable time,

## Entrave et faux renseignements

### Entrave

**62** Il est interdit d'entraver l'action des agents des pêches, des gardes-pêche ou des inspecteurs dans l'exercice des fonctions que leur confère la présente loi.

L.R. (1985), ch. F-14, art. 62; L.R. (1985), ch. 1 (2<sup>e</sup> suppl.), art. 213; 1991, ch. 1, art. 18.

### Fausse déclarations

**63 (1)** Il est interdit de faire, oralement ou par écrit, une déclaration fautive ou trompeuse aux agents des pêches, aux gardes-pêche — ou à l'autorité qu'ils désignent —, aux autorités désignées en vertu des alinéas 38(9)a) ou b) ou aux inspecteurs qui exercent les attributions que leur confère la présente loi.

### Faux renseignements

**(2)** Il est interdit de faire, oralement ou par écrit, une déclaration fautive ou trompeuse dans une demande de bail, de permis ou de licence visée par la présente loi.

### Faux registres

**(3)** Nul ne peut remettre à un agent des pêches, à un garde-pêche — ou à l'autorité qu'il désigne — ou à un inspecteur, pour examen ou reproduction, un registre, document comptable ou autre document qui contient des renseignements faux ou trompeurs.

L.R. (1985), ch. F-14, art. 63; 1991, ch. 1, art. 18; 2012, ch. 19, art. 151.

**64 et 65** [Abrogés, 1991, ch. 1, art. 18]

**66** [Abrogé, 2012, ch. 19, art. 152]

**67** [Abrogé, 2012, ch. 19, art. 152]

**68** [Abrogé, 1991, ch. 1, art. 20]

**69** [Abrogé, 2012, ch. 19, art. 153]

## Aliénation des objets saisis

### Garde des objets saisis

**70 (1)** L'agent des pêches ou le garde-pêche qui saisit du poisson ou un objet en vertu de la présente loi peut s'en réserver la garde ou l'attribuer à toute personne qu'il estime compétente.

### Remise

**(2)** La personne à qui la garde du poisson ou des objets saisis est confiée est tenue, sur demande présentée à toute heure convenable par l'agent des pêches ou le

make the fish or thing available for inspection by or deliver it into the custody of the officer or guardian.

### Perishables

**(3)** A fishery officer or fishery guardian who has custody of any fish or other perishable thing seized under this Act may dispose of it in any manner the officer or guardian considers appropriate and any proceeds realized from its disposition shall be paid to the Receiver General.

R.S., 1985, c. F-14, s. 70; 1991, c. 1, s. 21.

### Detention of seized things

**71 (1)** Subject to this section, any fish or other thing seized under this Act, or any proceeds realized from its disposition, may be detained until the fish or thing or proceeds are forfeited or proceedings relating to the fish or thing are finally concluded.

### Return on deposit of security

**(2)** Subject to subsection 72(4), a court may order any fish or other thing seized under this Act to be returned to the person from whom it was seized if security is given to Her Majesty in a form and amount that is satisfactory to the Minister.

### Return where proceedings not instituted

**(3)** Subject to subsection 72(4), where proceedings are not instituted in relation to any fish or other thing seized under this Act, the fish or thing or any proceeds realized from its disposition shall be returned to the person from whom it was seized

**(a)** on the Minister's decision not to institute proceedings; or

**(b)** on the expiration of ninety days after the day of the seizure or any further period that may be specified in an order made under subsection (4).

### Order to extend detention

**(4)** Where a court is satisfied, on the application of the Minister within ninety days after the day on which any fish or other thing is seized, that detention of the fish or thing for a period greater than ninety days is justified in the circumstances, the court may, by order, permit the fish or thing to be detained for any further period that may be specified in the order.

R.S., 1985, c. F-14, s. 71; 1991, c. 1, s. 21.

### Recovery of costs

**71.1 (1)** Where a person is convicted of an offence under this Act, the court may, in addition to any punishment imposed, order the person to pay the Minister an

garde-pêche, d'en permettre l'inspection par lui ou de le lui remettre.

### Marchandises périssables

**(3)** L'agent des pêches ou le garde-pêche qui a la garde de marchandises périssables saisies peut en disposer de la façon qu'il estime indiquée, le produit de l'aliénation étant versé au receveur général.

L.R. (1985), ch. F-14, art. 70; 1991, ch. 1, art. 21.

### Rétention des objets saisis

**71 (1)** Sous réserve des autres dispositions du présent article, le poisson ou les objets saisis en vertu de la présente loi ou le produit de leur aliénation peuvent être retenus jusqu'à ce que leur confiscation soit prononcée ou qu'une décision définitive soit rendue lors des poursuites intentées à leur égard.

### Remise sur dépôt d'une garantie

**(2)** Sous réserve du paragraphe 72(4), le tribunal peut ordonner la restitution au saisi du poisson ou des objets saisis, sur fourniture à Sa Majesté d'une garantie que le ministre juge acceptable quant au montant et à la forme.

### Remise en l'absence de poursuites

**(3)** Sous réserve du paragraphe 72(4), lorsqu'aucune poursuite n'est intentée, le poisson ou les objets saisis sont restitués ou le produit de leur aliénation remis au saisi dès que le ministre décide de ne pas tenter de poursuites à leur égard ou à l'expiration du délai de quatre-vingt-dix jours qui suit la saisie ou de tout autre délai supérieur fixé par une ordonnance rendue en vertu du paragraphe (4).

### Ordonnance de prolongation

**(4)** Le tribunal peut, par ordonnance, prolonger la période de rétention du poisson ou d'un objet saisi jusqu'à l'expiration du délai qu'il fixe si le ministre le lui demande dans les quatre-vingt-dix jours qui suivent la date de la saisie et s'il est convaincu que les circonstances le justifient.

L.R. (1985), ch. F-14, art. 71; 1991, ch. 1, art. 21.

### Dépens

**71.1 (1)** Le tribunal qui déclare une personne coupable d'une infraction à la présente loi peut, en sus de toute autre peine infligée, ordonner au contrevenant



amount of money as compensation for any costs incurred in the seizure, storage or disposition of any fish or other thing seized under this Act by means of or in relation to which the offence was committed.

#### Debt due to Her Majesty

**(2)** Where a court orders a person to pay an amount of money as compensation under subsection (1), the amount and any interest payable on that amount constitute a debt due to Her Majesty and may be recovered as such in any court of competent jurisdiction.

1991, c. 1, s. 21.

#### Forfeiture of things

**72 (1)** Where a person is convicted of an offence under this Act, the court may, in addition to any punishment imposed, order that any thing seized under this Act by means of or in relation to which the offence was committed, or any proceeds realized from its disposition, be forfeited to Her Majesty.

#### Forfeiture of fish

**(2)** Where a person is convicted of an offence under this Act that relates to fish seized pursuant to paragraph 51(a), the court shall, in addition to any punishment imposed, order that the fish, or any proceeds realized from its disposition, be forfeited to Her Majesty.

#### Idem

**(3)** Where a person is charged with an offence under this Act that relates to fish seized pursuant to paragraph 51(a) and the person is acquitted but it is proved that the fish was caught in contravention of this Act or the regulations, the court may order that the fish, or any proceeds realized from its disposition, be forfeited to Her Majesty.

#### Forfeiture where ownership not ascertainable

**(4)** Where the ownership of any fish or other thing seized under this Act cannot be ascertained at the time of the seizure, the fish or thing is thereupon forfeited to Her Majesty.

R.S., 1985, c. F-14, s. 72; R.S., 1985, c. 31 (1st Suppl.), s. 96; 1991, c. 1, s. 21.

#### Disposal of forfeited things

**73 (1)** Subject to sections 75 to 77, any fish or other thing forfeited to Her Majesty under subsection 72(1), (2) or (3) shall be disposed of after the final conclusion of the proceedings relating to the fish or thing, as the Minister directs.

d'indemniser le ministre des frais engagés dans le cadre de la saisie, de la garde ou de l'aliénation du poisson ou des objets saisis qui ont servi ou donné lieu à la perpétration de l'infraction.

#### Créance de Sa Majesté

**(2)** L'indemnisation visée au paragraphe (1) et les intérêts afférents constituent une créance de Sa Majesté dont le recouvrement peut être poursuivi à ce titre devant toute juridiction compétente.

1991, ch. 1, art. 21.

#### Confiscation

**72 (1)** Le tribunal qui déclare une personne coupable d'une infraction à la présente loi peut, en sus de toute autre peine infligée, ordonner que tout objet saisi qui a servi ou donné lieu à la perpétration de l'infraction — ou le produit de son aliénation — soit confisqué au profit de Sa Majesté.

#### Confiscation du poisson

**(2)** Le tribunal qui déclare une personne coupable d'avoir commis une infraction à la présente loi relativement à du poisson saisi en vertu de l'alinéa 51a) est tenu, en sus de toute autre peine infligée, d'ordonner la confiscation au profit de Sa Majesté du poisson ou du produit de son aliénation.

#### Idem

**(3)** Le tribunal qui acquitte une personne accusée d'une infraction à la présente loi relativement à du poisson saisi en vertu de l'alinéa 51a) peut ordonner la confiscation au profit de Sa Majesté du poisson ou du produit de son aliénation s'il est prouvé que ce poisson a été pêché en contravention avec cette loi ou ses règlements.

#### Confiscation en l'absence de propriétaire

**(4)** Sont immédiatement confisqués au profit de Sa Majesté le poisson ou les objets saisis dont il est impossible de déterminer l'appartenance au moment de la saisie.

L.R. (1985), ch. F-14, art. 72; L.R. (1985), ch. 31 (1<sup>er</sup> suppl.), art. 96; 1991, ch. 1, art. 21.

#### Aliénation des objets confisqués

**73 (1)** Sous réserve des articles 75 à 77, il est disposé, suivant les instructions du ministre, du poisson ou des objets confisqués en vertu des paragraphes 72(1), (2) et (3) lorsqu'une décision définitive met fin aux poursuites.

### Disposal where ownership not ascertained

(2) Subject to sections 75 to 77, any fish or other thing forfeited to Her Majesty under subsection 72(4) shall be disposed of after the expiration of thirty days from the day of forfeiture, as the Minister directs.

#### Exception

(3) Notwithstanding subsection (2), where any fishing gear or equipment is forfeited under subsection 72(4), it may be disposed of immediately on its forfeiture, as the Minister directs.

R.S., 1985, c. F-14, s. 73; 1991, c. 1, s. 21.

### Return of things not forfeited

**73.1 (1)** Subject to subsection (2), any fish or other thing seized under this Act, or any proceeds realized from its disposition, that are not forfeited to Her Majesty under section 72 shall, on the final conclusion of the proceedings relating to the fish or thing, be delivered to the person from whom the fish or thing was seized.

#### Exception

(2) Subject to subsection 72(4), where a person is convicted of an offence relating to any fish or other thing seized under this Act and the court imposes a fine but does not order forfeiture,

(a) the fish or thing may be detained until the fine is paid;

(b) it may be sold under execution in satisfaction of the fine; or

(c) any proceeds realized from its disposition may be applied in payment of the fine.

1991, c. 1, s. 21.

### Release of seized fish

**73.2** Notwithstanding anything in sections 70 to 73.1, a fishery officer or fishery guardian who seizes any fish under this Act may, at the time of the seizure, return to the water any fish that the officer or guardian believes to be alive.

1991, c. 1, s. 21.

### Definitions

**74** In sections 75 and 76,

**court of appeal** means, in the province in which an order under section 75 is made, the court of appeal for that province as defined in section 2 of the *Criminal Code*; (*cour d'appel*)

### Idem

(2) Sous réserve des articles 75 à 77, il est disposé, suivant les instructions du ministre, du poisson ou des objets confisqués en vertu du paragraphe 72(4), à l'expiration du délai de trente jours qui suit la date de la confiscation.

#### Exception

(3) Par dérogation au paragraphe (2), il peut être disposé au moment de la confiscation, suivant les instructions du ministre, des engins et de l'équipement de pêche confisqués en vertu du paragraphe 72(4).

L.R. (1985), ch. F-14, art. 73; 1991, ch. 1, art. 21.

### Remise des objets saisis mais non confisqués

**73.1 (1)** Sous réserve du paragraphe (2), lorsque, à l'issue des procédures portant sur le poisson ou les objets saisis, le tribunal n'a pas ordonné leur confiscation ou celle du produit de leur aliénation, les objets ou le produit sont remis au saisi.

#### Exception

(2) Sous réserve du paragraphe 72(4), les règles qui suivent s'appliquent lorsqu'une personne est déclarée coupable d'une infraction portant sur le poisson ou les objets saisis et que le tribunal inflige une amende mais n'ordonne pas la confiscation :

a) le poisson ou les objets peuvent être retenus jusqu'à l'acquittement de l'amende;

b) ils peuvent être vendus par adjudication forcée pour paiement de l'amende;

c) le produit de toute aliénation peut être affecté au paiement de l'amende.

1991, ch. 1, art. 21.

### Remise à l'eau du poisson

**73.2** Par dérogation aux articles 70 à 73.1, l'agent des pêches ou le garde-pêche peut au moment de la saisie remettre à l'eau tout poisson qu'il estime encore vivant.

1991, ch. 1, art. 21.

### Définitions

**74** Les définitions qui suivent s'appliquent aux articles 75 et 76.

**cour d'appel** Dans la province où l'ordonnance prévue à l'article 75 est rendue, la cour d'appel de cette province au sens de l'article 2 du *Code criminel*. (*court of appeal*)

### **judge** means

**(a)** in the Province of Quebec, a judge of the Superior Court for the district in which the thing in respect of which an application for an order under section 75 is made was seized,

**(a.1)** in the Province of Ontario, a judge of the Superior Court of Justice,

**(b)** in the Provinces of New Brunswick, Manitoba, Saskatchewan and Alberta, a judge of the Court of Queen's Bench,

**(c)** in the Province of Newfoundland and Labrador, a judge of the Trial Division of the Supreme Court,

**(c.1)** [Repealed, 1992, c. 51, s. 50]

**(d)** in the Provinces of Nova Scotia, British Columbia and Prince Edward Island, Yukon and the Northwest Territories, a judge of the Supreme Court, and

**(e)** in Nunavut, a judge of the Nunavut Court of Justice. (*judge*)

R.S., 1985, c. F-14, s. 74; R.S., 1985, c. 27 (2nd Supp.), s. 10; 1990, c. 16, s. 10, c. 17, s. 20; 1992, c. 51, s. 50; 1998, c. 30, s. 14; 1999, c. 3, s. 65; 2002, c. 7, s. 173; 2015, c. 3, s. 97.

### **Application by person claiming interest**

**75 (1)** Where any thing other than fish is forfeited to Her Majesty under subsection 72(1) or (4), any person who claims an interest in the thing as owner, mortgagee, lienholder or holder of any like interest, other than a person convicted of the offence that resulted in the forfeiture or a person from whom the thing was seized, may, within thirty days after the forfeiture, apply in writing to a judge for an order pursuant to subsection (4).

### **Date of hearing**

**(2)** The judge to whom an application is made pursuant to subsection (1) shall fix a day not less than thirty days after the date of filing of the application for the hearing thereof.

### **Notice**

**(3)** The applicant shall serve a notice of the application and of the hearing on the Minister at least fifteen days before the day fixed for the hearing.

### **Order by judge**

**(4)** Where, on the hearing of an application made pursuant to subsection (1), it is made to appear to the satisfaction of the judge,

### **juge**

**a)** Dans la province de Québec, un juge de la Cour supérieure du district où l'objet ou le poisson visé par une demande d'ordonnance fondée sur l'article 75 a été saisi;

**a.1)** dans la province d'Ontario, un juge de la Cour supérieure de justice;

**b)** dans les provinces du Nouveau-Brunswick, du Manitoba, de la Saskatchewan et d'Alberta, un juge de la Cour du Banc de la Reine;

**c)** dans la province de Terre-Neuve-et-Labrador, un juge de la Section de première instance de la Cour suprême;

**c.1)** [Abrogé, 1992, ch. 51, art. 50]

**d)** dans les provinces de la Nouvelle-Écosse, de la Colombie-Britannique, de l'Île-du-Prince-Édouard, au Yukon et dans les Territoires du Nord-Ouest, un juge de la Cour suprême;

**e)** au Nunavut, un juge de la Cour de justice. (*judge*)

L.R. (1985), ch. F-14, art. 74; L.R. (1985), ch. 27 (2<sup>e</sup> suppl.), art. 10; 1990, ch. 16, art. 10, ch. 17, art. 20; 1992, ch. 51, art. 50; 1998, ch. 30, art. 14; 1999, ch. 3, art. 65; 2002, ch. 7, art. 173; 2015, ch. 3, art. 97.

### **Demande faite par un tiers**

**75 (1)** Sauf lorsqu'il s'agit de poisson confisqué, toute personne — autre que celle qui a été déclarée coupable de l'infraction ayant entraîné la confiscation, ou que le saisi — qui prétend avoir un droit sur un objet confisqué en vertu des paragraphes 72(1) ou (4), à titre de propriétaire, de créancier hypothécaire ou de titulaire de privilège ou de tout droit semblable, peut, dans les trente jours qui suivent la confiscation, demander par écrit à un juge de rendre l'ordonnance prévue au paragraphe (4).

### **Date de l'audition**

**(2)** Le juge saisi de la demande visée au paragraphe (1) fixe, pour l'audition de celle-ci, une date postérieure d'au moins trente jours à son dépôt.

### **Avis**

**(3)** Le demandeur fait parvenir au ministre un avis de la demande et de l'audition au moins quinze jours avant la date fixée pour celle-ci.

### **Ordonnance du juge**

**(4)** Le juge fait droit à la requête en rendant une ordonnance déclarant que la confiscation ne porte pas atteinte au droit du demandeur et précisant la nature et l'étendue

**(a)** that the applicant is innocent of any complicity in the offence or alleged offence that resulted in the forfeiture and of any collusion in relation to that offence with the person who was convicted of, or who may have committed, the offence, and

**(b)** that the applicant exercised all reasonable care in respect of the person permitted to obtain the possession of the thing in respect of which the application is made to satisfy himself that the thing was not likely to be used contrary to this Act or the regulations, or, in the case of a mortgagee or lienholder, that he exercised such care with respect to the mortgagor or the liengiver,

the applicant is entitled to an order declaring that his interest is not affected by the forfeiture and declaring the nature and extent of his interest.

R.S., 1985, c. F-14, s. 75; 1991, c. 1, s. 22.

### Appeal

**76 (1)** The applicant or the Minister may appeal to the court of appeal from an order made under subsection 75(4) and the appeal shall be asserted, heard and decided according to the ordinary procedure governing appeals to the court of appeal from orders or judgments of a judge.

### Application to Minister

**(2)** The Minister shall, on application made to him by any person who has obtained a final order pursuant to this section or section 75,

**(a)** except in the case of any thing disposed of under subsection 70(3), direct that the thing to which the interest of the applicant relates be returned to the applicant; or

**(b)** direct that an amount equal to the value of the interest of the applicant, as declared in the order, be paid to him.

R.S., 1985, c. F-14, s. 76; 1991, c. 1, s. 23.

### Exception

**77** Sections 74 to 76 do not apply to

**(a)** any fishing gear or equipment that has been disposed of pursuant to subsection 73(3); or

**(b)** any fish that have been returned to the water pursuant to section 73.2.

R.S., 1985, c. F-14, s. 77; 1991, c. 1, s. 24.

de ce droit si, à l'audition de la demande, il constate la réunion des conditions suivantes :

**a)** il n'y a eu, à l'égard de l'infraction, réelle ou présumée, qui a entraîné la confiscation, aucune complicité ou collusion entre le demandeur et, selon le cas, la personne déclarée coupable ou tout auteur potentiel de l'infraction;

**b)** le demandeur a pris bien soin de s'assurer que l'objet ou le poisson visé par la demande ne servirait pas à la perpétration d'un acte contraire à la présente loi ou à ses règlements par la personne qui s'en est vu attribuer la possession ou, dans le cas d'un créancier hypothécaire ou d'un titulaire de privilège ou de droit semblable, le débiteur hypothécaire ou le débiteur assujéti au privilège ou droit en question.

L.R. (1985), ch. F-14, art. 75; 1991, ch. 1, art. 22.

### Appel

**76 (1)** Le demandeur ou le ministre peut interjeter appel, auprès de la cour d'appel, d'une ordonnance rendue aux termes du paragraphe 75(4). L'exercice de ce droit ainsi que l'audition de l'appel et la décision en l'espèce suivent la procédure ordinaire en matière d'appel d'ordonnances ou de jugements d'un juge devant la cour d'appel.

### Demande au ministre

**(2)** Sur demande du bénéficiaire d'une ordonnance finale rendue sous le régime du présent article ou de l'article 75, le ministre ordonne :

**a)** soit la restitution à l'intéressé de l'objet ou du poisson sur lequel il a fait valoir un droit, sauf dans le cas visé au paragraphe 70(3);

**b)** soit le versement à l'intéressé d'un montant égal à la valeur de son droit, telle qu'établie par l'ordonnance.

L.R. (1985), ch. F-14, art. 76; 1991, ch. 1, art. 23.

### Exception

**77** Les articles 74 à 76 ne s'appliquent pas :

**a)** aux engins et à l'équipement de pêche dont il a été disposé en vertu du paragraphe 73(3);

**b)** au poisson qui a été remis à l'eau en vertu de l'article 73.2.

L.R. (1985), ch. F-14, art. 77; 1991, ch. 1, art. 24.

## Offence and Punishment

### Punishment not otherwise provided for

**78** Except as otherwise provided in this Act, every person who contravenes this Act or the regulations is guilty of

(a) an offence punishable on summary conviction and liable, for a first offence, to a fine not exceeding one hundred thousand dollars and, for any subsequent offence, to a fine not exceeding one hundred thousand dollars or to imprisonment for a term not exceeding one year, or to both; or

(b) an indictable offence and liable, for a first offence, to a fine not exceeding five hundred thousand dollars and, for any subsequent offence, to a fine not exceeding five hundred thousand dollars or to imprisonment for a term not exceeding two years, or to both.

R.S., 1985, c. F-14, s. 78; 1991, c. 1, s. 24.

### Continuing offences

**78.1** Where any contravention of this Act or the regulations is committed or continued on more than one day, it constitutes a separate offence for each day on which the contravention is committed or continued.

1991, c. 1, s. 24.

### Offences by corporate officers, etc.

**78.2** Where a corporation commits an offence under this Act, any officer, director or agent of the corporation who directed, authorized, assented to, acquiesced in or participated in the commission of the offence is a party to and guilty of the offence and is liable on conviction to the punishment provided for the offence, whether or not the corporation has been prosecuted.

1991, c. 1, s. 24.

### Offences by employers

**78.3** In any prosecution for an offence under this Act, it is sufficient proof of the offence to establish that it was committed by an employee or agent of the accused, whether or not the employee or agent is identified or has been prosecuted for the offence, unless the accused establishes that the offence was committed without the knowledge or consent of the accused.

1991, c. 1, s. 24.

### Offences by licence holders

**78.4** In any prosecution for an offence under this Act, it is sufficient proof of the offence to establish that it was committed by a person in respect of any matter relating to any operations under a lease or licence issued to the accused pursuant to this Act or the regulations, whether

## Infractions et peines

### Peines dans les cas non spécifiés

**78** Sauf disposition contraire de la présente loi, quiconque contrevient à celle-ci ou à ses règlements commet une infraction et encourt, sur déclaration de culpabilité :

a) par procédure sommaire, une amende maximale de cent mille dollars lors d'une première infraction ou, en cas de récidive, une amende maximale de cent mille dollars et un emprisonnement maximal d'un an, ou l'une de ces peines;

b) par mise en accusation, une amende maximale de cinq cent mille dollars lors d'une première infraction ou, en cas de récidive, une amende maximale de cinq cent mille dollars et un emprisonnement maximal de deux ans, ou l'une de ces peines.

L.R. (1985), ch. F-14, art. 78; 1991, ch. 1, art. 24.

### Infractions continues

**78.1** Il est compté une infraction distincte à la présente loi ou à ses règlements pour chacun des jours au cours desquels se commet ou se continue toute infraction à l'une de leurs dispositions.

1991, ch. 1, art. 24.

### Dirigeants des personnes morales

**78.2** En cas de perpétration par une personne morale d'une infraction à la présente loi, ceux de ses dirigeants, administrateurs ou mandataires qui l'ont ordonnée ou autorisée ou qui y ont consenti ou participé, sont considérés comme des coauteurs de l'infraction et encourt, sur déclaration de culpabilité, la peine prévue, que la personne morale ait été ou non poursuivie.

1991, ch. 1, art. 24.

### Agents ou mandataires

**78.3** Dans les poursuites pour infraction à la présente loi, il suffit, pour prouver l'infraction, d'établir qu'elle a été commise par un agent ou un mandataire de l'accusé, que cet agent ou mandataire ait été ou non identifié ou poursuivi. L'accusé peut se disculper en prouvant que la perpétration a eu lieu à son insu ou sans son consentement.

1991, ch. 1, art. 24.

### Titulaires de permis et de licences

**78.4** Dans les poursuites pour infraction à la présente loi, il suffit, pour prouver l'infraction, d'établir qu'elle a été commise par une personne exerçant des activités régies par un bail, une licence ou un permis délivré à l'accusé en vertu de la présente loi ou de ses règlements, que

or not the person is identified or has been prosecuted for the offence, unless the accused establishes that the offence was committed without the knowledge or consent of the accused.

1991, c. 1, s. 24.

### **Burden of proving licence**

**78.5** In any prosecution for an offence under this Act, where a question arises as to whether a person was issued a licence, the burden is on the person to establish that the licence was issued.

1991, c. 1, s. 24.

### **Due diligence defence**

**78.6** No person shall be convicted of an offence under this Act if the person establishes that the person

- (a) exercised all due diligence to prevent the commission of the offence; or
- (b) reasonably and honestly believed in the existence of facts that, if true, would render the person's conduct innocent.

1991, c. 1, s. 24.

### **Additional fine**

**79** Where a person is convicted of an offence under this Act and the court is satisfied that as a result of committing the offence the person acquired monetary benefits or monetary benefits accrued to the person, the court may, notwithstanding the maximum amount of any fine that may otherwise be imposed under this Act, order the person to pay an additional fine in an amount equal to the court's finding of the amount of those monetary benefits.

R.S., 1985, c. F-14, s. 79; 1991, c. 1, s. 24.

### **Lease or licence cancelled, etc.**

**79.1** Where a person is convicted of an offence under this Act in respect of any matter relating to any operations under a lease or licence issued pursuant to this Act or the regulations, in addition to any punishment imposed, the court may, by order,

- (a) cancel the lease or licence or suspend it for any period the court considers appropriate; and
- (b) prohibit the person to whom the lease or licence was issued from applying for any new lease or licence under this Act during any period the court considers appropriate.

R.S., 1985, c. 31 (1st Suppl.), s. 97; 1991, c. 1, s. 24.

cette personne ait été ou non identifiée ou poursuivie. L'accusé peut se disculper en prouvant que la perpétration a eu lieu à son insu ou sans son consentement.

1991, ch. 1, art. 24.

### **Charge de la preuve**

**78.5** Dans les poursuites pour une infraction à la présente loi, il incombe, le cas échéant, à l'intéressé de démontrer qu'une licence ou un permis lui a été délivré.

1991, ch. 1, art. 24.

### **Disculpation**

**78.6** Nul ne peut être déclaré coupable d'une infraction à la présente loi s'il établit :

- a) soit qu'il a pris les mesures nécessaires pour l'empêcher;
- b) soit qu'il croyait raisonnablement et en toute honnêteté à l'existence de faits qui, avérés, l'innocenteraient.

1991, ch. 1, art. 24.

### **Amende supplémentaire**

**79** Le tribunal saisi d'une poursuite pour infraction à la présente loi peut, s'il est convaincu que le contrevenant a tiré des avantages financiers de la perpétration de celle-ci, lui infliger, indépendamment de l'amende maximale qui peut être infligée en vertu de cette loi, le montant qu'il juge égal à ces avantages, à titre d'amende supplémentaire.

L.R. (1985), ch. F-14, art. 79; 1991, ch. 1, art. 24.

### **Annulation ou suspension des permis, licences ou baux**

**79.1** En cas de déclaration de culpabilité pour une infraction à la présente loi commise dans l'exercice d'activités régies par un bail, une licence ou un permis délivré en vertu de cette loi ou de ses règlements, le tribunal peut, en sus de toute autre peine infligée, par ordonnance :

- a) annuler la licence, le permis ou le bail ou les suspendre pour la période qu'il estime indiquée;
- b) interdire au titulaire de présenter une nouvelle demande de licence, de permis ou de bail sous le régime de la présente loi pendant la période qu'il estime indiquée.

L.R. (1985), ch. 31 (1<sup>er</sup> suppl.), art. 97; 1991, ch. 1, art. 24.

### Orders of court

**79.2** Where a person is convicted of an offence under this Act, in addition to any punishment imposed, the court may, having regard to the nature of the offence and the circumstances surrounding its commission, make an order containing any one or more of the following prohibitions, directions or requirements:

- (a) prohibiting the person from doing any act or engaging in any activity that may, in the opinion of the court, result in the continuation or repetition of the offence;
- (b) directing the person to take any action the court considers appropriate to remedy or avoid any harm to any fish, fishery or fish habitat that resulted or may result from the commission of the offence;
- (c) directing the person to publish, in any manner the court considers appropriate, the facts relating to the commission of the offence;
- (d) directing the person to pay the Minister an amount of money as compensation, in whole or in part, for the cost of any remedial or preventive action taken by or caused to be taken on behalf of the Minister as a result of the commission of the offence;
- (e) directing the person to perform community service in accordance with any reasonable conditions that may be specified in the order;
- (f) directing the person to pay Her Majesty an amount of money the court considers appropriate for the purpose of promoting the proper management and control of fisheries or fish habitat or the conservation and protection of fish or fish habitat;
- (g) directing the person to post a bond or pay into court an amount of money the court considers appropriate for the purpose of ensuring compliance with any prohibition, direction or requirement mentioned in this section;
- (h) directing the person to submit to the Minister, on application by the Minister within three years after the date of the conviction, any information respecting the activities of the person that the court considers appropriate in the circumstances; and
- (i) requiring the person to comply with any other conditions that the court considers appropriate for securing the person's good conduct and for preventing the person from repeating the offence or committing other offences under this Act.

1991, c. 1, s. 24.

### Ordonnance du tribunal

**79.2** En plus de toute peine infligée et compte tenu de la nature de l'infraction ainsi que des circonstances de sa perpétration, le tribunal peut rendre une ordonnance imposant à la personne déclarée coupable tout ou partie des obligations suivantes :

- a) s'abstenir de tout acte ou toute activité risquant d'entraîner, à son avis, la continuation de l'infraction ou la récidive;
- b) prendre les mesures qu'il estime justes pour réparer ou éviter les dommages aux poissons, aux pêcheries ou à l'habitat du poisson résultant ou susceptibles de résulter de la perpétration de l'infraction;
- c) publier, de la façon indiquée par lui, les faits liés à la perpétration de l'infraction;
- d) indemniser le ministre, en tout ou en partie, des frais qu'il a engagés pour la réparation ou la prévention des dommages résultant ou susceptibles de résulter de la perpétration de l'infraction;
- e) exécuter des travaux d'intérêt collectif à des conditions raisonnables;
- f) verser à Sa Majesté, en vue de promouvoir la protection du poisson ou de l'habitat du poisson ainsi que la gestion et la surveillance judicieuses des pêches ou de l'habitat du poisson, les montants qu'il estime indiqués;
- g) en garantie de l'acquittement des obligations imposées au titre du présent article, fournir le cautionnement ou déposer auprès de lui le montant qu'il estime indiqué;
- h) fournir au ministre, sur demande présentée par celui-ci dans les trois ans suivant la déclaration de culpabilité, les renseignements relatifs à ses activités que le tribunal estime justifiés en l'occurrence;
- i) se conformer aux autres conditions qu'il estime justifiées pour assurer la bonne conduite du contrevenant et empêcher toute récidive.

1991, ch. 1, art. 24.

### Suspended sentence

**79.3 (1)** Where a person is convicted of an offence under this Act and the court suspends the passing of sentence pursuant to paragraph 731(1)(a) of the *Criminal Code*, the court may, in addition to any probation order made under that paragraph, make an order directing the person to comply with any prohibition, direction or requirement mentioned in section 79.2.

### Imposition of sentence

**(2)** Where a person whose sentence has been suspended fails to comply with an order made under subsection (1) or is convicted, within three years after the day on which the order was made, of another offence under this Act, the court may, on the application of the Attorney General, impose any sentence that could have been imposed if the passing of sentence had not been suspended.

1991, c. 1, s. 24; 1995, c. 22, s. 17.

### Debt due to Her Majesty

**79.4 (1)** Where the court makes an order under section 79.2 or 79.3 directing a person to pay an amount of money as compensation or for any other purpose, the amount and any interest payable on that amount constitute a debt due to Her Majesty and may be recovered as such in any court of competent jurisdiction.

### Publication

**(2)** Where a person fails to comply with an order made under section 79.2 or 79.3 directing the person to publish the facts relating to the commission of an offence, the Minister may publish those facts and recover the costs of publication from the person.

### Idem

**(3)** Where the Minister incurs publication costs under subsection (2), the amount of the costs and any interest payable on that amount constitute a debt due to Her Majesty and may be recovered as such in any court of competent jurisdiction.

1991, c. 1, s. 24.

### Variation of orders

**79.5 (1)** A court that has made an order under section 79.2 or 79.3 may, on application by the Attorney General or the person to whom the order applies, require the person to appear before it and, after hearing the person and the Attorney General, vary the order in any of the following ways that the court considers appropriate because of a change in the circumstances of the person since the order was made:

- (a)** change the order or any prohibition, direction or requirement mentioned in the order;

### Sursis

**79.3 (1)** Le tribunal qui, en vertu de l'alinéa 731(1)a) du *Code criminel*, surseoit au prononcé de la peine contre la personne déclarée coupable d'une infraction à la présente loi, en plus de toute ordonnance de probation rendue au titre de cet alinéa, peut, par ordonnance, enjoindre à cette personne de se conformer à l'une ou plusieurs des obligations mentionnées à l'article 79.2.

### Inobservation de l'ordonnance

**(2)** Sur demande du procureur général, le tribunal peut, lorsqu'une personne visée par une ordonnance rendue en vertu du paragraphe (1) ne se conforme pas aux modalités de celle-ci ou est déclarée coupable d'une autre infraction à la présente loi dans les trois ans qui suivent la date de l'ordonnance, infliger à cette personne la peine qui aurait pu lui être infligée s'il n'y avait pas eu de sursis.

1991, ch. 1, art. 24; 1995, ch. 22, art. 17.

### Créances de Sa Majesté

**79.4 (1)** Les sommes dont le paiement est ordonné aux termes d'une ordonnance rendue en vertu des articles 79.2 ou 79.3, ainsi que les intérêts afférents, constituent des créances de Sa Majesté dont le recouvrement peut être poursuivi à ce titre devant toute juridiction compétente.

### Publication

**(2)** En cas de manquement à l'obligation de publication imposée en vertu des articles 79.2 ou 79.3, le ministre peut procéder à la publication et en recouvrer les frais auprès de la personne assujettie à l'obligation.

### Idem

**(3)** Les frais de publication qu'engage le ministre au titre du paragraphe (2), ainsi que les intérêts afférents, constituent des créances de Sa Majesté dont le recouvrement peut être poursuivi à ce titre devant toute juridiction compétente.

1991, ch. 1, art. 24.

### Modification de l'ordonnance

**79.5 (1)** Le tribunal qui a rendu une ordonnance en vertu de l'article 79.2 ou 79.3 peut, sur demande du procureur général ou de la personne visée, faire comparaître celle-ci et, après avoir entendu les observations de l'un et l'autre, modifier l'ordonnance, selon ce qui est applicable en l'espèce et lui paraît justifié par tout changement dans la situation de la personne, de l'une ou plusieurs des façons suivantes :

- a)** en modifiant les obligations qu'elle prévoit;



**(b)** relieve the person, either absolutely or partially and for any period that the court considers appropriate, of compliance with any prohibition, direction or requirement mentioned in the order; or

**(c)** extend or decrease the period during which the order shall remain in force.

### Limitation

**(2)** Where an application has been heard by a court under subsection (1), no other application may be made in respect of the same order except with leave of the court.

1991, c. 1, s. 24.

### Offence and punishment

**79.6** Every person convicted of an offence under this Act who subsequently contravenes an order made under section 79.2 or 79.3 is guilty of

**(a)** an offence punishable on summary conviction and liable to a punishment not exceeding the maximum punishment to which a person is liable on summary conviction for the original offence; or

**(b)** an indictable offence and liable to a punishment not exceeding the maximum punishment to which a person is liable on conviction on indictment for the original offence.

1991, c. 1, s. 24.

## Ticketable Offences

### Procedure

**79.7 (1)** In addition to the procedures set out in the *Criminal Code* for commencing a proceeding, proceedings in respect of any offence prescribed by regulation may be commenced by a fishery officer, fishery guardian or inspector

**(a)** completing a ticket that consists of a summons portion and an information portion;

**(b)** delivering the summons portion of the ticket to the accused or mailing it to the accused at the accused's latest known address; and

**(c)** filing the information portion of the ticket with a court of competent jurisdiction before or as soon as practicable after the summons portion has been delivered or mailed.

### Content of ticket

**(2)** The summons and information portions of a ticket shall

**b)** en dégageant cette personne, absolument ou partiellement ou pour la durée qu'il estime indiquée de telle de ces obligations;

**c)** en modifiant la période de validité de l'ordonnance.

### Restriction

**(2)** Après audition de la demande visée au paragraphe (1), toute nouvelle demande relative à la même ordonnance est subordonnée à l'autorisation du tribunal.

1991, ch. 1, art. 24.

### Infraction et peine

**79.6** Quiconque est déclaré coupable d'une infraction à la présente loi et contrevient par la suite à une ordonnance rendue en vertu de l'article 79.2 ou 79.3 commet une infraction et encourt, sur déclaration de culpabilité :

**a)** par procédure sommaire, la peine maximale qui peut être infligée par la même procédure à la personne coupable de l'infraction originale;

**b)** par mise en accusation, la peine maximale qui peut être infligée par la même procédure à la personne qui est coupable de l'infraction originale.

1991, ch. 1, art. 24.

## Contraventions

### Procédure

**79.7 (1)** En plus des modes de poursuite prévus au *Code criminel*, les poursuites à l'égard des infractions désignées par règlement peuvent être intentées de la façon suivante : l'agent des pêches, le garde-pêche ou l'inspecteur :

**a)** remplit les deux parties — sommation et dénonciation — du formulaire réglementaire de contravention;

**b)** remet la partie sommation à l'accusé ou la lui envoie par la poste à sa dernière adresse connue;

**c)** dépose la partie dénonciation auprès du tribunal compétent avant, ou dès que possible après, la remise ou l'envoi par la poste de la partie sommation.

### Contenu du formulaire de contravention

**(2)** Les deux parties du formulaire comportent les éléments suivants :

- (a)** set out a description of the offence and the time and place of its alleged commission;
- (b)** include a statement, signed by the fishery officer, fishery guardian or inspector who completes the ticket, that the officer, guardian or inspector, as the case may be, has reasonable grounds to believe that the accused committed the offence;
- (c)** set out the amount of the fine prescribed by regulation for the offence and the manner in which and period within which it may be paid;
- (d)** include a statement that if the accused pays the fine within the period set out in the ticket, a conviction will be entered and recorded against the accused; and
- (e)** include a statement that if the accused wishes to plead not guilty or for any other reason fails to pay the fine within the period set out in the ticket, the accused must appear in the court and at the time set out in the ticket.

#### Notice of forfeiture

**(3)** Where any fish or other thing is seized under this Act and proceedings relating to the fish or thing are commenced by way of the ticketing procedure described in subsection (1), the fishery officer, fishery guardian or inspector who completes the ticket shall give written notice to the accused that if the accused pays the fine prescribed by regulation within the period set out in the ticket, the fish or thing, or any proceeds realized from its disposition, shall thereupon be forfeited to Her Majesty.

#### Consequences of payment

**(4)** Where an accused to whom the summons portion of a ticket is delivered or mailed pays the fine prescribed by regulation within the period set out in the ticket,

- (a)** the payment constitutes a plea of guilty to the offence described in the ticket and a conviction shall be entered against the accused and no further action shall be taken against the accused in respect of that offence; and
- (b)** notwithstanding sections 71 to 77, any fish or other thing seized from the accused under this Act relating to the offence described in the ticket, or any proceeds realized from its disposition, are forfeited to Her Majesty and may be disposed of as the Minister directs.

- a)** description de l'infraction et indication du lieu et du moment où elle aurait été commise;
- b)** déclaration, signée par l'agent des pêches, le garde-pêche ou l'inspecteur qui remplit le formulaire et selon laquelle il a des motifs raisonnables de croire que l'accusé a commis l'infraction;
- c)** indication du montant de l'amende réglementaire pour l'infraction, ainsi que la mention du mode et du délai de paiement;
- d)** avertissement précisant qu'en cas de paiement de l'amende dans le délai fixé, une déclaration de culpabilité sera inscrite au dossier de l'accusé;
- e)** mention du fait que, en cas de plaidoyer de non-culpabilité ou de non-paiement de l'amende dans le délai fixé, l'accusé est tenu de comparaître au tribunal, au lieu, au jour et à l'heure indiqués.

#### Préavis de confiscation

**(3)** En cas de saisie de poisson ou d'autres objets sous le régime de la présente loi, dans le cadre de poursuites introduites à l'égard de ceux-ci par remise d'un formulaire de contravention en conformité avec le présent article, l'agent des pêches, le garde-pêche ou l'inspecteur qui remplit le formulaire est tenu de remettre à l'accusé un avis précisant que sur paiement de l'amende réglementaire dans le délai fixé, le poisson, les objets saisis ou le produit de leur aliénation seront confisqués au profit de Sa Majesté.

#### Conséquences du paiement

**(4)** Lorsque l'accusé à qui la partie sommation d'un formulaire de contravention a été remise ou envoyée par la poste paie l'amende réglementaire dans le délai fixé :

- a)** le paiement constitue un plaidoyer de culpabilité à l'égard de l'infraction décrite dans le formulaire et une déclaration de culpabilité est inscrite au dossier de l'accusé; aucune autre poursuite ne peut alors être intentée contre l'accusé à l'égard de cette infraction;
- b)** par dérogation aux articles 71 à 77, le poisson ou les objets saisis entre les mains de l'accusé en rapport avec l'infraction décrite dans le formulaire ou le produit de leur aliénation sont confisqués au profit de Sa Majesté et il en est disposé suivant les instructions du ministre.

## Regulations

**(5)** The Governor in Council may make regulations prescribing

**(a)** offences under this Act to which this section applies and the manner in which those offences may be described in tickets; and

**(b)** the amount of the fine for a prescribed offence, which amount shall not exceed one thousand dollars.

1991, c. 1, s. 24.

## Joint Liability

### Who shall be liable

**80** Unless otherwise specified, every proprietor, owner, agent, tenant, occupier, partner or person actually in charge, either as occupant or servant, shall be deemed to be jointly and severally liable for any penalties or moneys recovered under any provision of this Act or the regulations.

R.S., c. F-14, s. 62.

**81** [Repealed, 1991, c. 1, s. 25]

## Limitation of Suits

### Limitation period

**82** A proceeding by way of summary conviction in respect of an offence under this Act may not be commenced later than five years after the day on which the offence was committed.

R.S., 1985, c. F-14, s. 82; 1991, c. 1, s. 26; 2012, c. 19, s. 154.

## Form of Procedure

### Form of procedure

**83** Except as otherwise provided in this Act, all penalties and forfeitures incurred under this Act or any of the regulations are recoverable and enforceable by summary proceedings taken under the provisions of the *Criminal Code* relating to summary convictions.

R.S., c. F-14, s. 65.

### No quashing for want of form

**84** No proceeding or conviction under this Act or any of the regulations shall be set aside or quashed on *certiorari* or otherwise for irregularity or defect in form, and no warrant of arrest or commitment shall be held void by reason of any defect therein, if it is therein alleged that

## Règlements

**(5)** Le gouverneur en conseil peut prévoir par règlement :

**a)** les infractions à la présente loi auxquelles le présent article s'applique ainsi que la façon de les décrire dans le formulaire de contravention;

**b)** le montant de l'amende applicable, ce montant ne pouvant toutefois être supérieur à 1 000 \$.

1991, ch. 1, art. 24.

## Responsabilité solidaire

### Responsabilité

**80** En l'absence de dispositions contraires, le propriétaire, possesseur, mandataire, locataire, occupant, associé ou la personne effectivement responsable, soit à titre d'occupant, soit à titre de préposé, sont réputés solidairement responsables des amendes ou sommes recouvrées en application de la présente loi ou de ses règlements.

S.R., ch. F-14, art. 62.

**81** [Abrogé, 1991, ch. 1, art. 25]

## Prescription

### Prescription

**82** Les poursuites relatives à toute infraction à la présente loi qui est punissable sur déclaration de culpabilité par procédure sommaire se prescrivent par cinq ans à compter de la date de l'infraction.

L.R. (1985), ch. F-14, art. 82; 1991, ch. 1, art. 26; 2012, ch. 19, art. 154.

## Forme de la procédure

### Forme de la procédure

**83** Sauf disposition contraire expresse de la présente loi, les dispositions du *Code criminel* concernant les déclarations de culpabilité par procédure sommaire s'appliquent aux peines et confiscations encourues en vertu de la présente loi ou de ses règlements.

S.R., ch. F-14, art. 65.

### Impossibilité d'annulation pour vice de forme

**84** Les procédures engagées ou les condamnations prononcées sous le régime de la présente loi ou de ses règlements ne sont pas susceptibles d'annulation, par évocation ou autre voie de recours, pour irrégularité ou vice de forme, et les mandats d'arrêt ou de dépôt ne peuvent être

the defendant has been convicted and there is a good and valid conviction to sustain the same.

R.S., c. F-14, s. 66.

## Applications of Penalties and Forfeitures

### Penalties and forfeitures

**85** The Governor in Council may prescribe the manner in which the proceeds of penalties and the proceeds of the sale of confiscated things shall be distributed.

R.S., c. F-14, s. 67.

### Appeal in proceedings by indictment

**86 (1)** For the purpose of Part XXI of the *Criminal Code*, any order and any decision not to make an order under subsection 71.1(1), subsection 72(1), (2) or (3) or section 79, 79.1, 79.2 or 79.3 as well as any sentence passed by the court under this Act shall be considered a sentence within the meaning of section 673 of the *Criminal Code*.

### Appeal in summary conviction proceedings

**(2)** For the purpose of Part XXVII of the *Criminal Code*, any order and any decision not to make an order under subsection 71.1(1), subsection 72(1), (2) or (3) or section 79, 79.1, 79.2 or 79.3 as well as any sentence passed by the court under this Act shall be considered a sentence within the meaning of section 785 of the *Criminal Code*.

R.S., 1985, c. F-14, s. 86; 1991, c. 1, s. 27.

## Application of Act to Waters Other than Canadian Fisheries Waters

### Application of Act to High Seas

**87 (1)** The provisions of this Act and the regulations that apply to any or all of Canadian fisheries waters, without anything in the context of those provisions indicating that they apply to any specified area of Canadian fisheries waters, shall, in relation to any fishing vessel or aircraft on or over the High Seas that is subject to the jurisdiction of Canada, or any act or thing done or omitted to be done on, from or by means of any such fishing vessel or aircraft, be deemed to extend and apply to the High Seas.

infirmés pour vice de forme, s'il y est allégué que le défendeur a été trouvé coupable et si une déclaration de culpabilité en bonne et due forme était la condamnation.

S.R., ch. F-14, art. 66.

## Emploi des amendes et confiscations

### Amendes et confiscations

**85** Le gouverneur en conseil peut fixer le mode de répartition du produit des amendes et de la vente des objets ou poissons confisqués.

S.R., ch. F-14, art. 67.

### Appel : acte d'accusation

**86 (1)** Pour l'application de la partie XXI du *Code criminel*, les ordonnances rendues en vertu des paragraphes 71.1(1), 72(1), (2) ou (3) ou des articles 79, 79.1, 79.2 ou 79.3, et toute décision de ne pas rendre une telle ordonnance, ainsi que toute peine infligée par le tribunal en vertu de la présente loi, sont assimilées à une peine au sens de l'article 673 du *Code criminel*.

### Appel : procédure sommaire

**(2)** Pour l'application de la partie XXVII du *Code criminel*, les ordonnances rendues en vertu des paragraphes 71.1(1), 72(1), (2) ou (3) ou des articles 79, 79.1, 79.2 ou 79.3, et toute décision de ne pas rendre une telle ordonnance, ainsi que toute peine infligée par le tribunal en vertu de la présente loi, sont assimilées à une peine au sens de l'article 785 du *Code criminel*.

L.R. (1985), ch. F-14, art. 86; 1991, ch. 1, art. 27.

## Application de la loi à d'autres eaux que les eaux de pêche canadiennes

### Application à la haute mer

**87 (1)** Les dispositions de la présente loi et de ses règlements qui s'appliquent de façon générale à tout ou partie des eaux de pêche canadiennes sans viser spécifiquement, par leur contexte, une zone déterminée de celles-ci sont, relativement à tout bateau de pêche ou aéronef se trouvant en haute mer ou la survolant et ressortissant de la compétence du Canada, ou relativement à un fait — acte ou omission — survenu à bord, à partir ou au moyen de ce bateau ou aéronef, réputées s'appliquer également à la haute mer.

## Regulations

**(2)** The Governor in Council may make regulations respecting fisheries located in waters other than Canadian fisheries waters applicable to vessels or aircraft subject to the jurisdiction of Canada.

### Inconsistency or conflict

**(3)** Where there is any inconsistency or conflict between any regulations that apply to the High Seas by virtue of subsection (1) and any regulations made under subsection (2), the latter regulations prevail to the extent of the inconsistency or conflict, unless the context otherwise requires.

R.S., c. F-14, s. 69; 1976-77, c. 35, s. 19.

### Jurisdiction of courts

**88** All courts and justices in Canada have the same jurisdiction with respect to offences under this Act as they have under sections 257 and 258 of the *Canada Shipping Act, 2001* with respect to offences under that Act, and those sections apply to offences under this Act in the same manner and to the same extent as they apply to offences under the *Canada Shipping Act, 2001*.

R.S., 1985, c. F-14, s. 88; 1990, c. 44, s. 18; 2001, c. 26, s. 302.

## Incorporation by Reference

### Externally produced material

**89 (1)** A regulation made under this Act may incorporate by reference material produced by a person or body other than the Minister, including by a government, a government agency or an international body.

### Jointly produced material

**(2)** A regulation made under this Act may incorporate by reference material produced jointly by the Minister and a government or government agency for the purpose of harmonizing the regulation with other laws.

### Internally produced standards

**(3)** A regulation made under this Act may incorporate by reference technical or explanatory material produced by the Minister, such as specifications, test methods, procedures, construction standards, operational standards, safety standards and performance standards of a technical nature.

### Incorporation as amended from time to time

**(4)** Material may be incorporated by reference as it exists on a particular date or as it is amended from time to time.

## Règlements

**(2)** Le gouverneur en conseil peut prendre des règlements régissant la pêche dans les eaux autres que les eaux de pêche canadiennes et applicables aux bateaux et aéronefs ressortissant de la compétence du Canada.

### Incompatibilité ou conflit

**(3)** Sauf indication contraire du contexte, les dispositions des règlements pris au titre du paragraphe (2) l'emportent sur les dispositions incompatibles des règlements qui s'appliquent à la haute mer en vertu du paragraphe (1).

S.R., ch. F-14, art. 69; 1976-77, ch. 35, art. 19.

### Compétence

**88** La compétence des tribunaux et juges du Canada à l'égard des infractions à la présente loi se détermine selon les articles 257 et 258 de la *Loi de 2001 sur la marine marchande du Canada*, ces articles s'appliquant à ces infractions comme si elles étaient prévues par cette loi.

L.R. (1985), ch. F-14, art. 88; 1990, ch. 44, art. 18; 2001, ch. 26, art. 302.

## Incorporation par renvoi

### Documents externes

**89 (1)** Peut être incorporé par renvoi dans tout règlement pris en vertu de la présente loi tout document produit par une personne ou un organisme autre que le ministre, notamment par un gouvernement, un organisme public ou une organisation internationale.

### Documents produits conjointement

**(2)** Peut être incorporé par renvoi dans tout règlement pris en vertu de la présente loi tout document produit conjointement par le ministre et un organisme de droit public en vue d'harmoniser le règlement avec d'autres règles de droit.

### Documents internes

**(3)** Peut être incorporé par renvoi dans tout règlement pris en vertu de la présente loi tout document de nature technique ou explicative produit par le ministre, notamment des spécifications, des méthodes d'essai, des procédures ou des normes de construction, d'exploitation, de rendement ou de sécurité.

### Portée de l'incorporation par renvoi

**(4)** L'incorporation par renvoi peut viser le document soit dans sa version à une date donnée, soit avec ses modifications successives.

### Transmission and publication

**(5)** For greater certainty, a document that is incorporated by reference in a regulation is not required to be transmitted for registration or publication in the *Canada Gazette* by reason only that it is incorporated by reference.

### Interpretation

**(6)** Subsections (1) to (5) do not limit any authority to make regulations incorporating material by reference that exists apart from those subsections.

2012, c. 19, s. 155.

### Défense

**90** A person is not liable to be found guilty of an offence for any contravention in respect of which a document that is incorporated by reference in a regulation is relevant unless, at the time of the alleged contravention, it was accessible as required by section 91 or was accessible to the person.

2012, c. 19, s. 155.

### Accessibility of incorporated documents

**91** The Minister shall ensure that any document that is incorporated by reference under subsection 89(1) is accessible.

2012, c. 19, s. 155.

### Transmission et publication

**(5)** Il est entendu que les documents qui sont incorporés par renvoi dans un règlement n'ont pas à être transmis pour enregistrement ni à être publiés dans la *Gazette du Canada* du seul fait de leur incorporation.

### Interprétation

**(6)** Les paragraphes (1) à (5) n'ont pas pour objet d'empêcher la prise de règlements incorporant par renvoi des documents autres que ceux qui y sont visés.

2012, ch. 19, art. 155.

### Moyen de défense

**90** Aucune déclaration de culpabilité ne peut découler d'une contravention faisant intervenir un document, indice, taux ou nombre — incorporé par renvoi dans un règlement — se rapportant au fait reproché, sauf si, au moment de ce fait, le document, indice, taux ou nombre était accessible en application de l'article 91 ou était accessible à la personne en cause.

2012, ch. 19, art. 155.

### Accessibilité

**91** Le ministre veille à ce que tout document incorporé par renvoi en vertu du paragraphe 89(1) soit accessible.

2012, ch. 19, art. 155.

## RELATED PROVISIONS

— R.S., 1985, c. 27 (2nd Supp.), s. 11

### Transitional: proceedings

**\*11** Proceedings to which any of the provisions amended by the schedule apply that were commenced before the coming into force of section 10 shall be continued in accordance with those amended provisions without any further formality.

\* [Note: Section 10 in force October 1, 1987, *see* SI/87-221.]

— R.S., 1985, c. 40 (4th Supp.), s. 2(2)

### Transitional — proceedings

**(2)** Every proceeding commenced before the coming into force of this section under a provision amended by the schedule shall be taken up and continued under and in conformity with the amended provision without any further formality.

\* [Note: Section 2 in force August 31, 1988, *see* SI/88-135.]

— 1990, c. 16, s. 24(1)

### Transitional: proceedings

**\*24 (1)** Every proceeding commenced before the coming into force of this subsection and in respect of which any provision amended by this Act applies shall be taken up and continued under and in conformity with that amended provision without any further formality.

\* [Note: Subsection 24(1) in force July 1, 1990, *see* SI/90-90.]

— 1990, c. 17, s. 45(1)

### Transitional: proceedings

**\*45 (1)** Every proceeding commenced before the coming into force of this subsection and in respect of which any provision amended by this Act applies shall be taken up and continued under and in conformity with that amended provision without any further formality.

\* [Note: Subsection 45(1) in force September 1, 1990, *see* SI/90-106.]

— 1998, c. 30, s. 10

### Transitional — proceedings

**\*10** Every proceeding commenced before the coming into force of this section and in respect of which any provision amended by sections 12 to 16 applies shall be taken up and continued under and in conformity with that amended provision without any further formality.

\* [Note: Section 10 in force April 19, 1999, *see* SI/99-37.]

## DISPOSITIONS CONNEXES

— L.R. (1985), ch. 27 (2<sup>e</sup> suppl.), art. 11

### Disposition transitoire : procédures

**\*11** Les procédures intentées en vertu des dispositions modifiées en annexe avant l'entrée en vigueur de l'article 10 se poursuivent en conformité avec les nouvelles dispositions sans autres formalités.

\* [Note: Article 10 en vigueur le 1<sup>er</sup> octobre 1987, *voir* TR/87-221.]

— L.R. (1985), ch. 40 (4<sup>e</sup> suppl.), par. 2(2)

### Disposition transitoire : procédures

**(2)** Les procédures intentées, avant l'entrée en vigueur du présent article, en vertu de dispositions modifiées en annexe, se poursuivent en conformité avec ces dispositions, sans autres formalités.

\* [Note: Article 2 en vigueur le 31 août 1988, *voir* TR/88-135.]

— 1990, ch. 16, par. 24(1)

### Disposition transitoire : procédures

**\*24 (1)** Les procédures intentées avant l'entrée en vigueur du présent paragraphe et auxquelles des dispositions visées par la présente loi s'appliquent se poursuivent sans autres formalités en conformité avec ces dispositions dans leur forme modifiée.

\* [Note: Paragraphe 24(1) en vigueur le 1<sup>er</sup> juillet 1990, *voir* TR/90-90.]

— 1990, ch. 17, par. 45(1)

### Disposition transitoire : procédures

**\*45 (1)** Les procédures intentées avant l'entrée en vigueur du présent paragraphe et auxquelles s'appliquent des dispositions visées par la présente loi se poursuivent sans autres formalités en conformité avec ces dispositions dans leur forme modifiée.

\* [Note: Paragraphe 45(1) en vigueur le 1<sup>er</sup> septembre 1990, *voir* TR/90-106.]

— 1998, ch. 30, art. 10

### Procédures

**\*10** Les procédures intentées avant l'entrée en vigueur du présent article et auxquelles s'appliquent des dispositions visées par les articles 12 à 16 se poursuivent sans autres formalités en conformité avec ces dispositions dans leur forme modifiée.

\* [Note: Article 10 en vigueur le 19 avril 1999, *voir* TR/99-37.]

— 2012, c. 31, s. 177

### Ministerial authorizations

**177 (1)** An authorization issued by the Minister under section 32 or subsection 35(2) of the *Fisheries Act* as it existed before June 29, 2012, or under paragraph 32(2)(c) or paragraph 35(2)(b) of the *Fisheries Act* as it existed before the coming into force of subsection 142(2) of the *Jobs, Growth and Long-term Prosperity Act*, and that is still valid on the day on which that subsection 142(2) comes into force, is deemed to be an authorization issued by the Minister under paragraph 35(2)(b) of the *Fisheries Act* after that coming into force.

### Amendment

**(2)** On the request of the holder of an authorization referred to in subsection (1) that is made within 90 days after the day on which subsection 142(2) of the *Jobs, Growth and Long-term Prosperity Act* comes into force, the Minister must examine the authorization, and the Minister may, within 210 days after the day on which that subsection 142(2) comes into force, confirm or amend the authorization or, if the Minister is of the opinion that the holder no longer needs an authorization, cancel it.

### Conditions of authorizations

**(3)** Paragraph 40(3)(a) of the *Fisheries Act* does not apply to the holder of an authorization referred to in subsection (1) until 90 days after the day on which subsection 142(2) of the *Jobs, Growth and Long-term Prosperity Act* comes into force. However, if the holder makes a request under subsection (2), then that paragraph does not apply to that holder until the day on which that holder receives notice of the Minister's decision to confirm, amend or cancel the authorization or until 210 days after the day on which that subsection 142(2) comes into force, whichever is earlier.

— 2012, ch. 31, art. 177

### Autorisation ministérielle

**177 (1)** Toute autorisation donnée par le ministre au titre de l'article 32 ou du paragraphe 35(2) de la *Loi sur les pêches* dans sa version avant le 29 juin 2012 ou au titre de l'alinéa 32(2)c ou 35(2)b de cette loi dans sa version avant l'entrée en vigueur du paragraphe 142(2) de la *Loi sur l'emploi, la croissance et la prospérité durable* et encore valide à la date d'entrée en vigueur de ce paragraphe 142(2) est réputée être une autorisation donnée par le ministre au titre de l'alinéa 35(2)b de la *Loi sur les pêches* après l'entrée en vigueur de ce paragraphe 142(2).

### Examen

**(2)** Sur demande du titulaire d'une autorisation visée au paragraphe (1) et présentée dans les quatre-vingt-dix jours suivant l'entrée en vigueur du paragraphe 142(2) de la *Loi sur l'emploi, la croissance et la prospérité durable*, le ministre examine l'autorisation et peut, dans les deux cent dix jours suivant cette date d'entrée en vigueur, la confirmer, la modifier ou, s'il est d'avis qu'une telle autorisation n'est plus requise, l'annuler.

### Condition

**(3)** L'alinéa 40(3)a de la *Loi sur les pêches* ne s'applique pas au titulaire d'une autorisation visée au paragraphe (1) dans les quatre-vingt-dix jours suivant l'entrée en vigueur du paragraphe 142(2) de la *Loi sur l'emploi, la croissance et la prospérité durable*. Toutefois, si une demande a été présentée au titre du paragraphe (2), cet alinéa ne s'applique pas au titulaire jusqu'au jour où il reçoit la décision du ministre confirmant, modifiant ou annulant l'autorisation ou jusqu'au deux cent dixième jour suivant la date d'entrée en vigueur de ce paragraphe 142(2), le premier en date étant à retenir.



## AMENDMENTS NOT IN FORCE

— 1992, c. 47, s. 84 (Sch., s. 3)

1991, c. 1, s. 24

**3 The heading preceding section 79.7 and section 79.7 are repealed.**

— 2013, c. 25, s. 21

**21 Subsection 5(4) of the *Fisheries Act* is amended by striking out “or” at the end of paragraph (b), by adding “or” at the end of paragraph (c) and by adding the following after paragraph (c):**

**(d)** Yale First Nation laws, as defined in subsection 2(2) of the *Yale First Nation Final Agreement Act*, made under Chapter 8 of the Agreement, as defined in subsection 2(1) of that Act, given effect by that Act.

## MODIFICATIONS NON EN VIGUEUR

— 1992, ch. 47, art. 84 (ann., art. 3)

1991, ch. 1, art. 24

**3 L'article 79.7 et l'intertitre qui le précède sont abrogés.**

— 2013, ch. 25, art. 21

**21 Le paragraphe 5(4) de la *Loi sur les pêches* est modifié par adjonction, après l'alinéa c), de ce qui suit :**

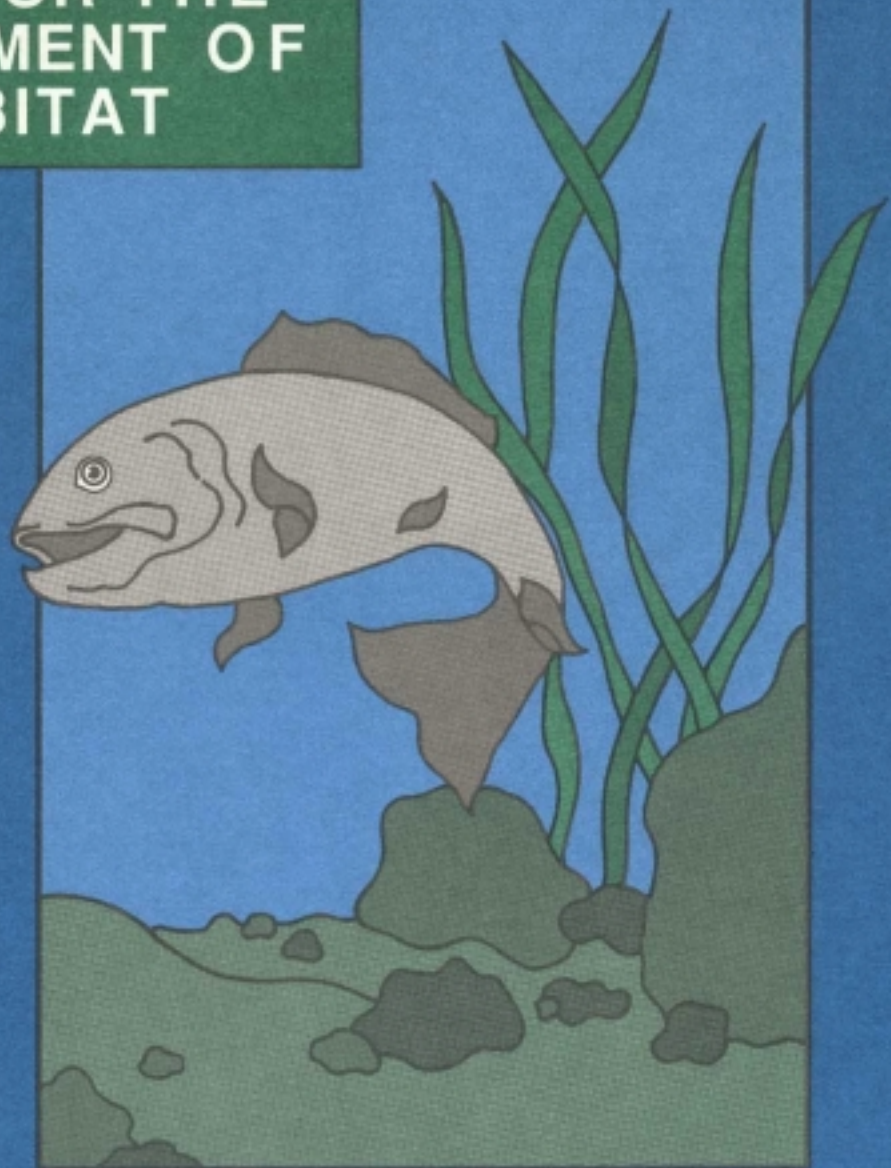
**d)** les lois de la Première Nation de Yale, au sens du paragraphe 2(2) de la *Loi sur l'accord définitif concernant la Première Nation de Yale*, adoptées sous le régime du chapitre 8 de l'accord, au sens du paragraphe 2(1) de cette loi, mis en vigueur par celle-ci.

**APPENDIX D: FISHERIES AND OCEANS CANADA HABITAT POLICY**



SCIENTIFIC EXCELLENCE • RESOURCE PROTECTION & CONSERVATION • BENEFITS FOR CANADIANS

THE DEPARTMENT OF FISHERIES AND OCEANS  
**POLICY FOR THE  
MANAGEMENT OF  
FISH HABITAT**



Fisheries  
and Oceans

Pêches  
et Océans

Canada

**Text prepared by:**

Fish Habitat Management Branch

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# FORWARD

This policy on fish habitat management is an explicit recognition by the federal government that fish habitats are national assets.

It is, I believe, an ambitious but realistic policy, designed to achieve a Net Gain of habitat for Canada's fisheries resources in a manner that will be of benefit to all users. It does this by providing a comprehensive framework for the conservation, restoration and development of fish habitats and strategies for the implementation of its various components.

The policy is also a blueprint for a common-sense, cooperative approach between the private sector and various levels of government. It reflects, in particular, the willingness of this Minister and this department to work cooperatively with all parties. The policy itself was developed through a process of federal, provincial, territorial and private sector consultation and cooperative effort.

It is, in short, a policy based on a confidence in the ability of Canadians to work together to arrive at solutions to problems and to harness creative energies in order to increase the social and economic benefits derived by Canadians from productive fish habitats and the fisheries resources they support.

I look forward to the continued cooperation of all interested parties in the implementation of this policy.

Tom Siddon, M.P., P.C.  
Minister of Fisheries and Oceans

# CHAPTER 1

## A FEDERAL PERSPECTIVE ON FISH HABITAT MANAGEMENT

### 1.1 Introduction

This document provides Canadians with a statement of the Department of Fisheries and Oceans' policy objectives, goals and strategies for the management of fish habitats supporting Canada's freshwater and marine fisheries. Fish habitats constitute healthy production systems for the nation's fisheries and, when the habitats are functioning well, Canada's fish stocks will continue to produce economic and social benefits throughout the country.

The policy provides objective statements against which the Department can measure its performance in fish habitat management and offers a framework for more consistent administration of the Department's habitat management program. It signals a renewed effort by the Department of Fisheries and Oceans to increase the social and economic benefits derived by Canadians from productive fish habitats and the fisheries resources they support.

In a broader sense, this policy will contribute directly to the management of human use of the biosphere, so that it may yield the greatest environmentally sustainable economic benefit to mankind.

The Department of Fisheries and Oceans developed this policy framework following public release of a discussion paper in 1983 and of a proposed policy and procedures paper in 1985. In the course of the public discussion that followed, it became clear that an improved approach was needed to manage fish habitat and to consider opposing views before habitat decisions are taken. In particular, it became clear that integrated resource planning, combined with better integration of habitat and fisheries management objectives, must become more widely applied in fish habitat management.

Under the federal Fisheries Act, "fish habitats" are defined as those parts of the environment "on which fish depend, directly or indirectly, in order to carry out their life processes". The Act also defines "fish" to include all the life stages of "fish, shellfish, crustaceans, marine animals and marine plants". Accordingly, pursuant to the Act, this policy will apply to all projects and activities, large and small, in or near the water, that could "alter, disrupt or destroy" fish habitats, by chemical, physical or biological means, thereby potentially undermining the economic, employment and other benefits that flow from Canada's fisheries resources.

Fish habitats can be damaged in ways both obvious and subtle, and by changes big and small. A multimillion dollar hydro project can take its toll on a spawning run of fish, but so can a poorly-installed culvert under a farm lane. Among the most common threats to fish habitats are those associated with industrial and municipal liquid waste discharges; stream diversions; introduction of silt; barriers to migration; alteration of flow; nutrient imbalances; acid rain and toxic airborne contaminants; pesticides; and other chemical, physical and biological agents.

Fish are an important part of Canada's renewable resource base. The commercial and recreational fisheries contribute several billion dollars annually to the national economy. Fish and their habitats are also a valuable tourist attraction, generating local income quite apart from fishing activities. In addition, there are social benefits that flow from the fishery resource, such as support for traditional lifestyles in remote communities. Finally, to many Canadians, the simple knowledge that the fish are there serves as a strong indicator of a healthy environment. With wise management, habitats may be conserved, restored and developed so that the fisheries resource will provide increasing benefits to the nation in perpetuity.

## **1.2 National Application**

The policy applies to those habitats directly or indirectly supporting those fish stocks or populations that sustain commercial, recreational or Native fishing activities of benefit to Canadians. In addition, Fisheries and Oceans recognizes its responsibility to protect and increase fish stocks and their habitats that have either a demonstrated potential themselves to sustain fishing activities, or a demonstrated ecological support function for the fisheries resources. In accordance with this philosophy, the policy will not necessarily be applied to all places where fish are found in Canada, but it will be applied as required in support of fisheries resource conservation.

Under the Constitution Act (1982), the federal government has authority for all fisheries in Canada, and it retains direct management control of fisheries resources in the Atlantic Provinces of Newfoundland, New Brunswick, Nova Scotia and Prince Edward Island; for the marine and anadromous salmon fisheries of British Columbia; for the marine fisheries of Quebec; and for the fisheries of the Yukon and Northwest Territories. In addition, the federal government becomes involved in transboundary and international situations where undertakings in one province, territory or country threaten fish habitat in another.

Following references to the Privy Council and several Court decisions, formal agreements were negotiated during the period 1899 and 1930 between the federal government and a number of provinces. As a result, the federal government has made special arrangements concerning day-to-day management for the inland fisheries of Ontario, Manitoba, Saskatchewan and Alberta, and for some fisheries in the provinces of Quebec (where the province manages all freshwater, anadromous and catadromous fisheries), and British Columbia (where the province manages all freshwater species, excepting anadromous salmon). In these six provinces (or parts thereof), federal fisheries legislation is administered by the provincial fisheries management agency, although provincial fisheries regulations must be promulgated by the federal government. Conservation Officers in several provinces are designated as Fishery Officers for purposes of administering the Fisheries Act.

The Department recognizes that experienced freshwater fisheries management agencies, with the capability to administer regulations, and to manage fish habitats on behalf of users of the fisheries resource, have evolved in the six provinces (or parts thereof) identified in the preceding paragraph. The federal government will not actively apply this policy in those jurisdictions; rather the provincial agencies concerned are being encouraged to apply it through bi-lateral administrative agreements and protocols which will also clarify roles and responsibilities for the respective parties involved. Also, interagency referrals and other forms of federal-provincial cooperation will continue to be used and agreements developed in those other provinces and territories where the Department of Fisheries and Oceans administers fisheries legislation directly.

The Department of Fisheries and Oceans will apply this policy primarily in freshwaters, estuaries and coastal situations where most damage to fish habitats has taken place and where the risk of future damage is highest. In the offshore marine waters on Canada's continental shelves, the policy will also apply, the main areas of interest being: (1) the surveillance and control of chemical hazards introduced, or that may be introduced, by man's activities, and (2) managing the potential adverse effects of plastic debris, ocean dumping, shipping and oil and gas exploitation activities. The policy will be applied to projects and activities of any scale, large or small, to avoid cumulative losses of habitats that support Canada's fisheries resources.

The Department has commenced a phased program of policy implementation, giving due consideration to regional priorities and to program resource requirements for habitat management.

## **1.3 International Considerations**

Fish habitat management policy serves the objectives of more than just the federal fisheries programs in Canada. The habitat management program of the Department of Fisheries and Oceans helps to fulfill Canada's commitment to the United Nations' World Conservation Strategy, part of which calls for "the maintenance of the support systems for fisheries and for the control of pollution". Moreover, this policy represents the first national example of a workable



environmentally sustainable approach to resource management in Canada. Accordingly, the policy supports the goals of the World Commission on Environment and Development.

The Department will continue to address concerns for fish habitat management in international forums whose mandates have a bearing on fish habitat objectives. The International Joint Commission and the Great Lakes Fishery Commission will be supported in addressing bilateral issues that have a bearing on the health of fisheries resources. Advice will be provided, through the Departments of External Affairs and Transport, to the International Maritime Organization (IMO) and the Marine Environmental Cooperative Agreement (MECA) on the subject of hazardous cargoes at sea, and environmental issues related to marine transport. Furthermore, technical and policy input will be provided by the Department in support of the Canadian position at the London Dumping Convention. The Department will also continue to cooperate with both the Organization for Economic Cooperation and Development (OECD) and the International Council for the Exploration of the Sea (ICES) in their efforts to coordinate international research, monitoring and assessment programs.

The Department will support and provide advice to various international organizations in their efforts to help conserve the global aquatic resources from threats such as radioactive and toxic contamination, acid rain, the build-up of carbon dioxide in the atmosphere, and other detrimental climatic alterations.



#### **1.4 Support for Government Priorities**

The wise management of fish habitat supporting Canada's productive fisheries will ensure that the socioeconomic benefits and employment generated by the fisheries sector are not forfeited unknowingly by actions in other economic sectors and that the concerns of those other sectors are taken into account. Direct benefits of the policy will be as outputs from various fisheries activities: sometimes as a source of food; or as wholesome fish caught and sold; or as income and pleasure from the vast amount of recreational fishing taking place in Canada.

Government, private sector and citizen-initiated projects to restore degraded habitats will generate employment opportunities. Furthermore, the Department of Fisheries and Oceans recognizes the potential impact of fish habitat decisions on regional development, industrial development, other resource sectors, and public projects. The Department will consider the interests of other resource users and will strive under this policy to take reasonable, timely and consistent decisions to maintain and improve the productive capacity of fish habitats.

It is recognized that Native peoples could assume a greater role in local fisheries management and environmental protection in future. Through this policy, Fisheries and Oceans offers useful approaches for effective habitat conservation that could be implemented within the context of both Native claims and self government. The Department is prepared to cooperate with Native groups and the appropriate provincial and territorial fisheries agencies to develop programs, techniques and approaches to improve fish habitat management within their areas of interest.

# CHAPTER 2

## THE POLICY

### **2.1 Policy Objective - Net Gain of Habitat for Canada's Fisheries Resources**

*Increase the natural productive capacity of habitats for the nation's fisheries resources, to benefit present and future generations of Canadians.*

#### **Interpretation**

1. The Department of Fisheries and Oceans' long-term policy objective is the achievement of an overall net gain of the productive capacity of fish habitats. Progress toward this objective can be achieved through the active conservation of the current productive capacity of habitats, the restoration of damaged fish habitats and the development of habitats as depicted in Figure 1 and further described in this chapter. Increases in the productive capacity of fish habitats are considered to be possible for anadromous and certain freshwater and shellfish species in the short-term; but gains through habitat modification for strictly marine species will be more limited in most instances.
2. The habitat programs of the Department of Fisheries and Oceans, assisted by cooperative undertakings with other federal departments, provincial and territorial governments, private industry and non-government groups, will be administered to achieve this policy objective for the nation's fisheries resources through various protection measures and resource planning initiatives, as outlined in Chapter 3.
3. The strategies for achieving conservation and protection of habitat are described in further detail in the following chapters. Strategies for achieving the restoration and development goals are in the developmental stage, and the Department will cooperate with other agencies and the private sector in further expanding research, technology, and procedures that will contribute to the effective application of the net gain policy objective.
4. In accordance with the implementation strategies outlined in Chapter 4, this policy objective is applicable to all threats to the productive capacity of fish habitats, including water pollution, acid rain, biological agents, and any type of physical disruption.
5. Under the terms of a Memorandum of Understanding with Environment Canada, the Minister of Fisheries and Oceans continues to be legally responsible to Parliament for all sections of the Act. However, for Sections 36 to 42, Environment Canada administers those aspects dealing with the control of pollutants affecting fish. The Department of Fisheries and Oceans will cooperate with Environment Canada in the establishment of federal priorities for the protection of fish and their habitats from deleterious substances.



## 2.2 The First Goal – Fish Habitat Conservation

*Maintain the current productive capacity of fish habitats supporting Canada's fisheries resources, such that fish suitable for human consumption may be produced.*

### Interpretation

1. The level of protection given to habitats under this goal will take into consideration their actual or potential contribution to sustaining the nation's fisheries resources, as defined in this policy, and in accordance with local fisheries management objectives, as described in Section 3.3.
2. Where there is a risk of potential damage to habitat, the Department will strive to prevent losses of natural fish production areas, in order to produce fish in perpetuity and to help maintain genetic diversity. This will contribute to the Department's fish production goals and reduce the costs associated with constructing and maintaining fish production facilities, and restoring damaged habitats.
3. In accordance with the Protection and Compliance Strategy explained in Chapter 4, the habitat provisions of the Fisheries Act will be administered and enforced to control the negative impacts of existing and proposed projects and activities that have a potential to alter, disrupt and destroy habitats. Sections 36 to 42 of the Act contain specific powers to control the release of deleterious substances into fish habitats and is administered by Environment Canada, in cooperation with Fisheries and Oceans, frequently in close collaboration with provinces.
4. There are limitations respecting the use of the Fisheries Act to control widespread activities on an ecosystem-wide basis, such as land use developments and the release of air pollutants. Notwithstanding these limitations, the Department will continue to cooperate with other agencies and other levels of government in an effort to implement integrated resource management procedures on an ecosystem basis.
5. In its efforts to control ocean pollution and the chemical contamination of fish and fish habitats, Fisheries and Oceans will continue to cooperate with and provide criteria for fisheries protection to provinces,

territories and a number of federal departments, including Agriculture Canada, Environment Canada, Transport Canada, Energy, Mines and Resources, External Affairs, Indian and Northern Affairs, and the Canada Oil and Gas Lands Administration.

6. The Department will cooperate with and encourage provinces, territories and other land owners and managers, to identify unique and productive habitat areas and to include them within a network of protected areas for the production of fisheries and other natural resources. For marine areas, the Department will also consider taking direct action to establish sanctuaries for the preservation of living marine resources and associated habitats, consistent with fisheries management objectives and emerging federal government objectives for arctic marine conservation. The Department will also cooperate with and support conservation organizations in the promotion and establishment of protected areas consistent with this policy.
7. The conservation goal will be implemented using the no net loss guiding principle, as described in the next section.

## **2.2.1 The Guiding Principle - No Net Loss of the Productive Capacity of Habitats**

### **Interpretation**

1. The no net loss principle is fundamental to the habitat conservation goal. Under this principle, the Department will strive to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that further reductions to Canada's fisheries resources due to habitat loss or damage may be prevented.
2. The principle applies to proposed works and undertakings and it will not be applied retroactively to approved or completed projects.
3. The principle is intended to guide departmental officials and other interested parties, and should not be interpreted as a statutory requirement to be met at all costs and in all circumstances. Professional judgement and common sense applied in an informed, cooperative environment by personnel experienced in habitat management, combined with supportive research, will achieve no net loss of productive capacity in the majority of cases.
4. The principle takes into consideration the habitat requirements of fish, in the context of site-specific evaluations, in order to avoid losses of habitats or habitat components that can limit the production of fisheries resources.
5. The principle may be applied on either a fish stock-specific basis, or on a geographic area basis, depending on how particular fisheries are managed and harvested. In cases where a mixture of stocks is fished, stock-specific application of the principle is important, for example, with most anadromous salmon. If the affected fish stocks and habitats are adjacent to Native communities, it will be important that any habitat replacement be undertaken in the immediate area to avoid any negative effects on Native fishing rights. In other circumstances, such as for resident freshwater species, the principle may be applied on a broader, geographic area basis, rather than on stock-specific management. Local fish habitat management plans, where available, will guide the application of the principle in specific cases.
6. Through the hierarchy of preferences and other procedures explained in Chapter 5, the principle offers flexibility in the search for solutions by both fisheries managers and the proponents of works and undertakings that may threaten fish habitats.
7. In addition to its application to physical disruptions, the principle will apply to proposed industrial and municipal liquid waste discharges that could degrade water quality and the productive capacity of fish habitats. This will be accomplished by careful site selection, combined with mitigation measures that

incorporate best practicable technology, to avoid and control adverse effects. Compensation-in-kind is not a feasible option in cases involving liquid waste discharges.

8. Various other techniques, including those used to restore and develop habitat, may be employed by proponents to achieve no net loss and the conservation goal. In cases where the productive capacity of habitats is very high, no loss of habitat and no degradation of water quality will be permitted, in accordance with the local fish habitat management plan, wherever available.

### **2.3 Second Goal - Fish Habitat Restoration**

*Rehabilitate the productive capacity of fish habitats in selected areas where economic or social benefits can be achieved through the fisheries resource.*

#### **Interpretation**

1. The productive capacity of habitat may be increased by the restoration of damaged fish habitats. This will complement the preventive approach provided for in the conservation goal and will contribute to the achievement of net gain of habitat for the nation's fisheries resources.
2. The biological components and chemical quality of water will be restored and physically disrupted habitats will be repaired, as described in the implementation strategy on habitat improvement.
3. This goal requires the continuing support of scientific research to discover and test new methods for restoring the productive capacity of fish habitats.

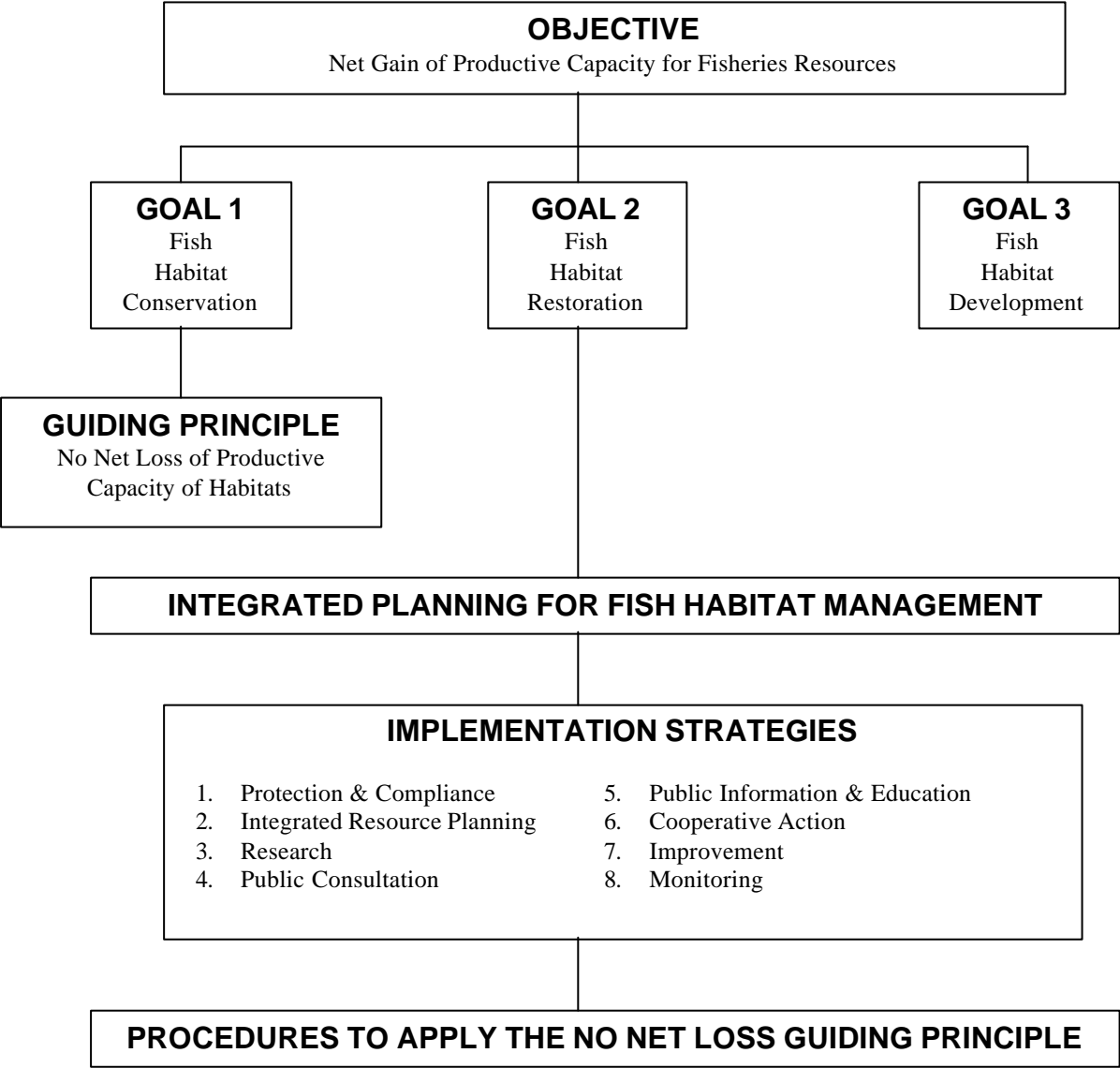
### **2.4 Third Goal - Fish Habitat Development**

*Improve and create fish habitats in selected areas where the production of fisheries resources can be increased for the social or economic benefit of Canadians.*

#### **Interpretation**

1. The productive capacity of habitats may be increased by manipulating naturally occurring chemical, physical, and biological factors, and creating, or providing access to, new spawning, rearing and food producing areas.
2. The objective of this goal is to generate national and regional economic and social benefits for Canadians, and to assist in achieving a net gain of habitat for fisheries resources.
3. This goal requires the continuing support of scientific research to discover and test new methods for increasing the productive capacity of fish habitats.

FIGURE 1: POLICY FRAMEWORK FOR FISH HABITAT MANAGEMENT



# CHAPTER 3

## INTEGRATED PLANNING FOR FISH HABITAT MANAGEMENT

### 3.1 Introduction

The net gain objective and three supporting goals of this policy are being implemented by a series of strategies that are outlined in the following chapter. In addition to this, improved integration is needed to ensure that the fish habitat plans are implemented with sufficient knowledge of the current and future demands of other natural resource users. This can be accomplished by utilizing existing processes and continuing to develop regularized procedures as required, in close cooperation with provinces, territories and other sectors engaged in resource utilization and management, to consult and plan for future resource management and use.

Furthermore, it will not be sufficient to proceed with policy implementation without fully integrating fish habitat requirements with management objectives for the fisheries resources. This will allow meaningful priorities to be established and will lead to more credible delivery of all elements of the fisheries management program

This chapter outlines the conceptual approaches that must be tested, implemented and further developed to allow for the fuller integration of fish habitat management in multiple resource management decisions.

### 3.2 Integration with Other Resource Sector Objectives

The Department recognizes that natural resource interests such as the forest, fishing, mining, energy, and agricultural sectors make legitimate demands on water resources, and that ways must be found to reconcile differences of opinion on the best use of those resources. Effective integration of resource sector objectives, including fisheries, will therefore involve cooperation and consultation with other government agencies and natural resource users. For example, fish habitat management plans on a local or regional basis should be developed in such a way as to allow discussion with other stakeholders. In particular, in those jurisdictions where the Department of Fisheries and Oceans manages fisheries directly, the Department will seek ways to participate in the resource planning and management initiatives of provincial, territorial and municipal governments, other federal departments and other resource users where applicable. In other jurisdictions, integrated planning activities will be consistent with any federal-provincial administrative agreement for habitat management. Examples of initiatives in which the Department has been involved in recent years include (a) planning for multiple land and water use in a number of west coast estuaries and in the Nicola River Basin in British Columbia; (b) planning for port development on the east and west coasts; (c) planning for resource use in Passamoquoddy Bay, New Brunswick; (d) preparation for Northern Land Use Planning in the territories; and (e) implementation of coastal fisheries/forestry guidelines in British Columbia.

In this way, and in keeping with the integrated resource planning strategy described in the next chapter, fish habitat management plans will be reviewed and discussed, and, where possible, integrated with the objectives and plans of other resource managers and users.

### 3.3 Integration of Habitat Needs with Fish Management Objectives

The essential step of integrating various fish habitat requirements with the fisheries resources they support, must be undertaken and made available in a form that is understood by officials within Fisheries and Oceans, as well as by other agencies and non-government groups. The Department has explored the conceptual basis for this integration and has concluded that fish habitat management area plans or fish habitat/stock production plans, or the equivalent, should be developed to guide the implementation of this policy.

These plans would be relatively straightforward to implement if fish stock production objectives and allocation plans were available for all of the nation's important fisheries resources. While this information is commonly available



from the responsible fisheries agency, or can be developed by that agency, it is not always possible for fisheries managers to either identify discrete fish stocks for allocation purposes or to quantify production targets for stocks and geographic areas.



Given the above factors, the integration of fish habitat requirements with fisheries management objectives to reflect the important supporting role played by the habitat program could be developed in a variety of ways. The method used will depend on the information available on fish production from particular areas and on the complexity of fish harvesting for mixed stocks. If both the stocks and the fisheries are discrete, it should be possible to derive production targets on which to base habitat management plans that would support the maintenance and growth of those fisheries in particular areas.

A different approach will have to be taken where the fish produced in particular areas contribute to a mixed-stock fishery. In such instances, where stock-specific fish production targets cannot be provided by fisheries managers, estimates of those targets may be based on habitat availability, its quality, any competing pre-emptive uses and historic fish production levels. This will form the basis for the fish habitat management plan for that geographic area.

The plans developed in this way will be used to define those priority areas where this habitat policy will apply and to assist the Department in its efforts to measure program performance. In addition, the habitat management plans will be used as the basis for discussion with other resource managers and users, during the integration process described in the preceding section.

# CHAPTER 4

## IMPLEMENTATION STRATEGIES

### **4.1 First Strategy - Protection And Compliance**

*Protect fish habitats by administering the Fisheries Act and incorporating fish habitat protection requirements into land and water use activities and projects.*

#### **General Interpretation**

1. The procedures for implementing the no net loss guiding principle, as described in Chapter 5, will be used as an integral part of this strategy to deal with proposed works and undertakings that could affect the fisheries. In addition, existing habitat problems will be addressed under this strategy.
2. The Department will ensure a uniform and equitable level of compliance with statutes, regulations and policies, as necessary to manage and protect fish habitats in jurisdictions where the federal government manages fisheries. The Fisheries Act contains powers to deal with damage to fish habitat, destruction of fish, obstruction of fish passage, necessary flow requirements for fish, the screening of water intakes and the control of deleterious substances. Potential adverse effects on fish habitats are frequently avoided by modifying the plans, designs and operating procedures for projects and activities, and by incorporating mitigation and compensatory measures.
3. The Department will, through collaboration with Environment Canada and the Department of Indian and Northern Affairs where appropriate, provide timely advice and specific requirements to any person, company or agency engaged in or responsible for work in or near the water, in an effort to control the potential adverse effects on fish habitats of liquid effluent discharges, water withdrawals, physical disturbances, non-point- sources of chemical pollutants such as pesticides, other environmental contaminants, and the introduction of exotic species, predators, parasites and competitors.
4. In jurisdictions where Fisheries and Oceans manages the fisheries and in recognition of the need to avoid cumulative habitat losses caused by small projects, the Department will participate with the provinces, territories and other federal departments in reviewing plans for activities regulated by other levels of government or other departments, in an effort to resolve, through inter-agency cooperation, potential resource conflicts involving fish habitat. In the course of such participation and consultation, while the Department will be prepared to use the habitat provisions of the Fisheries Act, it will also be prepared, as a first preference, to agree to solutions involving the use of other federal or provincial legislation, particularly when another agency is acting as the lead, and provided the solutions are consistent with the requirements of the Act and this policy.
5. The Department will work closely with Environment Canada in the administration of Sections 36 to 42 of the Fisheries Act, to control effluent discharges and maintain receiving water quality for the fisheries resource. In accordance with the Memorandum of Understanding between the two Departments, Fisheries and Oceans will collaborate with Environment Canada and the provinces and territories in identifying fisheries protection requirements. With respect to administration of Sections 20, 35 and other sections of the Act, where aspects of a project involve physical activities that could potentially disrupt fish habitat, the Department will work directly with the proponent, and will provide advice and input to referrals and permits managed by the provinces, territories or other federal agencies.

## Proponent Responsibilities

1. Pursuant to Section 37(1) of the Fisheries Act, proponents may be asked by the Minister of Fisheries and Oceans or his officials, to provide a statement of information so that the Department can assess the potential impact of existing or proposed works and undertakings on the fisheries resource. Usually such requests would apply to major projects, as defined in this document. The statement may include project-specific information on the resource in question, its supporting habitat and baseline fisheries information required to assess the potential impact of a proposed project. The terms of reference for such information statements should be developed by the proponent, in consultation with professional and technical staff of Fisheries and Oceans. To avoid delays in the assessment of projects, proponents should provide these statements on a timely basis.
2. Proponents may use the results and data of departmental scientific studies on fisheries and oceans to supplement their project-specific assessments.
3. The cost of mitigating any anticipated damages, and for implementing compensation measures and facilities designed to avoid losses of fish habitat and reductions in the supply of fish, will be the responsibility of proponents. Proponents will also be responsible for the costs of operation and maintenance of any such facilities.
4. The costs to government of activities undertaken to clean up spills of oil and other pollutants will be recovered, under Section 42 of the Act, from the person(s) who caused the damage, or from special financial security instruments pursuant to the Oil and Gas Production and Conservation Act.



## Major Project Review Procedures

1. The Department will conduct detailed reviews, frequently and preferably as a participant in a provincial or federal environmental review process, of major proposed industrial undertakings that could potentially harm habitats supporting the fisheries resources.
2. The Department recognizes the importance of timely approvals in the context of minimizing costs, assisting economic growth and providing new employment opportunities. In addition, the Department frequently collaborates closely with officials in other government agencies to discuss findings and review courses of action.
3. For major development projects, a senior level Habitat Policy Steering Committee chaired by an Assistant Deputy Minister of Fisheries and Oceans will provide overall guidance and direction respecting the Department's actions by:
  - (a) ensuring the consistent application of departmental and government policy;
  - (b) consulting as required with project proponents, senior representatives of other government agencies and other interested parties;

- (c) receiving reports, briefings and draft departmental position statements from the Regional Project Committee; and
  - (d) recommending approvals, restrictions and prohibitions to the Deputy Minister and arranging for delivery of the departmental position to the proponent.
4. A Regional Project Committee reporting through the Regional Director-General to the Habitat Policy Steering Committee will be formed by the Department for each major project to carry out the following:
- (a) establish contact at the management and working level with the proponent and with officials of other departments and levels of government;
  - (b) outline the Department's technical information requirements;
  - (c) review project assessments and environmental control proposals;
  - (d) prepare deficiency statements;
  - (e) provide conclusions and recommendations on habitat management considerations of the project to the Habitat Policy Steering Committee;
  - (f) prepare draft departmental position statements for transmittal to the Habitat Policy Steering Committee;
  - (g) present information and represent the Department at hearings and inquiries; and
  - (h) carry out follow-up work as required.

### **Enforcement**

1. The Department prefers to prevent damage to habitat and avoid losses to the fisheries resource, rather than to take court action against offenders after the fact. However, when voluntary compliance fails to produce the desired objective, and the Fisheries Act is contravened and the habitats supporting fisheries resources are altered, destroyed or degraded, enforcement officers of the Department will carry out enforcement action.
2. Except in emergency situations where immediate, on-the-spot enforcement action is required, enforcement officers will, in the interest of fair treatment, make every reasonable effort to consult with the person or persons involved including other regulatory agencies, before enforcement action is taken, in order to obtain as much information as possible about alleged incidents.
3. The Governor-in-Council may make formal orders under Section 37(2) to modify, restrict or close works or undertakings. Before recommending such action, however, the Minister of Fisheries and Oceans shall offer to consult with his colleague, the Minister of the Environment, for cases involving deleterious substances, and offer to consult with other federal departments and with the government of any province or territory that may be affected.
4. In critical situations where a violation is observed, and the offending party refuses to discontinue the action causing the violation, the equipment used in the commission of the offence may be seized, pursuant to Section 51 of the Act.
5. Officials of the Department will investigate fish kills, frequently in collaboration with officials of Environment agencies, and, where possible, ensure that action is taken to initiate mitigative measures and to eliminate the source of the problem. Alleged violators of the Act will be prosecuted when the evidence warrants.
6. Pursuant to the Memorandum of Understanding between Fisheries and Oceans and Environment Canada on the pollution control provisions of the Act, regional working agreements between the two Departments provide for coordinated enforcement of Section 36(3) violations.
7. In the event that discharges of deleterious substances are detected that present an immediate threat to fisheries, and no other government agency has initiated action, officials of Fisheries and Oceans will intervene directly by contacting the proponent and immediately advising appropriate regulatory agencies on required actions. Where necessary, the prohibition powers of Sections 36 and 79(2) will be used to stop the

discharge as quickly as possible and to arrange for clean-up, if feasible. The Department will proceed with legal charges if the evidence warrants.

8. In situations where the Department becomes aware of a violation or potential violation that presents irreparable harm to fisheries resources, a court injunction may be requested under Section 41(4) to halt the work or undertaking.
9. Private citizens may initiate prosecutions under the habitat provisions of the Act. The Department will examine the circumstances surrounding each litigation and make recommendations to the Department of Justice concerning the public interest and the technical relevance of the case to the habitat provisions of the Act.
10. In cases where the courts have ruled a defendant guilty and where the damage to fish habitat can be corrected or remedied, officials of the Department or the Crown prosecutor may speak to sentence, urging the court to order restorative action.

### **Training and Guidelines**

1. Training programs to explain the technical and policy aspects of habitat management are provided for enforcement officers whose responsibilities include habitat management. Professional and technical habitat staff of the Department will continue to be offered training in subjects such as habitat evaluation procedures, no net loss procedures, and integrated resource planning, including instruction on the activities of other resource industries such as forestry and mining.
2. As part of its implementation of this policy, Fisheries and Oceans will expand the preparation and publication of guidelines and procedures, in an effort to improve the Department's ability to administer the habitat provisions of the Fisheries Act, and to provide for consistent national application. Guidelines are currently available in some regions of Canada for subjects such as road construction, dredging and forestry, among others. National guidelines exist for various regulations under the Act, including pulp and paper, oil refining, metal mining and food processing. The following additional national guidelines are being prepared:
  - (a) A Procedural Guide to Achieving no net loss.
  - (b) Restoration and Development Guidelines.

### **4.2 Second Strategy - Integrated Resource Planning**

*Participate in and encourage resource planning and management to incorporate fish habitat priorities into air, land and water use plans.*

#### **Interpretation**

1. Where it is responsible for managing the fisheries resource, the Department will seek opportunities to resolve multiple resource use conflicts affecting the fisheries by participating in resource planning and management with provincial, territorial and municipal governments, other federal government agencies and other resource users (where applicable), and by recognizing the mandate and objectives of all participants.
2. The Department will plan for the conservation, restoration and development of the fisheries resource and its supporting habitat, in support of its fisheries management objectives.
3. The Department is prepared to seek ways to accommodate the concerns of other resource interests, wherever feasible.

4. The Department is prepared to enter into agreements with provincial, territorial, municipal and other federal agencies to achieve mutually agreeable resource planning and management objectives and to carry out joint programs such as the development of habitat inventories.

#### **4.3 Third Strategy - Scientific Research**

*Conduct scientific research to provide the information and technology necessary for the conservation, restoration and development of fish habitats.*

##### **Interpretation**

1. The Department will continue to carry out a broad program of basic scientific research on Canada's fisheries, part of which will be directed toward providing the knowledge, data and information required to:
  - (a) assess the relative importance of specific habitats as a factor contributing to fish production;
  - (b) assess the effects of human-induced chemical, physical and biological changes on fisheries resources and the habitats that support them;
  - (c) determine how adverse effects on fish habitat may be mitigated and establish criteria for the continued natural production and safe consumption of fish;
  - (d) develop and refine techniques to restore degraded and develop new habitats;
  - (e) refine our understanding of the factors that control the productive capacity of natural habitats and how to measure those factors; and
  - (f) develop improved methods of evaluating the economic and social worth of fish habitats.
2. The Department will encourage and participate in cooperative habitat-related research programs with other federal government departments, provincial and territorial agencies, and industry groups and associations to improve knowledge in areas of common interest, such as instream flow requirements, fish passage problems, chemical or biological contamination problems, forestry and energy developments.
3. The Department will continue to participate in and cooperate with international scientific organizations whose mandate relates to fisheries and the aquatic environment.
4. Habitat-related research priorities of the Department will be established through consultative arrangements with fishery managers, habitat managers, and where appropriate, industrial interests, government agencies, and the general public.
5. The Department's habitat-related research findings will be made public and reported in scientific and technical publications, and through a variety of public forums.



#### **4.4 Fourth Strategy -Public Consultation**

*Consult the public on major or controversial fish habitat issues and on the development of new policies and legislation for fish habitat management.*

##### **Interpretation**

1. Of the thousands of projects and activities examined by Fisheries and Oceans across Canada each year, few will constitute a sufficiently high risk to fisheries or be of such high public concern as to require any special process for public consultation, other than normal consultation with the proponent and any other interested parties.
2. Where it is determined by the Minister that an issue requires formal public consultation, the Department's first preference will be to participate fully in the established review procedures of other federal departments or provincial governments, for example, Environment or Energy agencies, provided the terms of reference for the review are satisfactory to the Minister.
3. In cases where other established public review processes would not normally apply to a project, and the Minister of Fisheries and Oceans determines that one is required for his purposes, he may initiate such a process. For this purpose, the following options will be considered in order of preference (a) joint sponsorship of an independent public review with another Minister, federal or provincial; or (b) a federal independent public review under the Inquiries Act.
4. The Minister will consider all views expressed in arriving at a decision.

#### **4.5 Fifth Strategy - Public Information and Education**

*Promote public awareness in the conservation, restoration and development of fish habitats.*

##### **Interpretation**

1. Strong public sentiment in support of habitat conservation, restoration and development will reduce the likelihood that habitat abuse will occur.
2. The Department will foster increased public awareness of the importance of fish habitat and the threats to it by continuing to publish and distribute balanced and objective information material and technical guidelines; to produce videos and other education materials for use by the media and the public, particularly in schools; and to sponsor conferences, seminars, workshops and symposia.
3. The Department will cooperate with private organizations to encourage distribution of interpretive material on fish habitat management and to promote habitat awareness.



#### **4.6 Sixth Strategy - Cooperative Action**

*Encourage and support involvement by government agencies, public interest groups and the private sector to conserve, restore and develop fish habitats.*

##### **Interpretation**

1. Community involvement in habitat-related activities will be encouraged so as to instill positive attitudes and local pride in the fisheries resource and its habitat, and to raise the level of understanding about the complex relationship between the resource and its supporting habitats. Employment and economic benefits can also be realized by involving local communities in habitat-related work.
2. The Department will, through inter-agency cooperative arrangements, participate in project referral systems and in established environmental and energy assessment and review procedures for the evaluation of projects and to support the habitat conservation goal.
3. The implementation of the objective and goals of this policy will be assisted by the development of cooperative arrangements, such as national or regional committees, foundations or boards involving industry, other non-government groups, other government agencies and departmental representatives.
4. The Department will encourage the development of approaches whereby interested companies and associations would use their own staff to protect fish habitat, in accordance with departmental guidelines and fish habitat management plans, and subject to departmental surveillance and audit.

#### **4.7 Seventh Strategy - Habitat Improvement**

*Initiate projects and provide advice to other interested groups to restore and develop fish habitats, in support of the net gain objective.*

##### **Interpretation**

1. Under this strategy, habitats may be restored by rehabilitating streams; by eliminating or controlling exotic species, predators, parasites, and competitors; by removing man-made and storm-related physical barriers and other initiatives; and, in cooperation with Environment Canada, requiring the installation and operation of suitable waste treatment technology.



2. The Department will support habitat restoration and development projects using departmental and other federal government funds, when such funds are available, and where resulting economic and employment benefits can be achieved through the fisheries resource.
3. Where it manages the fisheries directly, the Department will provide advice and guidance to community and conservation groups that wish to undertake habitat restoration and development projects; financial support also may be provided, depending on the availability of public funds for this purpose.



#### **4.8 Eighth Strategy – Habitat Monitoring**

*Evaluate the effectiveness of decisions taken and techniques used to conserve, restore and develop fish habitats.*

##### **Interpretation**

1. Recognizing limitations in the ability to predict changes to fish habitats arising from proposed actions, the Department aims to monitor the effects, both during and, for a prescribed period, after development. In this way the effectiveness of departmentally prescribed conditions of approval, intended to maintain the productive capacity of fish habitats, would be evaluated and new knowledge acquired.
2. Proponents may be required to undertake follow-up monitoring studies on the effectiveness of habitat mitigation and compensation prescriptions as a condition of project approval by the Department, and subject to prior discussion and agreement with the proponent on the scope and schedule for monitoring.
3. The results of monitoring studies will be used by the Department as a basis for discussion with proponents, on the possible need for improvements in mitigation and compensation measures, immediately or as soon as practical after the facility or activity commences operations. The Department will identify, as a condition of approval, the possible need for follow-up corrective actions by proponents.
4. Studies designed to detect chemical hazard problems, to determine baseline conditions and the effects of change, and to establish environmental trends, may be undertaken by the Department as part of its in-house programs of scientific research, inventory and other investigations, such as those on the effects of acid rain.
5. The Department will address the problems associated with the chemical contamination of fish habitat and fisheries resources through the examination of inventory information on chemicals in use or proposed for use. Samples of fish, other aquatic biota, water and sediments will be analyzed to determine levels of specific chemicals and their by-products.

6. The Department will carry out project-related evaluations and effects monitoring on a selected basis, in support of the policy goals of habitat conservation, restoration and development.
7. The Department will consult with Environment Canada respecting that agency's compliance monitoring plans.

# CHAPTER 5

## PROCEDURES TO APPLY THE NO NET LOSS PRINCIPLE

The guiding principle of no net loss signals a renewed effort by the Department of Fisheries and Oceans to ensure that the social and economic benefits, generated for Canadians by the productive capacity of fish habitats and the fisheries resources they support, are maintained over time. Application of the guiding principle would not mean that all proposed works and undertakings in or near water would have to be stopped, or that unreasonable demands would be imposed on their design, construction and operation. For example, liquid wastes would continue to be discharged into Canada's fisheries waters after suitable treatment to control harmful effects; marinas and port developments would proceed using acceptable locations and designs; and mineral exploitation and many land and water use practices would take place under environmental controls designed to protect fish habitats. As a matter of good practice however, each development, whether major or minor, will be evaluated in the planning phase, using an existing process when possible, to determine if its impact on fish habitat would reduce the capability of that habitat to sustain fisheries resources. Should it be determined that the proposed development would result in a loss of productive fish habitat, the Department would review the measures required to achieve no net loss, pursuant to the hierarchy of preferences as follows.

### 5.1 Hierarchy of Preferences

Fisheries management objectives and plans, where available, will be a major consideration for the Department in deciding where to apply this guiding principle and what offsetting proposals would be acceptable to achieve no net loss. For example, in some circumstances it may be possible for the Department to meet its management objectives by applying the principle on a fish stock-specific basis. The preferences that follow refer to those circumstances. In other cases, such as for the management of species that are resident in lakes, the principle may be applied on the basis of achieving no net loss within a geographic area, as described in paragraph five of Section 2.2.1.

When the fishery resource and its supporting habitat are put at risk by a proposed development project or activity, the Department will be guided by the following hierarchy of preferences to achieve no net loss of productive capacity.

1. For the application of the no net loss principle, the first preference of the Department will be to maintain without disruption the natural productive capacity of the habitat(s) in question by avoiding any loss or harmful alteration at the site of the proposed project or activity. This will be especially important where local communities rely on specific fisheries stocks. It may be achieved by encouraging the proponent to redesign the project, to select an alternate site, or to mitigate potential damages using other reliable techniques, such as by installing adequate pollution control equipment.
2. Only after it proves impossible or impractical to maintain the same level of habitat productive capacity using the approaches outlined above would the Department accede to the exploration of compensatory options. First of all, the possibilities for like-for-like compensation should be assessed; that is replacing natural habitat at or near the site. Should this not be feasible, then secondly it might be possible to consider either moving off-site with the replacement habitat, or increasing the productivity of existing habitat for the affected stock, if reliable techniques are available. Compensation options will not be possible as a means of dealing with chemical pollution and contamination problems; reliable control techniques must be installed and operated to mitigate such problems from the outset.
3. In those rare cases where it is not technically feasible to avoid potential damage to habitats, or to compensate for the habitat itself, the Department would consider proposals to compensate in the form of artificial production to supplement the fishery resource, provided the following conditions are met:

- (a) such a solution will be in accordance with the objectives established in the local fisheries management plan, assuming one is available;
  - (b) genetic and other biological factors are satisfied; and,
  - (c) practical and proven techniques are available.
4. The costs associated with providing facilities or undertaking measures to mitigate and compensate for potential damages to the fisheries resource will be the responsibility of proponents, as will the costs to operate and maintain such facilities.

## 5.2 Procedural Steps for No Net Loss

To apply the no net loss guiding principle and achieve the habitat conservation goal, the Department will, through inter-agency cooperative arrangements, use established project referral systems and environmental and energy assessment and review procedures, wherever possible. The Department will generally conduct its reviews in accordance with the following six steps (Figure 2), recognizing that more time and effort will be required to complete Steps II, III and V for larger projects.

**Step I - Notification:** Information and requests for departmental approval of works or undertakings in or near the water will come to the attention of the Department in the following ways: (a) through established interagency referral systems, (b) inquiries from the proponent, (c) inquiries from concerned citizens, (d) public announcement of the project and (e) in response to requests from the Department of Fisheries and Oceans to proponents for information about their projects. The majority of notifications come to the Department's attention through inter-agency referral mechanisms. These mechanisms have proved to be very effective in the past and the Department intends to continue using them.

**Step II - Examination:** Once information on a proposal is received, the Department undertakes an examination of the potential implications of the work or undertaking to the fisheries resource. For chemical hazards, information is needed on the physico-chemical properties of the suspect chemical and its by-products, its toxicity and pathology to fish, and the routes and rates of entry into the natural environment. For minor projects involving physical activities (e.g., salmon stream crossings) which disrupt important fish habitat, Fishery Officers and fish habitat management staff will assist operators to the extent feasible in identifying the biological impacts of the work or undertaking and will make a biological assessment of the requirements necessary to meet fisheries operational objectives. For major projects, obtaining and presenting relevant information on the project or the chemical compounds involved, and on the fish habitat that is likely to be affected, is the responsibility of the proponent under Section 37(1) of the Act. This step will take varying amounts of time to complete, depending on the size of the project, and it will be in the interest of proponents to provide assessments on a timely basis. Staff of the Department will assess the information obtained and if necessary visit the site and undertake studies to complete their assessments. As part of the examination step, the hierarchy of preferences (outlined in Section 5.1 of this chapter) will be used to guide both the Department and proponents; the amount of detail and time required will depend again on the size of the work or undertaking, and its potential impact on fish habitats.

**Step III - Public Consultation:** The Department recognizes the need to provide opportunities for public review and input to decisions on developments that have broad social, economic or environmental implications. More information on the Department's approach to public consultation may be found in Section 4.4 of this policy.

In the case of major development projects, where avoidance of habitat loss or damage is not feasible, and where mitigation and compensation measures cannot be implemented to fully avoid losses to the productive capacity of habitats, and particularly where special regulations to allow the project to proceed are contemplated under the Fisheries Act, no decision to proceed with the project in question will be taken by the Minister of Fisheries and Oceans without public consultation and a thorough review and assessment of all factors.

**FIGURE 2: PROCEDURAL STEPS TO ACHIEVE NO NET LOSS**

**STEP I**

Notification by proponent & governmental sources

**INFORMATION RECEIVED ON PROJECT**

**ASSESS POTENTIAL IMPACT ON FISHERIES & HABITAT**

**ADDITIONAL INFORMATION**  
(if required)  
(Section 37(1))

**ASSESS ALTERNATIVE SITING OR OTHER OPTIONS & DISCUSS WITH PROPONENT**

**ASSESS MITIGATION OPTIONS**

**ASSESS COMPENSATION OPTIONS**  
(if compensation determined feasible)

**STEP II**

Examination by Fisheries & Oceans, often in consultation with other agencies

**CONSULT WITH PUBLIC & OTHER GOVERNMENT AGENCIES**

**CONSULT WITH PROPONENT & INTERESTED PARTIES**

**STEP III**

Consultation

**PROCEED AS PROPOSED**

**PROCEED WITH CONDITIONS**

**REJECT PROPOSAL**

**STEP IV**

Decision

**APPEAL**

**STEP V**

Audit

**MONITOR COMPLIANCE & EFFECTIVENESS**

**STEP VI**

Enforcement

**PROBLEM CORRECTION/PROSECUTION (if required)**

**Step IV - Decision:** Following its examination of the proposed work or undertaking and the results of any public consultation, the Department will decide whether the project is likely to result in a net loss of productive habitat capacity. If a loss is likely, the Department will then have to decide if the proponent's plans to mitigate and compensate are acceptable. In cases involving chemical hazards, adverse effects must be controlled by mitigation measures to avoid potential damage to the productive capacity of fish habitats. For those cases, compensation in-kind is not an acceptable option.

The Department will give due consideration to the economic benefits and costs associated with the development of alternative solutions to achieve no net loss of productive capacity.

Depending on the outcome of the Department's deliberations, it could decide directly, or through a recommendation to the Minister in cases involving major development projects; as follows:

- (a) to permit the proposal to proceed as proposed (no harm expected to the productive capacity of fish habitat);
- (b) to permit the proposal to proceed with fixed conditions (often with respect to schedule, methods, equipment, environmental control and mitigation measures, compensation, follow-up monitoring, possible need for corrective adjustments by proponent after start-up, the training of company personnel, and other conditions); or
- (c) to reject the proposal (potential losses to the fisheries judged unacceptable).

Any changes to the original conditions of approval will be negotiated between the Department and the proponent.

In cases where the Department has to advise a proponent that the work or undertaking is unacceptable, the Department will present information to support the following conclusions:

- (a) that despite the best efforts to control adverse effects, unacceptable net loss of habitat will take place if the project proceeds;
- (b) that this potential loss of habitat will cause demonstrable harm to fisheries resources; or
- (c) that there is an unacceptable level of uncertainty involved in forecasting the potential effects on fish habitats and the fisheries resources.

### **Appeals**

1. Should any person feel aggrieved by a habitat related decision made by departmental staff, that person may at any time request a review of the decision by senior management levels within the Department, including Regional Directors-General, the Deputy Minister or by the Minister of Fisheries and Oceans.
2. Should any proponent or interested party feel aggrieved by the decision-making process an appeal may be made to senior management levels within the Department or to the Minister.
3. In the event of an unresolved dispute regarding a major development project, the Minister may agree to refer the project to an independent body or panel for study and recommendations.

**Step V - Audit:** As explained in Section 4.8 of this policy, compliance monitoring and effectiveness evaluation are important components of habitat management policy.

**Step VI - Enforcement:** The Department will enforce the legislation for which the Minister of Fisheries and Oceans is accountable, using trained personnel, as explained in Section 4.1.

## ANNEX: THE LEGISLATIVE MANDATE

Under the *Constitution Act* (1982), the federal government has legislative responsibility for Canada's fisheries. The Minister of Fisheries and Oceans has been assigned responsibility for sea coast and inland fisheries, marine science and administration of the *Fisheries Act*. A key component of the Minister's overall responsibility for fisheries management is the protection of fish and fish habitat from disruptive and destructive activities. Fisheries and oceanographic research provide, among their outputs, the knowledge required for sound fish habitat management.

The habitat protection provisions of the *Fisheries Act* provide the Minister of Fisheries and Oceans with the following powers (see the departmental publication of "Canada's Fish Habitat Law" for more information):

- Sections 20, 21 and 22:** The authority to require the construction, maintenance and operation of fish passage facilities at obstructions in rivers; to require financial support for fish hatchery establishments constructed and operated to maintain runs of migratory fish; to remove unused obstructions to fish passage; and to require a sufficient flow of water at all times below an obstruction for the safety of fish and the flooding of spawning grounds.
- Section 30:** The authority to require the installation and maintenance of screens or guards to prevent the passage of fish into water intakes, ditches, canals and channels.
- Section 32:** The authority to prohibit the destruction of fish by any means other than fishing.
- Section 37(2):** The authority to modify, restrict or prohibit any work or undertaking which is likely to result in the harmful alteration, disruption or destruction of fish habitat, a term that is defined in subsection 34(1) of the *Act*.
- Section 37:** Comprehensive powers to protect fish and fish habitat from the discharge of deleterious substances; to request plans for developments that may affect fish; to develop regulations; and to modify, restrict or prohibit certain works or undertakings.
- Other Sections:** Definitions, penalties and additional powers are provided in Sections 34(1), 35, 40, and 43, among others.

Fishery Regulations specific to provinces and territories are made pursuant to the *Fisheries Act*, and some of these contain habitat protection sections. The Department is also responsible for administration of the *Great Lakes Fisheries Convention Act*, which provides for Canada-U.S. rehabilitation of the Great Lakes.

# GLOSSARY

## **Canadian Fisheries Waters**

"All waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada." (*Fisheries Act*, sec. 2).

## **Compensation for Loss**

The replacement of natural habitat, increase in the productivity of existing habitat, or maintenance of fish production by artificial means in circumstances dictated by social and economic conditions, where mitigation techniques and other measures are not adequate to maintain habitats for Canada's fisheries resources.

## **Conservation (of habitats)**

The planned management of human activities that might affect fish habitats to prevent destruction and subsequent loss of fisheries benefits.

## **Development (of habitats)**

The creation of fish habitat and the enhancement or other improvement (such as flow regulation, nutrient modification, provision of access to spawning and rearing areas, etc.) applied to any type of fish habitat to provide better conditions for production and maintenance of the fisheries resource.

## **Fish**

"includes parts of fish, shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals." (*Fisheries Act*, sec. 2).

## **Fish Habitats**

"Spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes." (*Fisheries Act*, sec. 34(1)).

## **Fish Habitat Management Program**

Those activities, legislative responsibilities and policies administered by the Department of Fisheries and Oceans for the purpose of conserving, restoring and developing the productive capacity of habitats for the fisheries resources.

## **Fish Habitat Management Plan**

A plan prepared for a region or a specific geographic area of a region which includes an outline of the Department's requirements for conserving, restoring and developing fish habitat to meet fisheries stock production objectives and for use as the basis for consultation in integrated resource planning.



## **Fisheries Resources**

Fish stocks or populations that sustain commercial, recreational or Native fishing activities of benefit to Canadians.

## **Integrated Resource Planning**

The process whereby federal, provincial, territorial and municipal resource management agencies consult each other and private sector interests to plan for the future use of natural resources including forests, minerals, fish, land, water, wildlife and other resources.

## **Major Projects**

Those works, undertakings and activities that could potentially have, or be perceived to have, significant negative impacts on the habitats supporting Canada's important fisheries resources. Examples include: large-scale aerial biocide spraying of forest and agricultural lands; deep-draft marine terminals; hydroelectric dams and diversions; integrated mining operations; offshore oil and gas exploration and development; large industrial and municipal waste discharges; large pipelines, rail lines, roads and transmission lines; large forest harvesting operations; large dredging operations; and other similar projects.

## **Minor Projects**

Those works, undertakings and activities which would not normally have, or be perceived to have, serious irreversible biological effects that could not be mitigated on the habitats supporting Canada's fisheries resources. Examples include: most stream crossings, culvert installations, and other stream alterations; most wharf and breakwater construction and repairs; most individual forest harvesting operations; small dredging projects; small foreshore modifications; and other similar projects.

## **Mitigation**

Actions taken during the planning, design, construction and operation of works and undertakings to alleviate potential adverse effects on the productive capacity of fish habitats.

## **Net Gain**

An increase in the productive capacity of habitats for selected fisheries brought about by determined government and public efforts to conserve, restore and develop habitats.

## **No Net Loss**

A working principle by which the department strives to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that further reductions to Canada's fisheries resources due to habitat loss or damage may be prevented.

## **Productive Capacity**

The maximum natural capability of habitats to produce healthy fish, safe for human consumption, or to support or produce aquatic organisms upon which fish depend.

**Protection (of habitats)**

Prescribing guidelines and conditions, and enforcing laws for the purpose of preventing the harmful alteration, destruction or disruption of fish habitat.

**Restoration (of habitats)**

The treatment or clean-up of fish habitat that has been altered, disrupted or degraded for the purpose of increasing its capability to sustain a productive fisheries resource.

**APPENDIX E: SAMPLE APPLICATION FOR A WATERCOURSE,  
WETLAND AND BUFFER ZONE ACTIVITY PERMIT**



Communities, Land and Environment

# Application for Watercourse, Wetland and Buffer Zone Activity Permit

(Pursuant to Section 6 of the Environmental Protection Act Watercourse and Wetland Protection Regulations )

Send application to:

Watercourse/Wetland Alteration Supervisor  
Environment Division  
Communities, Land and Environment  
PO Box 2000, Charlottetown, PE C1A 7N8  
Tel: (902) 368 5052; Fax: (902) 368-5830  
**www.gov.pe.ca/environment**

Application No: \_\_\_\_\_

Personal information on this form is collected under section 6 of the Environmental Protection Act Watercourse and Wetland Protection Regulations as it relates directly to and is necessary for an application for a Watercourse, Wetland and Buffer Zone Activity Permit. If you have any questions about this collection of personal information, you may contact the Manager of Environmental Land Management, 11 Kent Street, 4<sup>th</sup> Floor Jones Building, Charlottetown, PEI, C1A 7N8, (902) 368-5274. Information collected on this form may be shared with third parties, including agencies of the federal government, for the purpose of technical review of the application and to ensure compliance with provincial and federal legislation.

1. Application Submitted by: \_\_\_\_\_

On behalf of:       Self       Department/Company/Individual       Other

Name of Department/Company/Individual: \_\_\_\_\_

Applicant's Address: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Applicant's Telephone Number(s): Home: \_\_\_\_\_ Work: \_\_\_\_\_ Cell: \_\_\_\_\_

Fax: \_\_\_\_\_ Email Address: \_\_\_\_\_

2. Location of Proposed Alteration:

Name of Watercourse: \_\_\_\_\_ Tributary to: \_\_\_\_\_

Community: \_\_\_\_\_ County: \_\_\_\_\_

3. Provincial Property Number(s): \_\_\_\_\_

\* Incomplete applications, which must include a property number(s) and map of location, will not be processed.

4. Type of Activity:

- Bridge Construction/Maintenance
- Culvert Installation/Maintenance
- Wetland Alteration
- Stream Enhancement
- Construct/Maintain Sediment Trap
- Tree Cutting/Landscaping in a Buffer Zone
- Other \_\_\_\_\_
- Wharf/Breakwater
- Construct a Slipway
- Shoreline Erosion Control
- Dredging
- Temporary Watercourse Crossing
- Operate Heavy Equipment or a Motor Vehicle
- Water Withdrawal
- Impoundment Maintenance
- Construct a By-Pass Pond

5. Description of proposed alteration (attach additional information as required). If this structure replaces an existing structure, give details of existing structure:

\_\_\_\_\_  
\_\_\_\_\_

6. Describe type and the method of construction (attach sketches or diagrams as required showing details of proposed construction). Illustrate methods of stabilization to be employed both during and following completion of construction (e.g., seeding, mulching, installing silt traps, etc.)

7. Desired Construction Period: From \_\_\_\_\_, \_\_\_\_\_, 20\_\_\_\_ To \_\_\_\_\_, \_\_\_\_\_, 20\_\_\_\_  
Day Month Day Month

NOTE: In-stream work should be completed during the period June 01 to September 30 in order to reduce potential damage to the environment. Requests for permit dates outside this time frame may be rejected or subject to intensive habitat protection measures.

8. Application Fee Enclosed (fee schedule below):      0 Yes      0 No (no fee required)      0 Renewal/Extension

**Please make cheques payable to the MINISTER OF FINANCE**

9. Declaration of Applicant:

As applicant, I hereby request a permit to commence, make or carry out the watercourse/wetland/buffer zone activity as described on this application form. It is understood that by submitting this application it does not allow the applicant to commence, make or carry out the alteration described herein.

It is understood that the issuance of a permit does not exempt the applicant from the provisions of any act of the Legislature of Prince Edward Island or the Parliament of Canada or any due process of law. It is acknowledged that the issuance of a permit does not serve to deprive any person of his or her rights either under statute or common law to claim damages for the loss or injury caused to his or her property by reason of the watercourse/wetland alteration. It is understood that the issuance of a permit places no liability upon the Minister of the Department of Communities, Land and Environment.

It is understood that for the purpose of application review, staff from the Department of Communities, Land and Environment at any reasonable time may enter the property as identified in sections 2 and 3 of this application.

If issued a permit, it is agreed that only such work as approved by the permit shall be carried out and all such work shall be done according to the permit and within the designated time frame so as to cause a minimum of disturbance to the watercourse/wetland/buffer zone.

As applicant, I have read and understood section 35 of the Environmental Protection Act that states, "Where contamination or damage of any kind is caused by failure of any person to comply with provisions of this Act or regulations and where the contamination or damage relates to a matter which in the opinion of the Minister requires immediate action to prevent further injury to the environment, the Minister may take the appropriate remedial action to clean up the contamination or damage." Any remedial action taken under section 35 may be at the cost of the applicant or the property owner.

Signature of Applicant: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Property Owner(s): \_\_\_\_\_

Date: \_\_\_\_\_

**The registered property owner(s) must sign this application.**

WATERCOURSE, WETLAND AND BUFFER ZONE ACTIVITY PERMIT APPLICATION FEE SCHEDULE

**Culvert & Clear Span Bridges**

- (a) installation, replacement, repairs and temporary crossings... \$100
- \*No charge for construction of pedestrian bridges

**Tree or Shrub Cutting in Buffer Zone**

- (a) for viewscape... \$100
- (b) for forest improvement or approved forest management practices... \$50
- \*No charge for cutting 4 or fewer trees or shrubs, or removal of trees posing a safety hazard

**Wharf Repairs or Construction**

- (a) when in-water works are required... \$100
- (b) when no in-water works are required... \$50

**Wetland & Watercourse Activities**

- (a) alteration... \$100
- (b) enhancement or maintenance... \$50
- (c) dredging... \$100

**Boardwalk Construction**

- (a) located in wetlands or sand dune... \$100
- (b) located in buffer zone... \$50

**Dams & Impoundments**

- (a) maintenance, repairs, drawdowns of man-made structures... \$100

**Beach & Shoreline**

- (a) relocation or removal of seaweed... \$100
- (b) shoreline protection/stabilization... \$100
- (c) stairway to beach... \$50
- (d) boat slipway construction or repairs... \$100
- \*No charge for collection/ removal of garbage or non-natural materials, or for installation/ removal of floating dock structures

**Activities Within a Buffer Zone**

- (a) landscaping & road construction in buffer zone... \$100
- \*No charge for re-seeding a buffer zone for agricultural purposes, or for grass headland exemption. No charge for notching or removal of beaver dams to reduce or prevent property damage.

**Other Activities**

- (a) other activities... \$50
- (b) renewal or extension... \$25

**Fee Exemptions apply to the following:**

- (a) holder of a valid Watercourse, Wetland, Buffer Zone Activity Certificate and valid Watercourse, Wetland, Buffer Zone Activity Business License issued under subsections 4(2) and 5(1) of the regulations and carrying out activity (s) identified in Schedule "A" of the regulations (licensed contractors);
- (b) watershed-based groups and community improvement groups;
- (c) provincial government departments, agencies or Crown corporations

**APPENDIX F: AGRICULTURAL IRRIGATION POLICY**

# AGRICULTURAL IRRIGATION POLICY

May 4, 1995

## A. BACKGROUND:

This policy statement makes reference to two sources of water; groundwater and surface water. For the purpose of this document groundwater is defined as water that naturally occurs beneath the surface of the ground and is normally extracted by pumping from water wells. Groundwater is frequently referred to as well water. Surface water is defined as that water which naturally occurs in streams, ponds, rivers or estuaries, that can be pumped directly.

### 1. GROUNDWATER:

- a) Groundwater is considered to be the most viable and sustainable source of water supply for agricultural irrigation purposes. Considering the Island's high rate of recharge to the water table and because extraction for irrigation is of a short term nature each year, at a limited number of locations, it is concluded that this water use would have a negligible impact on the local and regional groundwater reserves.
- b) The extraction of water from subsurface aquifers is controlled with authority provided by the Water Well Regulations made pursuant to the Environmental Protection Act. High capacity wells are not a new issue on Prince Edward Island and the assessment and management of our groundwater resources in relation to agricultural irrigation fit well within the existing process.
- c) Any impact assessment of high capacity wells will consider the potential for interference with other water uses in the area as well as the projected impacts on stream flow. Generally, the more water that is extracted from groundwater supplies, the less water is available for discharge to streams. Preliminary calculations indicate that the impact of irrigation wells located more than 100 metres from a stream would be insignificant. In a worst case situation, agricultural irrigation from groundwater sources could potentially reduce stream flow in the order of 5-8%. The further a well(s) is located from a stream, the less potential there is for impact on that stream, as the influence of the extraction on the water table is dispersed in both space and time.

- d) There will be additional costs associated with the construction and testing of groundwater production wells and equipping same with the appropriate pump to produce 300-400 IGPM. In some areas of the province, particularly in the western portion, it is unlikely that single well yields greater than 100-150 IGPM could be achieved. Lower yielding wells could be used in conjunction with water storage, however, this would add substantially to the cost.

## **2. SURFACE WATER:**

- a) The control of water withdrawal from surface water bodies is currently handled under the authority provided by Section 10 of the Environmental Protection Act. Prior to extracting water from any stream or river, a person must first obtain a Watercourse Alteration Permit (Water Withdrawal Permit). There have been a limited number of permits issued for this purpose in recent years; 2 in 1992, 5 in 1993 and 11 in 1994. The department has recently become aware that a number of farmers have pumped water from streams without permits in the past.
- b) In order to protect stream and fish habitat, it is necessary to maintain a minimum amount of flow (maintenance flow) in the stream at all times. This province, as well as the three other Atlantic Provinces, have traditionally used the somewhat arbitrary criteria of 25% of the mean annual flow (25% MAF) as maintenance flow. Stream flows for a particular stream can be estimated for any time period on the basis of watershed size and historical data from the closest long term stream flow monitoring station. The 25% mean annual flow criteria was adapted many years ago from research work carried out in the northwestern United States.
- c) The Department of Fisheries and Oceans (DFO) has advised that this criteria does not, in their view, adequately protect the aquatic environment in most situations. They correctly observe that this criteria does not take into account the local and regional variability in the groundwater contribution to stream baseflow and does not consider seasonal low flow characteristics of individual basins.
- d) At the present time, DFO, like the Province, has a regulatory mandate and administrative jurisdiction to protect and manage freshwater fish habitat. It is the current policy of the federal department that extraction of water from streams for any purpose should not lower stream flow levels below that to which fish and other aquatic organisms are normally accustomed. They are prescribing that the maintenance flow criteria be based on long term flow frequency data, and that water flow in a stream in any particular month not be lowered below that level which normally exists.



## **B. POLICY**

### **1. GROUNDWATER:**

- a) The use of groundwater reserves as a source of water supply for agricultural irrigation purposes is considered to be a viable and sustainable option in terms of water availability and environmental impacts. This recognizes that the Province has a generous supply of good quality groundwater that can be managed and utilized as a renewable natural resource. The Department of Environmental Resources will continue to assess applications for high capacity wells on an individual, case by case basis following the existing regulatory and assessment procedures. The regulations currently require that anyone wishing to establish a high capacity well must first obtain a Groundwater Exploration Permit. This permit will prescribe the necessary testing that the proponent will be required to carry out. Once well construction and testing is completed, and provided the impacts on other users and stream flow are considered by the Department to be acceptable, a Groundwater Allocation will be issued.
- b) Under no circumstances will the rate of groundwater extraction be permitted to exceed 50% of the annual recharge for any area influenced by a well. In addition, the groundwater allocation will take into consideration the potential impact on stream flow with specific reference to maintenance flow.
- c) The Department of Environmental Resources will continue to require that "production wells are to have no significant predicted impact on other users". In the case where such interferences are evident, the Department will administer the provisions of the Water Well Regulations that hold the recipient of a groundwater allocation "fully and solely liable for all adverse effects to any party".
- d) In basins where surface water supplies available for extraction have been fully allocated, the Department of Environmental Resources may require that wells be located at such distance from a stream as to render the direct and immediate impacts of the extraction on stream flows as insignificant. In this case, preference will be given to applications for wells that are more than 100 metres from a stream.

### **2. SURFACE WATER:**

#### **a) MAINTENANCE FLOW:**

- (i) Maintenance flow for any surface water system will be determined on the basis of flow frequency/flow duration data calculated on the basis of

watershed size above the point of water withdrawal using historical information prorated from the nearest long term stream flow monitoring station.

- (ii) Maintenance flow for any point in a stream will be calculated on the basis of 70% of the flow rate that is exceeded 50% of the time in any month and at no time will the actual rate of flow in the stream be reduced by extraction below that rate which is exceeded 95% of the time.
- (iii) West of Summerside, the stream flow observed per unit area of watershed is generally much less than that east of Summerside. The methodology outlined above in section (ii) accounts for this regional difference and will be utilized in all areas of the province. However, due to the lower basin yields in areas west of Summerside, the amount of available water for extraction per unit area of watershed can be as little as 1/3 to 1/2 of that available east of Summerside.
- (iv) In watersheds where the permitted withdrawal rate approaches 50% of the amount of water that is predicted to be available in excess of maintenance flow, the stream will be equipped with a flow measurement gauge and monitored to ensure that actual stream flow does not drop below maintenance flow level.
- (v) A Watercourse Alteration Permit will be required by any person withdrawing water from a surface water body at a rate in excess of 50 IGPM or when the total daily withdrawal exceeds 10,000 imperial gallons.
- (vi) In an effort to fairly and equitably distribute the surface water resources in any watershed where the demand exceeds the supply, available water will be allocated in allotments of 400 IGPM (500 USGPM). In basins where demand does not exceed supply, an individual farmer may apply for and receive a permit for extraction rates that exceed that amount.
- (vii) With the exception of the water withdrawal allocations associated with storage ponds, water withdrawal allocations are not transferable from one farmer to another, either with the sale or lease of a property or the discontinuance of use of that allocation. Because of the capital investment associated with storage ponds, which are not moveable, the water withdrawal allocation will transfer with the ownership of the property on which the pond is located.

**b) ALLOCATION OF AVAILABLE WATER:**

The amount of water flow in a stream that is in excess of maintenance flow is considered available for extraction and is termed "**available water**". Available water will be allocated to applicants on the basis of a "**watershed priority list**". The position of any water user on the watershed priority list will dictate their long term priority access to the available water in that system. Watershed priority lists will be established for each watershed by the following method:

- (i) Those users that have obtained Water Withdrawal Permits to extract water for irrigation purposes at specific locations in previous years will have first priority for the issuance of permits in each year. This priority will be limited to a pumping rate of 400 IGPM (500 USGPM) and only at locations specified on previous permits.
- (ii) Those users who owned irrigation equipment in 1994, and have applied for a Water Withdrawal Permit to extract water for irrigation purposes in 1995 will have second priority for the issuance of permits in each year. This priority will be limited to a pumping rate of 400 IGPM (500 USGPM) and only at locations specified on the original 1995 application.
- (iii) All other applicants will have third priority for the issuance of permits for extraction. As above, available water will be allocated in allotments of 400 IGPM (500 USGPM).

Within each priority grouping, the allocation of available water will be based on the date of application. The earliest received application will have priority.

At the time of application, every applicant must indicate the quantity of water they require at each pumping location and the years (ie: each year, every second year, every third year, etc.) that the water will be required. Permits will be issued only for those years when the applicant requires the available water for irrigation purposes. Once established in the first year of application, the pattern of usage (the years which the applicant has previously indicated that they will require the water at a site) must not change. Should the permit holder wish to change their usage pattern, their priority level will be lost. This restriction is necessary so that the available water in the stream can be allocated to other users during years when the priority permit holder does not require irrigation water from the site.

In years when a priority permit holder does not require irrigation water, available water will be issued to the next applicant on the watershed priority list. This applicant must also indicate the years when water will be required. A permit will not be issued if future plans of the new applicant conflict with those of existing permit holders. Once an applicant has been issued a Water Withdrawal Permit for the extraction of water for irrigation the applicant will, in subsequent years, be listed in the highest priority grouping for the years indicated on their application that they require irrigation water.

In years where a user has priority for allocation of available water at a particular site, the user must be granted a Water Withdrawal Permit for the extraction of water for irrigation in order to retain their priority listing. Once a priority listing has been lost, the users priority listing will drop to the next appropriate level.

The construction of storage ponds adjacent to streams, at suitable locations, will be encouraged. The combined benefit of the stored water and the reduced rate of withdrawal from the stream will substantially reduce the impact on stream flow. Any applicant willing to construct a storage pond(s), provided water is predicted to be available, will be given a Water Withdrawal Permit. These ponds could be constructed adjacent to streams with recharge by gravity flow through a pipe(s) connecting it to the main stream. If local topography is not suitable for the construction of a stream side pond, a storage pond remote from the stream could be constructed and recharged by pumping continuously from the stream at a substantially lower rate than that required for direct withdrawal. These ponds would have to be designed and approved by the Departments of Agriculture and Environmental Resources.

Many stream systems in the province have instream impoundments or ponds (*i.e.* Scales Pond, Wrights Pond). It is anticipated that these ponds can be managed to maximize the amount of water available for withdrawal purposes by taking full advantage of the stored water while maintaining fish passage into the pond and maintenance flow levels in the stream below the pond. Water Withdrawal Permits for the extraction of water from these ponds for irrigation will be issued in consultation with the organizations responsible for the management of the pond and will also respect the priority listing of users, fish passage requirements and downstream maintenance flow requirements.

In watersheds where there is a high demand for the available water for irrigation, maximum utilization will only occur with a high degree of cooperation among farmers and with the Departments of Environmental Resources and Agriculture. To facilitate this cooperation, an *ad hoc* committee will be formed for the watershed consisting of each irrigating farmer and representatives from the two departments. The mandate of the committee will be to coordinate various irrigating activities such

as management of pond levels, alternating extraction activities or other sharing mechanisms. While the committee will coordinate options for water extraction, it will not conduct management activities. In addition, the committee will not have the mandate to alter the established priority list for the watershed. Any changes to the issuance of permits must be by agreement with the affected persons on the priority list.

**c) CESSATION OF EXTRACTION UNDER LOW FLOW CONDITIONS:**

In the event that stream flows should approach maintenance flow levels, in any year, at any gauging station, users above that point will be shut down in the following priority:

- (i) Permit holders not using storage ponds will be shut down in reverse order of their priority listing as determined using the criteria outlined in Subsection B(2)(b) above.
- (ii) Any permit holders with an approved water storage pond(s) will have priority over those irrigating directly from a stream. Permit holders using storage ponds will be shut down in reverse order of their priority listing as determined using the criteria outlined in Subsection B(2)(b) above.

**d) WATER WITHDRAWAL FEES:**

There will be a \$300.00 annual water withdrawal fee applied to each Water Withdrawal Permit issued for each site for the extraction of water for irrigation. Extraction points on a stream used by the same permit holder that are less than 500 metres apart may be considered to be one site. This revenue is required to offset the costs associated with the administration and implementation of the monitoring program, and to cover costs associated with stream flow monitoring (gauging).

The Department of Environmental Resources will issue an invoice to all irrigators who are scheduled to extract water in the coming year. The invoice will be issued in early January and payment must be received by February 15. Upon receipt of payment the Department will issue a Water Withdrawal Permit, valid for the coming irrigation season. Permits must be visibly displayed at each extraction site. If no payment is received the irrigator will lose their position on the long term priority listing for that extraction site.

**APPENDIX G: WATERCOURSE AND WETLAND PROTECTION  
REGULATIONS OF PRINCE EDWARD ISLAND**



## **PLEASE NOTE**

This document, prepared by the [Legislative Counsel Office](#), is an office consolidation of this regulation, current to June 1, 2012. It is intended for information and reference purposes only.

This document is *not* the official version of these regulations. The regulations and the amendments printed in the [Royal Gazette](#) should be consulted to determine the authoritative text of these regulations.

For more information concerning the history of these regulations, please see the [Table of Regulations](#).

If you find any errors or omissions in this consolidation, please contact:

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**CHAPTER E-9**  
**ENVIRONMENTAL PROTECTION ACT**  
**WATERCOURSE AND WETLAND PROTECTION**  
**REGULATIONS**

Pursuant to section 25 of the *Environmental Protection Act* R.S.P.E.I. 1988, Cap. E-9, Council made the following regulations:

PART I - DEFINITIONS

- |                                                                                                                                                                                                                                                               |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 1. (1) In these regulations                                                                                                                                                                                                                                   | Definitions              |
| (a) “Act” means the <i>Environmental Protection Act</i> ;                                                                                                                                                                                                     | Act                      |
| (b) “agricultural crop” means any crop that is cultivated for the production of food, fibre or pharmaceuticals, and without limiting the generality of the foregoing, includes row crops;                                                                     | agricultural crop        |
| (c) “authorization” means an authorization in respect of an intensive livestock operation, granted pursuant to section 10, and includes an amended authorization, and an authorization varied or confirmed by the Commission pursuant to section 13;          | authorization            |
| (d) “bog” means a wetland covered by <i>sphagnum</i> mosses, with peat underneath;                                                                                                                                                                            | bog                      |
| (e) “buffer zone” means the 15-metre-wide area referred to in section 3;                                                                                                                                                                                      | buffer zone              |
| (f) “certificate” means a valid and current Watercourse, Wetland, and Buffer Zone Activity Certificate granted pursuant to section 4;                                                                                                                         | certificate              |
| (g) “cultivate” means to dig, plant, cut, prune, irrigate, fertilize, tend, till, manage, farm, maintain, spray, plough, harvest or engage in any other activity related to growing or harvesting, and “cultivation” means the act of doing any of the above; | cultivate                |
| (h) “Department” means the Department of Environment, Energy and Forestry;                                                                                                                                                                                    | Department               |
| (i) “emergency field order” means an order issued pursuant to subsection 11(5), and includes an emergency field order varied or confirmed by the Commission pursuant to section 13;                                                                           | Emergency Field Order    |
| (j) “grass headland exemption” means a grass headland exemption granted pursuant to section 7 and includes an amended grass                                                                                                                                   | grass headland exemption |



	headland exemption, and a grass headland exemption varied or confirmed by the Commission pursuant to section 13;
grass headland variance	(k) “grass headland variance” means a Grass Headland Variance granted pursuant to section 7, and includes an amended variance and a variance varied or confirmed by the Commission pursuant to section 13;
heavy equipment	(l) “heavy equipment” includes <ul style="list-style-type: none"> <li>(i) excavators, mechanical tree harvesters, porters, skidders, and wood processors,</li> <li>(ii) tractors over 50 horsepower, and</li> <li>(iii) graders, front-end loaders, and bulldozers</li> </ul> but does not include wheeled and tracked equipment when being used in the active suppression of wildfire;
highway	(m) “highway” means every road, street, lane, or alley which has been created by and is maintained by the federal, provincial or a municipal government, and is used by the general public for the passage of vehicles, and includes any bridges over which every such road, street, lane, or alley is laid;
inspector	(n) “inspector” means <ul style="list-style-type: none"> <li>(i) a person who has been appointed as an environment officer pursuant to the Act or appointed as a conservation officer pursuant to the <i>Wildlife Conservation Act</i> R.S.P.E.I. 1988, Cap. W-4.1, or who is an <i>ex officio</i> conservation officer pursuant to that Act,</li> <li>(ii) a person who has been appointed as a peace officer pursuant to the <i>Police Act</i> R.S.P.E.I. 1988, Cap. P-11, or</li> <li>(iii) a person who has been appointed as a natural resources inspector pursuant to the <i>Wildlife Conservation Act</i>;</li> </ul>
landlocked pond	(o) “landlocked pond” means an excavated depression or hole in the terrain, that holds water some or all of the time, and does not have any of the following characteristics <ul style="list-style-type: none"> <li>(i) an inlet or outlet,</li> <li>(ii) hydric soil, or</li> <li>(iii) aquatic or water-tolerant vegetation;</li> </ul>
license	(p) “license” means a Watercourse, Wetland and Buffer Zone Activity Business License granted pursuant to section 5, and includes an amended license;
licensee	(q) “licensee” means a person who holds a license;
management plan	(r) “management plan” means a management plan as defined in subsection 9(1), and includes an amended management plan and a

management plan varied or confirmed by the Commission pursuant to section 13;

- (s) “meadow” means a wetland that has fluctuating water tables, lacks trees, and is covered in water-tolerant *Graminoid* vegetation; meadow
- (t) “Minister” means the Minister of Environment, Energy and Forestry; Minister
- (u) “motor vehicle” means a vehicle that is powered, drawn, propelled or driven by any means other than muscular power; motor vehicle
- (v) “officer” means officer
- (i) a person who has been appointed as an environment officer pursuant to the Act,
- (ii) a person who has been appointed as a conservation officer pursuant to the *Wildlife Conservation Act*, or who is an *ex officio* conservation officer pursuant to that Act;
- (w) “permit” means a Watercourse or Wetland Activity Permit or a Buffer Zone Activity Permit granted pursuant to section 6, and includes an amended permit and a permit varied or confirmed by the Commission pursuant to section 13; permit
- (x) “permittee” means a person who has a permit granted pursuant to these regulations; permittee
- (y) “Prince Edward Island Wetland Inventory” means the geographic information system database of wetlands on Prince Edward Island maintained by the Department; Prince Edward Island Wetland Inventory
- (z) “provincial parcel of land” means a parcel of land having a parcel identifier number assigned by the Provincial Treasury of Prince Edward Island; provincial parcel of land
- (aa) “row crop” means any crop planted in rows that are wide enough apart to allow for inter-row cultivation, and without limiting the generality of the foregoing, includes potatoes, carrots, rutabagas, onions, cole crops, string beans, dry beans, sugar beets, beets, sweet potatoes, parsnips, pumpkins and lettuce; row crop
- (bb) “seasonally flooded flats” means a wetland formed by rivers overflowing their banks to a depth of at least 12 inches annually during spring, winter and late fall; seasonally flooded flats
- (cc) “sediment bed” means a depression or low area of mud, silt, sand, gravel, rock or bedrock, or a combination thereof, which has a defined path which was formed or apparently formed by flowing water; sediment bed

shrub swamp	(dd) “shrub swamp” means a wetland containing nutrient-rich, highly decomposed woody plant and organic material and has as its dominant cover shrubs and herbaceous vegetation, including but not limited to alders;
watercourse	(ee) “watercourse” means an area which has a sediment bed and may or may not contain water, and without limiting the generality of the foregoing, includes the full length and width of the sediment bed, bank and shore of any stream, spring, creek, brook, river, lake, pond, bay, estuary or coastal body, any water therein, and any part thereof, up to and including the watercourse boundary;
watercourse boundary	(ff) “watercourse boundary” means (i) in a non-tidal watercourse, the edge of the sediment bed, and (ii) in a tidal watercourse, the top of the bank of the watercourse, and where there is no discernible bank, means the mean high water mark of the watercourse;
wetland	(gg) “wetland” (i) an area which contains hydric soil, aquatic or water-tolerant vegetation, and may or may not contain water, and includes any water therein and everything up to and including the wetland boundary, and (ii) without limiting the generality of the foregoing, includes any area identified in the Prince Edward Island Wetland Inventory as open water, deep marsh, shallow marsh, salt marsh, seasonally flooded flats, brackish marsh, a shrub swamp, a wooded swamp, a bog or a meadow;
wetland boundary	(hh) “wetland boundary” means where the vegetation in a wetland changes from aquatic or water-tolerant vegetation to terrestrial vegetation or water-intolerant vegetation;
wooded swamp	(ii) “wooded swamp” means a wetland dominated by water-tolerant trees or shrubs growing in a muck soil and covered by a moss layer at least 30 centimetres thick.
Reference	(2) In these regulations, any reference to a certificate, license, permit, authorization, grass headland variance or grass headland exemption or management plan, being required, means a valid and current certificate, license, permit, authorization, grass headland variance, or grass headland exemption or management plan, as the case may be. (EC720/08)

## PART II – WATERCOURSES AND WETLANDS

Prohibition	<b>2.</b> (1) No person shall, without a license or a Watercourse or Wetland Activity Permit, and other than in accordance with the terms and conditions thereof, alter a watercourse or a wetland, or any part thereof,
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or water flow therein, in any manner, or engage in any of the following activities in or on a watercourse or a wetland:

- (a) drain, pump, dredge, excavate, or remove soil, water, mud, sand, gravel, stones, rubbish, rocks, aggregate or material or objects of any kind;
- (b) dump or infill, or deposit soil, water, mud, sand, gravel, stones, rubbish, litter, rocks, aggregate or material or objects of any kind;
- (c) construct or place, repair or replace, demolish or remove, buildings or structures or obstructions of any kind, including but not limited to bridges, culverts, breakwaters, dams, wharves, docks, slipways, decks, or flood or erosion protection works;
- (d) operate heavy equipment or a motor vehicle on the sediment bed, beach or bank of a watercourse, with the exception of the operation of a motor vehicle on a beach for the conduct of activities related to the legal harvesting of a fishery resource or the legal removal of beach material, and the exception of the launching of a boat;
- (e) operate heavy equipment or a motor vehicle on a wetland, except a boat on the water of a wetland;
- (f) disturb, remove, alter, disrupt or destroy the ground in any manner;
- (g) disturb, remove, alter, disrupt or destroy vegetation in any manner, including but not limited to the cutting of live trees or live shrubs; or
- (h) carry out any type of watercourse or wetland enhancement activity, including but not limited to debris removal, habitat development, or placement of structures.

(2) No person shall, without a license or a Watercourse or Wetland Activity Permit, and other than in accordance with the terms and conditions thereof, cause or permit the engaging in any of the activities listed in subsection (1). *Idem*

(3) The cutting of live trees and live shrubs in a wooded swamp is exempted from the prohibition in clause (1)(g). *Exemption*

(4) Notwithstanding clause 2(1)(a), a person may remove sand, gravel, stones, rocks, aggregate or material from a beach if the sand, gravel, stones, rocks, aggregate or material is *Exception*

- (a) removed from below the high water mark;
- (b) utilized for personal domestic non-commercial purposes;
- (c) transported directly from the beach to the point of use;
- (d) hauled with a motor vehicle that has a load capacity not larger than a single axle light duty truck;
- (e) loaded manually through the use of hand tools; and

(f) of a volume that does not exceed one cubic meter. (EC720/08; 553/09)

### PART III – BUFFER ZONES

Application of prohibitions

- 3.** (1) Where a watercourse is solely a landlocked pond
- (a) the prohibition in subsection (3) does not apply to cultivating an agricultural crop; and
  - (b) the prohibitions in clauses (4)(d), (f), (g), and (h) do not apply.

*Idem*

- (2) Where a wetland is solely a landlocked pond or solely or a combination of seasonally flooded flats, a shrub swamp, a wooded swamp, a bog or a meadow
- (a) the prohibition in subsection (3) does not apply to cultivating an agricultural crop; and
  - (b) the prohibitions in clauses (4)(d), (f), (g), and (h) do not apply.

*Idem*

- (3) No person shall, without a license or a Buffer Zone Activity Permit, and other than in accordance with the conditions thereof, alter or disturb the ground or soil within 15 metres of a watercourse boundary or a wetland boundary, or cause or permit the alteration or disturbance of the ground or soil, therein, in any manner.

*Idem*

- (4) No person shall, without a license or a Buffer Zone Activity Permit, and other than in accordance with the conditions thereof, engage in or cause or permit the engaging in any of the following activities within 15 metres of a watercourse boundary or a wetland boundary:
- (a) drain, pump, dredge, excavate, or remove soil, water, mud, sand, gravel, stones, rocks, or aggregate;
  - (b) dump or infill, or deposit soil, water, mud, sand, gravel, stones, rubbish, litter, rocks, aggregate or material or objects of any kind;
  - (c) construct or place, repair or replace, demolish or remove, buildings or structures or obstructions of any kind, including but not limited to bridges, culverts, breakwaters, dams, wharves, docks, slipways, decks, or flood or erosion protection works;
  - (d) operate heavy equipment or a motor vehicle, other than
    - (i) upon a highway,
    - (ii) upon a private road, right-of-way, or driveway which was approved prior to the enactment of these regulations by the provincial government or a municipal government in a building permit or a subdivision plan, or
    - (iii) for the conduct of activities directly related to the legal harvesting of a fishery resource, the legal removal of beach material, or the cultivating of an agricultural crop;
  - (e) disturb, remove, alter, disrupt or destroy the ground in any manner;

- (f) cut down live trees or live shrubs;
- (g) cultivate an agricultural crop;
- (h) spray or apply pesticides in any manner.

(5) The land within 15 metres of a watercourse boundary or a wetland boundary referred to in subsections (3) and (4) shall be known as a buffer zone. Measurement

(6) For the avoidance of doubt, clause (4)(f) does not prohibit the pruning of trees or shrubs in a buffer zone, provided it is undertaken without engaging in any of the other activities prohibited by subsections (3) and (4). Permitted activities

(7) The planting of grass, trees or shrubs is exempted from the prohibitions in subsection (3) and clause (4)(e), provided it is undertaken without engaging in any of the other activities prohibited by subsections (3) and (4), and provided that only hand tools are used. Exemption

(8) The use of a ride-on lawn mower to cut grass in a buffer zone is exempted from the prohibition in clause (4)(d). (EC720/08) Idem

#### PART IV – WATERCOURSE, WETLAND AND BUFFER ZONE ACTIVITY CERTIFICATE

4. (1) For the purposes of subsection (2), “person” does not include a corporation. person, defined

(2) The Minister may grant a Watercourse, Wetland, and Buffer Zone Activity Certificate to a person who provides Certificate

- (a) a completed application, on a form approved by the Minister, accompanied by the application fee of \$200;
- (b) satisfactory proof of successful completion, within four years prior to the date of submission of the application, of a watercourse, wetland and buffer zone activity and alteration training course acceptable to the Minister; and
- (c) any further documentation requested by the Minister.

(3) A certificate expires on the earlier of Expiry

- (a) two years from the date of issuance; or
- (b) on the revocation by the Minister, for good and sufficient reason, after providing the holder of the certificate with an opportunity to be heard, in writing.

(4) A person who holds a certificate is exempt from the requirement to obtain a permit under subsections 2(1) and (2), 3(3) and (4), provided that Exemption

- (a) the person has a license or is employed by a corporate licensee, and complies with the terms and conditions of that license;

- (b) the person complies with the requirements of the Department's Construction Standards for Activity in Watercourses and Wetlands in carrying out the activity; and
- (c) the person supervises and directs the activity. (EC720/08)

**PART V – WATERCOURSE, WETLAND AND BUFFER ZONE  
ACTIVITY BUSINESS LICENSE**

- License application **5.** (1) The Minister may grant a Watercourse, Wetland, and Buffer Zone Activity Business License
- (a) to a natural person who holds a Watercourse, Wetland, and Buffer Zone Activity Certificate, and who provides a completed application, on a form approved by the Minister, accompanied by the application fee of \$200, and any further information or documentation requested by the Minister; or
  - (b) to a corporation which employs at least one person who holds a Watercourse, Wetland, and Buffer Zone Activity Certificate, and which provides a completed application, on a form approved by the Minister, accompanied by the application fee of \$200, and any further information or documentation requested by the Minister.
- Exemption (2) A licensee which is a corporation is exempt from the requirement to obtain a permit under subsections 2(1) and (2), 3(3) and (4), for the activities listed in Schedule A, provided that the licensee ensures that
- (a) an employee who holds a Certificate personally directs and supervises all watercourse, wetland, and buffer zone activities and alterations undertaken by the corporation pursuant to the license;
  - (b) no watercourse, wetland or buffer zone activity or alteration is carried out other than that which is specifically listed on the license; and
  - (c) all activities are carried out in compliance with the Department's Construction Standards for Activity in Watercourses and Wetlands, and these requirements are conditions of the license.
- Idem* (3) A licensee who is a natural person is exempt from the requirement to obtain a permit under subsections 2(1) and (2), 3(3) and (4), for the activities listed in Schedule A, provided that the licensee
- (a) personally directs and supervises all watercourse, wetland and buffer zone activities and alterations undertaken by the person pursuant to the license;
  - (b) ensures that no watercourse, wetland or buffer zone activity or alteration is carried out other than that which is specifically listed on the license; and
  - (c) ensures that all activities are carried out in compliance with the Department's Construction Standards for Activity in Watercourses and Wetlands,

and these requirements are conditions of the license.

(4) At least 24 hours prior to commencing an alteration or activity undertaken pursuant to a license, the licensee shall complete and file with or fax to the Department a notification form provided in Schedule B and this requirement is a condition of the license.

Notification form

(5) The Minister may include such additional terms and conditions in a license as the Minister considers necessary or advisable for the protection or benefit of the environment.

Additional terms and conditions

(6) A license expires on the earlier of  
(a) two years from the date of issuance;  
(b) the licensee, if a natural person, ceasing to hold a certificate; or  
(c) the license being revoked by the Minister.

Expiry

(7) The Minister may  
(a) amend a license or vary the terms or conditions thereof, where the Minister considers it necessary or advisable for the protection or benefit of the environment; or  
(b) revoke a license where the Minister determines there is good and sufficient reason.

Amendment of license

(8) No amendment or revocation shall be made to a license without prior notice and an opportunity to be heard, in writing, being given to the licensee. (EC720/08)

*Idem*

#### PART VI – WATERCOURSE, WETLAND AND BUFFER ZONE ACTIVITY PERMIT

6. (1) The registered owner of a provincial parcel of land is exempt from the requirement to obtain a permit under subsections 2(1) and (2), 3(3) and (4), for the activities listed in Schedule A, provided that the owner engages a person who has a license to do the activity or alteration, and that the owner permits and facilitates access to and inspection of the parcel upon which any activity authorized by the license occurs.

Exemption

(2) The Minister may grant a Watercourse or Wetland Activity Permit or a Buffer Zone Activity Permit or a permit pertaining to a combination thereof, to a person who provides a completed application, and any further information or documentation requested by the Minister, including, but not limited to, plans and documents, mitigation procedures, and proof of ownership of the land on which the activity is to take place.

Permits

(2.1) The fees for an application for, or renewal of, a permit under subsections 2(1) and (2) and 3(3) and (4) shall be payable to the Minister

Application fee



of Finance, Energy and Municipal Affairs in the amount set out in Schedule F of these regulations.

Terms and conditions

(3) The Minister may include such terms and conditions in a permit as the Minister considers necessary or advisable for the protection or benefit of the environment.

Expiry

(4) A permit expires on the earlier of  
(a) the date indicated on the permit; or  
(b) the permit being revoked by the Minister.

Extension, amendment

(5) The Minister may  
(a) extend the expiry date on a permit, upon request, prior to the expiry date;  
(b) amend a permit or vary the terms or conditions thereof, where the Minister considers it necessary or advisable for the protection or benefit of the environment; or  
(c) revoke a permit where the Minister determines there is good and sufficient reason.

Amendment

(6) No amendment or revocation shall be made to a permit without prior notice and an opportunity to be heard, in writing, being given to the permittee.

Notice

(7) In issuing or amending a permit, the Minister may require that notice of the application be given to the public or particular members thereof, and the manner and content of such notice shall be as directed by the Minister. (EC720/08; 248/12)

#### PART VII – GRASS HEADLANDS

Application of section

**7.** (1) The requirements of this section do not apply  
(a) where the row crop being cultivated is corn;  
(b) where there is a management plan for the parcel or parcels of land being cultivated, and the cultivation is being done in accordance with that management plan; or  
(c) where the boundary referred to in subsection (2) pertains to  
(i) a watercourse that is solely a landlocked pond, or  
(ii) a wetland that is solely a landlocked pond, or solely or a combination of seasonally flooded flats, a shrub swamp, a wooded swamp, a bog or a meadow.

Prohibition

(2) No person shall, without a grass headland variance or grass headland exemption, and other than in accordance with the terms and conditions thereof, cultivate a row crop within 200 metres of any watercourse boundary or wetland boundary unless every row that ends

within 200 metres of any watercourse boundary or wetland boundary ends at

- (a) a grass headland; or
- (b) a buffer zone.

(3) In subsection (2), “grass headland” means an area of live perennial grass grass headland,  
defined

- (a) which was planted prior to the calendar year in which the row crop was planted;
- (b) which is at least 10 metres in width, measured commencing at the end of each row and continuing in the same direction as each row; and
- (c) no part of which is contained within a buffer zone.

(4) For the avoidance of doubt, if both ends of a row of a row crop are within 200 metres of a watercourse boundary or a wetland boundary, then the requirements herein apply to both ends of the row, unless a grass headland variance or grass headland exemption is obtained. *Idem*

(5) In any prosecution for a violation of subsection (2) or (6), the burden of proving that a grass headland was planted prior to the year in which the row crop was planted is on the defendant, to establish on a balance of probabilities. Burden of proof

(6) No person shall assist or cause or permit the cultivation of a row crop in violation of subsection (2). Prohibition

(7) The Minister may grant a grass headland variance or grass headland exemption to a person who provides a completed application, and any further information or documentation requested by the Minister, including, but not limited to, plans and documents, and proof of ownership of the land on which the activity is to take place. Application

(8) The Minister may include such terms and conditions in a grass headland variance or grass headland exemption as the Minister considers necessary or advisable for the protection or benefit of the environment. Terms and  
conditions

(9) A grass headland variance or grass headland exemption expires on the earlier of Expiry

- (a) the date indicated in the variance or exemption; or
- (b) the variance or exemption being revoked by the Minister.

(10) The Minister may Extension,  
amendment

- (a) extend the expiry date on a grass headland variance or grass headland exemption, upon request prior to the expiry date;
- (b) amend a grass headland variance or grass headland exemption or the terms or conditions thereof where the Minister considers it

necessary or advisable for the protection or benefit of the environment; or  
 (c) revoke a grass headland variance or grass headland exemption where the Minister determines there is good and sufficient reason.

Notice (11) No amendment or revocation shall be made to a grass headland variance or grass headland exemption without prior notice and an opportunity to be heard, in writing, being given to the holder thereof. (EC720/08)

#### PART VIII – CULTIVATING ON SLOPED LAND PROHIBITION

Definitions **8.** (1) In this section,

Prince Edward Island Sloped Land Inventory (a) “Prince Edward Island Sloped Land Inventory” means the database layer produced by the Department’s Geographic Information System Database, which identifies land in the province having a slope greater than 9%; and

row crop (b) “row crop” does not include corn.

Prohibition (2) No person shall, on any provincial parcel of land, cultivate one or more hectares of row crop on any area of that parcel which has a slope which is greater than 9%, unless there is a management plan for that area and the cultivation of the row crop is done, pursuant to, and in accordance with, that management plan.

Identified land (3) Where land is identified in the Prince Edward Island Sloped Land Inventory, it is deemed to

(a) have a slope greater than 9%; and

(b) be one hectare or more in size, unless the contrary is proven on a balance of probabilities. (EC720/08)

#### PART IX – MANAGEMENT PLANS

Definitions **9.** (1) In this section

management plan (a) “management plan” means a plan that is approved by a management specialist and contains a soil and crop management component that addresses crop sequences, tillage practices, planting of cover crops, and any other soil conservation practices that may be prescribed by a management specialist;

management specialist (b) “management specialist” means a person who has been appointed as a management specialist pursuant to subsection (2).

(2) The Minister may appoint as a management specialist a person whom the Minister is satisfied has expertise in agricultural engineering and who is registered

(a) as an agrologist pursuant to the provisions of the *Agrologists Act* R.S.P.E.I. 1988, Cap. A-10; or

(b) as an engineer pursuant to the provisions of the *Engineering Profession Act* R.S.P.E.I. Cap. E-8.1.

(3) The appointment of a management specialist may be for such term and be subject to such conditions as stipulated in the appointment, and may be revoked by the Minister at will. *Idem*

(4) An application for approval of a management plan may be made in the form as set out in Schedule C. Application

(5) A management specialist may approve a management plan upon receipt of a completed application, and any further information or documentation requested by the management specialist, including, but not limited to, plans and documents, and proof of ownership of the land on which the activity is to take place. Approval

(6) A management specialist may include such terms and conditions in a management plan as the management specialist considers necessary or advisable for the protection or benefit of the environment. *Idem*

(7) A management specialist may amend the terms or conditions of a management plan where the management specialist considers it necessary or advisable for the protection or benefit of the environment. Extension, amendment

(8) No amendment shall be made to a management plan without prior notice, in writing, and an opportunity to be heard, being given to the owner of the land and any person cultivating the land. Notice

(9) A management specialist shall file a management plan, and any amendment thereof, with the Resource Inventory and Modelling Section of the Department. Filing of plan

(10) A management plan expires on the date indicated in the management plan or upon cancellation by the Minister. Expiration

(11) The Minister may cancel a management plan Cancellation

(a) for good and sufficient reason, after providing the owner of the land, and any person cultivating the land, with an opportunity to be heard, in writing; or

(b) upon application by the owner of the land and any person cultivating the land.

Notification (12) The Minister's office shall notify the Resource Inventory and Modelling Section of the Department of the cancellation of a management plan. (EC720/08)

#### PART X – INTENSIVE LIVESTOCK OPERATIONS

- Definitions **10.** (1) In this section,
- intensive livestock operation (a) “intensive livestock operation” means a place where livestock are found in a density greater than seven animal units per acre of living space, with the calculation of animal units to be determined by reference to Column 2 of Schedule D;
- livestock (b) “livestock” means cattle, horses, swine, poultry, sheep, goats, fox and mink;
- livestock waste (c) “livestock waste” means
- (i) feces and manure or manure and associated feed losses,
  - (ii) urine from livestock and associated livestock bedding and waste water, litter, or wash water or water contaminated by either urine or feces,
  - (iii) wasted feed, milkhouse waste, hair, feathers or other debris associated with an agricultural operation, or
  - (iv) any combination of the above;
- living space (d) “living space” means any confined area to which livestock have access.
- Determination of density (2) For the avoidance of doubt,
- (a) whether an operation contains one type of livestock or a combination of two or more, the density is to be determined by reference to the total animal units, as set out in Column 2 of Schedule D; and
  - (b) where there is more than one living space on a provincial parcel of land, the density of each living space is to be calculated separately and each one which contains more than seven animal units per acre constitutes an intensive livestock operation.
- Prohibition, discharge (3) The owner and operator of an intensive livestock operation shall ensure that no livestock waste from the operation enters a watercourse or a wetland.
- Burden of proof (4) Where livestock waste from an intensive livestock operation enters a watercourse or a wetland, the burden of proof is on the owner and operator of the intensive livestock operation to establish due diligence, on a balance of probabilities.

(5) In determining whether an owner or operator exercised due diligence, the following are among the factors which may be taken into account

Determining due diligence

- (a) whether the operation had earthen berms or other types of physical barriers to prevent the livestock waste from entering the watercourse or wetland; and
- (b) whether the operation had a self-contained watertight holding facility into which the livestock waste is diverted.

(6) Within 90 metres of a watercourse boundary or a wetland boundary, no person shall, without a written authorization from the Minister

Prohibition

- (a) construct an intensive livestock operation, or any part thereof, or add livestock, structures or facilities to any existing intensive livestock operation;
- (b) commence an intensive livestock operation or any activity connected thereto; or
- (c) assist in or cause or permit clause (a) or (b).

(7) The requirements of subsection (6) do not apply where the boundary referred to in subsection (6) pertains to

Exemption

- (a) a watercourse that is solely a landlocked pond; or
- (b) a wetland that is solely a landlocked pond, or solely or a combination of seasonally flooded flats, a shrub swamp, a wooded swamp, a bog or a meadow.

(8) The distance between a watercourse boundary or a wetland boundary and an intensive livestock operation shall be measured from the wetland boundary or watercourse boundary to the nearest point of living space. (EC720/08)

Measurement

## PART XI – INSPECTIONS AND ORDERS

**11.** (1) It is a condition of every license, permit, authorization, management plan, grass headland variance and grass headland exemption under these regulations that the holder thereof shall permit and facilitate access to and inspection of any property upon which the holder carries on any activity authorized by the license, permit, authorization, management plan, grass headland variance or grass headland exemption.

Condition, access and inspection

(2) To ensure or determine compliance with these regulations, an inspector or an officer may

Powers of inspectors and officers

- (a) enter upon and pass through or over private property without being liable for trespass, including but not limited to land where agricultural crops are being cultivated or may be cultivated;
- (b) enter and inspect any premises, excluding a private dwelling house;

(c) inspect and conduct tests, and take photographs, surveys, measurements, and samples of soil and vegetation or other matter, and samples of water or any other liquid;

(d) require a landowner or lessee to produce for inspection any survey plans, leases, agreements, estimates, statements of account, or other documents or records that pertain to activity carried out on the land;

(e) require any person to produce for inspection any certificate, license, permit, authorization, management plan, grass headland variance or grass headland exemption that person has, claims to have, or would, in the opinion of the inspector or officer, be required to have to carry out the activity or operation; and

(f) receive copies of any records or documents produced under clauses (d) and (e), and retain the same for the purpose of copying and returning them.

Power to stop  
vehicle

(3) For the purposes of enforcing these regulations, an officer may signal or request any person driving a motor vehicle to stop, and thereupon the person shall bring the vehicle to a stop and shall not proceed until permitted to do so by the officer.

Standards

(4) For the avoidance of doubt, the standards established herein are minimum standards and nothing contained herein, nor compliance with these regulations and the standards incorporated herein, nor compliance with the terms and conditions of any license, permit, authorization, management plan, grass headland variance or grass headland exemption precludes the issuance of an order pursuant to subsection (5), or an environmental protection order pursuant to sections 7 or 7.1 of the Act where the Minister believes, on reasonable and probable grounds, that a threat to the environment or environmental health is occurring or has occurred.

Verbal order,  
emergency field  
order

(5) Where an officer believes, on reasonable grounds, that an activity is occurring or has occurred which is a violation of these regulations and time is of the essence to take remedial action to protect the environment, the officer may issue a verbal order or an emergency field order, as set out in the form in Schedule E, to the person committing or apparently committing the violation, or to the person in charge or apparently in charge of the activity which constitutes the violation, or to the registered owner of the property on which it is or has occurred, to cease the activity and commence remedial measures as directed.

Prohibition

(6) No person shall fail or refuse to comply with a verbal order or an emergency field order. (EC720/08)

## PART XII - GENERAL

12. (1) The Minister may delegate to any Minister of the Crown in right of the province or to a Director or other employee within the Minister's Department any power conferred on the Minister under these regulations, and the Minister, Director or other employee to whom the power is delegated may then exercise the power subject to any terms and conditions that the Minister prescribes. Delegation

(2) A person to whom a license, permit, authorization, grass headland variance or grass headland exemption is granted, or for whom a management plan is approved, shall be deemed to have accepted responsibility for all work done pursuant thereto. Completion of work

(3) The granting of a certificate, license, permit, authorization, grass headland variance or grass headland exemption or the approving of a management plan, does not exempt the person to whom it is granted or for whom it is approved from the provisions of any Act of the Legislature or the regulations under such Act, or any Act of the Parliament of Canada or the regulations made under such Act. Effect of granting

(4) Neither the Minister, the Department nor any employee or officer of the Crown is liable for any loss or damage caused or occasioned by Exemption from liability

- (a) any activity or alteration for which a license, permit, authorization, grass headland variance or grass headland exemption was granted or for which a management plan was approved pursuant to these regulations;
- (b) the revocation of any certificate, license, permit, authorization, grass headland variance or grass headland exemption or management plan; or
- (c) the amendment of any certificate, license, permit, authorization, grass headland variance or grass headland exemption or management plan.

(5) No action or other proceeding for damages lies or shall be instituted against No action lies

- (a) the Minister or any person acting for the Minister pursuant to a delegation of power under subsection (1);
- (b) an inspector or an officer; or
- (c) any person lawfully assisting or acting under the direction of any person referred to in clauses (a) and (b),

for anything done in good faith in the performance or intended performance of any duty or in the exercise or intended exercise of any power under these regulations, or for any neglect or default in the performance or exercise in good faith of any such duty or power.



- Conditions (6) The issuance of a certificate, license, permit, authorization, grass headland variance or grass headland exemption and the approval of a management plan pursuant to these regulations are conditional on
- (a) all material facts in the application having been disclosed; and
  - (b) the facts, representations and other information contained in the application being true, accurate and complete.
- Prohibition (7) No person shall give false or misleading information in an application, report or statement or any other document submitted or made to the Minister under these regulations.
- Grounds for refusal, revocation (8) Grounds for refusing or revoking a certificate, license, permit, authorization, grass headland variance or grass headland exemption or management plan, include, but are not limited to
- (a) current or prior non-compliance by the holder with the Act or any regulations made thereunder, or with any term or condition of a certificate, license, permit, authorization, grass headland variance, grass headland exemption or management plan;
  - (b) discovery of relevant information not disclosed or not available at the time the certificate, license, permit, authorization, grass headland variance or grass headland exemption was granted or the management plan was approved;
  - (c) information being received that the activity being carried on pursuant to the certificate, license, permit, authorization, grass headland variance, grass headland exemption or management plan is affecting the property in question in a way not anticipated, or the property of other persons; and
  - (d) discovery of a threat to the environment or environmental health that is, or is apparently, being caused by or exacerbated by the activity being carried on pursuant to the certificate, license, permit, authorization, grass headland variance, or grass headland exemption or management plan.
- Prosecution (9) In any prosecution for a violation of these regulations
- (a) the registered owner of the property upon which any activity prohibited or regulated by these regulations occurs is deemed to have caused or permitted the activity, unless it is established, on a balance of probabilities, that the registered owner did not cause or permit the activity, and the burden of proof is on the registered owner to so prove, on a balance of probabilities;
  - (b) where an area is identified as open water, deep marsh, shallow marsh, brackish marsh or salt marsh in the Prince Edward Island Wetland Inventory, that is *prima facie* evidence that the area comes within the requirements of these regulations, unless the contrary is proved on a balance of probabilities, and the burden is on the defendant to so prove;

(c) no exception, exemption, proviso, excuse or qualification prescribed by these regulations is required to be set out or negated, as the case may be, in an information or summary offence ticket laid with respect to a charge under these regulations; and

(d) the burden of proving that any exception, exemption, proviso, excuse or qualification prescribed by these regulations operates in favour of the defendant is on the defendant, to prove on a balance of probabilities, and the prosecutor is not required, except by way of rebuttal, to prove that the exception, exemption, proviso, excuse, or qualification does not operate in favour of the defendant, whether or not it is set out in the information or summary offence ticket.

(10) All persons to whom a request is made by an inspector or an officer under these regulations shall provide all reasonable assistance to enable the inspector or the officer to carry out his or her functions under these regulations, and shall furnish the inspector or officer with all information reasonably required to administer or enforce these regulations.

Reasonable assistance

(11) No person shall impede or obstruct or knowingly make false or misleading statements to an inspector or an officer engaged in carrying out the inspector's or officer's functions under these regulations. (EC720/08)

Prohibition

### PART XIII - APPEALS

**13.** (1) In this section, "Commission" means the Island Regulatory and Appeals Commission established pursuant to section 2 of the *Island Regulatory and Appeals Commission Act* R.S.P.E.I. 1988, Cap. I-11.

Island Regulatory and Appeals Commission

(2) A person may, within 21 days of

Notice of appeal

- (a) the refusal, revocation or amendment of a permit, grass headland variance, grass headland exemption, or authorization;
- (b) the refusal of approval of a management plan; or
- (c) the issuance of an emergency field order

appeal the same by filing a notice of appeal with the Commission, in the form prescribed by the Commission.

(3) A notice of appeal under subsection (1) may be filed only by a person who

*Idem*

- (a) is the holder of, or an applicant for, a permit, grass headland variance, grass headland exemption or authorization;
- (b) is the applicant for or is subject to a management plan; or
- (c) is subject to an emergency field order,

or by anyone else determined by the Commission to be personally or adversely affected by the matter so as to have standing.

Procedure	(4) Subject to adherence to the rules of natural justice, the Commission shall determine its own procedure.
Powers	(5) The Commission may vary, confirm, or rescind the decision being appealed.
Duty to comply	(6) The initiation of an appeal does not abrogate the requirement to comply with the decision being appealed.
Implementation of order	(7) The Department shall implement an order made by the Commission. (EC720/08)

#### PART XIV – OFFENCES AND PENALTIES

Offence	<b>14.</b> (1) No person shall violate any provision of these regulations or the terms or conditions of any certificate, permit, license, authorization, grass headland variance, grass headland exemption, management plan or emergency field order.
Offence, penalty	(2) Any natural person who violates <ul style="list-style-type: none"> <li>(a) any provision of these regulations, other than subsection 8(2); or</li> <li>(b) any term, condition, or provision of any certificate, permit, license, authorization, grass headland variance, grass headland exemption, management plan or emergency field order,</li> </ul> is guilty of an offence and is liable, on summary conviction, to a fine of not less than \$3,000 or more than \$10,000, and to pay such restitution as the judge thinks fit to any person aggrieved or affected by the violation.
<i>Idem</i>	(3) Any corporation which violates <ul style="list-style-type: none"> <li>(a) any provision of these regulations, other than subsection 8(2); or</li> <li>(b) any term, condition, or provision of any certificate, permit, license, authorization, grass headland variance, grass headland exemption, management plan or emergency field order,</li> </ul> is guilty of an offence and is liable, on summary conviction, to a fine of not less than \$10,000 or more than \$50,000, and to pay such restitution as the judge thinks fit to any person aggrieved or affected by the violation.
<i>Idem</i>	(4) Any officer, director or agent of a corporation who directs, authorizes, assents to, acquiesces in or participates in, the commission of an offence by that corporation under subsection (3) is guilty of an offence and is liable, in respect of the commission of an offence by the corporation under subsection (3), to any penalty set out in subsection (2).
<i>Idem</i>	(5) Any natural person or corporation who or which violates subsection 8(2) of these regulations or the terms, conditions or provisions of a management plan, is guilty of an offence and is liable, on summary conviction, to a fine of \$1,000 per hectare of land cultivated in violation

of subsection 8(2), and to pay such restitution as the judge thinks fit to any person aggrieved or affected by the violation.

(6) Where a violation of any provision of these regulations or the terms or conditions of any permit, license, authorization, grass headland variance, grass headland exemption, management plan or emergency field order continues for more than one day, the offender is guilty of a separate offence for each day that the violation continues. (EC720/08)

**SCHEDULE****SCHEDULE A****ACTIVITIES WHICH A LICENSEE MAY ENGAGE IN**

**SHORE STABILIZATION** - A licensee may, for the purpose of and in the course of, doing shore stabilization, and only to the extent necessary to secure shore stabilization equipment or materials, and for no other purpose or effect, do the following:

**IN A WETLAND OR A WATERCOURSE:** engage in any of the activities listed in subsection 2(1) of the regulations, with the exception of the activities listed in clause 2(1)(e);

**IN A BUFFER ZONE:** engage in any of the activities listed in subsection 3(3) of the regulations, and in any of the activities listed in subsection 3(4) of the regulations, with the exception of the activities listed in clauses 3(4)(b), (g) and (h).

**LANDSCAPING IN A BUFFER ZONE** - A licensee may, for the purpose of and in the course of, doing landscaping in a buffer zone, and only to the extent necessary to do landscaping in a buffer zone, and for no other purpose or effect, do the following:

**IN A BUFFER ZONE:** engage in the activities listed in subsection 3(3) of the regulations, and in any of the activities listed in subsection 3(4) of the regulations, with the exception of the activities listed in clauses 3(4)(b),(c), (f), (g), and (h).

**OPERATION OF MACHINERY ON A BEACH OR SHORELINE** - A licensee may, for the purpose of and in the course of, operating heavy equipment on a beach, and only to the extent necessary to perform maintenance on an existing shore access or the removal of beach material, and for no other purpose or effect, do the following:

**ON A BEACH:** engage in the activities listed in clause 2(1)(d) of the regulations;

**IN A BUFFER ZONE:** engage in the activities listed clause 3(4)(d) of the regulations.

**MINOR BRIDGE REPAIRS** - A licensee may do minor bridge repairs in a watercourse or wetland as outlined in clause 2(1)(c) of the regulations.

**FEDERAL WHARF REPAIRS** - A licensee may, for the purpose of and in the course of, doing federal wharf repairs and only to the extent necessary to do federal wharf repairs, and for no other purpose or effect, do the following:

**IN A WETLAND OR A WATERCOURSE:** engage in any of the activities listed in subsection 2(1) of the regulations, with the exception of the activities listed in clauses 2(1)(d), (e), (g) and (h);

**IN A BUFFER ZONE:** engage in any of the activities listed in subsection 3(3) of the regulations, and in any of the activities listed in subsection 3(4) of the regulations, with the exception of the activities listed in clauses 3(4)(b), (f), (g) and (h).

(EC720/08)

**SCHEDULE B**

**NOTIFICATION FORM**

by licensee of Activity in a Watercourse, Wetland, or Buffer Zone  
pursuant to subsection 5(4) of these regulations

Subsection 5(4) of these regulations requires that a licensee must, at least 24 hours prior to commencing an alteration or activity undertaken pursuant to a license, complete this form and file it with or fax it to the Department.

Personal information on this form is collected as it relates directly to and is necessary for the required notification to perform a watercourse and wetland activity. If you have any questions about this collection of personal information, you may contact the Director of Water Management, 11 Kent Street, Jones Building, Charlottetown, PEI C1A 7N8, Phone: (902) 368-5000.

<b>Licensee</b>	
Name:	
Company:	
Phone:	Fax:
Mailing Address:	
Province:	Postal Code:
E-mail:	
<b>Project Information</b>	
<b>Type of Project:</b>	
<input type="checkbox"/> Shore Stabilization <input type="checkbox"/> Shore Stabilization <input type="checkbox"/> Landscaping in a Buffer Zone <input type="checkbox"/> Operation of Machinery on a Beach or Shoreline <input type="checkbox"/> Federal Wharf Repairs <input type="checkbox"/> Minor Bridge Repairs	
<b>Description:</b>	
<b>Date work is to Commence (dd/mm/yyyy):</b>	
<b>Property Information:</b>	
Property Owner(s) Name:	
Property Owner(s) Address:	
Property Tax #:	
Community:	County:
Work location on Property (describe):	

Licensee Signature: ..... Date: .....

**Personally deliver or fax this Notification Form to:**

Department of Environment, Energy & Forestry  
Water Management Division  
Watercourse and Wetland Activity Program  
PO Box 2000, Charlottetown, PE C1A 7N8  
4th Floor Jones Building, 11 Kent Street  
Charlottetown, PE C1A 7N8  
Tel: (902)-368-5000 - Fax: (902) 368-5830  
(EC720/08)

**SCHEDULE C**

**FORM FOR APPLYING FOR APPROVAL OF A  
MANAGEMENT PLAN**  
(Section 9 of these regulations)

**TO: THE DEPARTMENT OF ENVIRONMENT, ENERGY & FORESTRY**

**1.** Name of Applicant:.....

**2.** Address and telephone numbers of Applicant:  
.....  
.....

**3.** Location of the land: .....  
(Please attach map showing location.)

**4.** Provincial Parcel number(s):.....

**5.** Owner of the land (if different from applicant):.....

**6.** Reason for application [Check box or boxes that apply]:  
 To not require grass headlands [to come within exception in clause 7(1)(b)]  
 To be able to cultivate row crops on land with slope greater than 9% [to come within exception in subsection 8(2)]

**Signature of Applicant [and signature, address, and telephone number of landowner, if Applicant is not landowner]**.....  
.....

(Management plan attachments)  
.....  
.....  
(EC720/08)

**SCHEDULE D****INTENSIVE LIVESTOCK OPERATIONS**

[Density of Livestock - subsections 10(1) and (2) of these regulations]

<b>COLUMN 1</b>	<b>COLUMN 2</b>	<b>COLUMN 3</b>
<b>Animal</b>	<b>Animal Unit</b>	<b>Density which constitutes “Intensive Livestock Operation” more than:</b>
horses	1 horse = 1 animal unit	7 horses per acre of living space
dairy cows	1 dairy cow = 1 animal unit	7 dairy cows per acre of living space
beef cows	1 beef cow = 1 animal unit	7 beef cows per acre of living space
beef feeders	2 beef feeders = 1 animal unit	14 beef feeders per acre of living space
dairy heifers	2 dairy heifers = 1 animal unit	14 dairy heifers per acre of living space
adult sheep	4 adult sheep = 1 animal unit	28 adult sheep per acre of living space
feeder lambs	10 feeder lambs = 1 animal unit	70 feeder lambs per acre of living space
adult goats	4 adult goats = 1 animal unit	28 adult goats per acre of living space
feeder goats	10 feeder goats = 1 animal unit	70 feeder goats per acre of living space
swine	4 swine = 1 animal unit	28 swine per acre of living space
laying hens	125 laying hens = 1 animal unit	875 laying hens per acre of living space
broilers	200 broilers = 1 animal unit	1400 broilers per acre of living space
turkeys	75 turkeys = 1 animal unit	525 turkeys per acre of living space
adult foxes*	40 adult foxes = 1 animal unit	280 adult foxes per acre of living space
adult mink*	80 adult mink = 1 animal unit	560 adult mink per acre of living space

\* Offspring are not to be included until they are market size. (EC720/08)



**SCHEDULE E**

**EMERGENCY FIELD ORDER**  
pursuant to subsection 11(5) of these regulations

**WHEREAS I BELIEVE, ON REASONABLE GROUNDS, THAT**

On property located at or near .....  
County, Prince Edward Island, an activity is occurring or has occurred,  
namely.....  
.....(description  
of the activity), which activity is a violation of ..... of these regulations;

**AND WHEREAS I BELIEVE ON REASONABLE GROUNDS, THAT** time is of the  
essence for remedial action to protect the environment;

**AND WHEREAS,** I am an environment officer designated pursuant to the Act, and an  
officer pursuant to these regulations;

**I THEREFORE ORDER YOU,**

.....  
(name of person/corporation issued to), of .....  
(address of person/corporation) as

- the person committing or apparently committing the violation
- the person in charge or apparently in charge of the activity which constitutes the violation
- the registered owner of the property on which the activity is occurring or has occurred,

**TO IMMEDIATELY CEASE** the following activity  
.....  
and commence the following remedial measures.  
.....

on or before .....day, the ..... day of ....., 200....., at  
..... o'clock in the ..... (after or fore) noon.

**DATED AT** ....., ..... County, Prince  
Edward Island, this ..... day of ....., 200.....

.....  
Signature of Officer

.....  
Printed name of Officer

**SCHEDULE F**  
**WATERCOURSE, WETLAND, BUFFER ZONE APPLICATION FEE**  
**STRUCTURE**

Permits are valid for a maximum of one year from date of issue. A \$25 fee will be applied for a one-time renewal or extension (with no modifications from original permit) requested within 1 year of expiry date on original permit.

**1.1 CULVERTS AND CLEAR SPAN BRIDGES**

- (a) installation, replacement, or repairs ..... \$100  
(b) temporary stream crossings for forest harvesting ..... 100

*Note: There is no charge for the construction of a pedestrian bridge.*

**1.2 TREE OR SHRUB CUTTING IN BUFFER ZONE**

- (a) for viewscape ..... \$100  
(b) for forest improvement or approved forest management practices ..... 50

*Note: There is no charge for the cutting of 4 or fewer trees or shrubs or removal of trees that pose a safety hazard.*

**1.3 WHARF REPAIRS OR CONSTRUCTION**

- (a) when in-water works are required ..... \$100  
(b) when no in-water works are required ..... 50

**1.4 WETLAND AND WATERCOURSE ACTIVITIES**

- (a) alteration ..... \$100  
(b) enhancement or maintenance ..... 50  
(c) dredging ..... 100

*Note: There is no charge for approved stream enhancement activities performed by watershed-based groups, community improvement groups or individuals.*

**1.5 BOARDWALK CONSTRUCTION**

- (a) located in wetlands or sand dunes ..... \$100  
(b) located in buffer zone ..... 50

**1.6 DAMS AND IMPOUNDMENTS**

- (a) maintenance, repairs, drawdowns of man-made structures ..... \$100

**1.7 BEACH AND SHORELINE**

- (a) relocation or removal of seaweed ..... \$100  
(b) shoreline protection/stabilization ..... 100  
(c) stairway to beach ..... 50  
(d) boat slipway construction or repairs ..... 100

*Note: There is no charge for the collection and removal of garbage or non-natural materials or for the installation or removal of floating dock structures.*

**1.8 ACTIVITIES WITHIN A BUFFER ZONE**

- (a) landscaping in buffer zone ..... \$100  
(b) road construction in buffer zone ..... 100

*Note: There is no charge for the re-seeding of a buffer zone for agricultural purposes, or for a grass headland exemption. There also is no charge for the notching or removal of beaver dams to reduce or prevent property damage.*

**1.9 OTHER ACTIVITIES**

- (a) Other activities ..... \$50

**2.0 Fee Exemptions**

The following are exempted from the payment of fees under Schedule A:

- (a) the holder of a valid Watercourse, Wetland, and Buffer Zone Activity Certificate and valid Watercourse, Wetland, and Buffer Zone Activity Business License issued under subsections 4(2) and 5(1) of the regulations;  
(b) watershed-based groups and community improvement groups;  
(c) provincial government departments, agencies or Crown corporations.

(EC248/12)

**APPENDIX H: WETLAND CONSERVATION POLICY**

# A WETLAND CONSERVATION POLICY FOR PRINCE EDWARD ISLAND

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## Introduction

The *Wetland Policy for Prince Edward Island* is intended to complement existing legislation, regulations and operational policies protecting wetlands. All wetlands in P.E.I. currently receive some protection under Section 10 of the *Environmental Protection Act*. This policy is intended to accentuate the importance of maintaining wetland functions and values and recommends appropriate mitigation mechanisms to insure **no net loss** of wetlands and wetland function.

## Current Legislation, Regulations and Guidelines

When a development proposal is submitted to the Department of Fisheries, Aquaculture & Environment (FAE) for permit approval, it is screened to determine if it is an **undertaking**, which would trigger an *Environmental Impact Assessment*, or simply a **project**. If wetlands are potentially affected, the undertaking or project proponent requires a Watercourse Alteration Permit (Section 10, EPA). The current policy within the FAE is “avoidance” of wetlands, unless it is “in the greater public interest” such as the Confederation Bridge or concerns for public safety as in the case of highway or bridge construction. This policy of **wetland avoidance** has served to provide protection to watercourses and wetlands.

## Impacts of the Proposed *Wetland Policy for Prince Edward Island*

Despite protection given wetlands under existing legislation, permits can be issued (in the public interest) that result in the wetland loss and degradation. While consideration is given to **minimizing** damage, there is no policy in place requiring the proponent to **compensate** for the loss of wetland or wetland function and value. Under a policy of **No Net Loss (NNL) of wetlands and wetland function**, the proponent would be required to provide funding or conduct the work to replace wetland lost “in the public interest”. Wetland replacement would consider wetland function, area, type of wetland, geographic context and time frame.

The policy outlines the **mitigation** process, a hierarchical approach to wetland protection from development, starting with **avoidance** of wetlands as the top priority. In the rare case where the effects of development on wetlands cannot be avoided entirely (*for the greater public good*), such effects would be reduced to the greatest extent possible through the second step in the sequence, **minimization**. Following the **minimization** process, the proponent would be required to redress the wetland lost through the **compensation** process, the third step in the procedure.

*[Of twenty Watercourse Alteration Applications requesting the infilling of wetlands, primarily salt marsh, during the period 1996-2000, a total of eleven were approved “in the public interest”. There is only one example of voluntary compensation for wetland loss (Confederation Bridge Project) in which a small marsh adjacent to the wetland lost was enhanced in 1994. The result was still a net loss of wetland, since the wetland fill in was not replaced.]*

# **Background**

## **Wetland Functions and Values**

Wetlands perform a variety of important functions including but not limited to the following:

- Maintain ecosystem health and biodiversity by providing habitats to a wide variety of economically important fish and wildlife species;
- Form a vital link in the hydrologic (water) cycle by acting as groundwater recharge, discharge and storage reservoirs;
- Act as water purification systems by treating potentially harmful products in runoff from terrestrial sources by removing bacteria, assimilating nutrients (nitrates, phosphates, ammonia) and accumulating and retaining suspended sediments (silt).
- Contribute to productivity of rivers and estuaries by producing and exporting organic material and nutrients vital to nursery, growth and survival of valuable fish and wildlife species;
- Contribute to the global recycling of carbon, nitrogen and sulfur through anaerobic reduction which occurs in the wetland bottoms; and
- Accumulate organic matter and contribute to carbon sequestration thus acting as “carbon sinks” which aid in reducing the “greenhouse effect”.

Additional Benefits:

- Stabilize shorelines of rivers and coast; and
- Provide areas for recreation (hunting, fishing, trapping, bird watching and canoeing), food production and other commercial opportunities.

## **Consequences of Wetland Loss**

When wetlands are lost or their functions diminished, the natural capacity to filter and purify agricultural and domestic runoff is decreased. The impacts of high nutrient loads, over-enrichment (eutrophication), and oxygen depletion on rivers and estuaries are increased. Loss of in-stream wetlands increases the potential for coliform bacterial contamination of shellfish beds.

Wetland loss results in a loss of wildlife habitat and reduced productivity. Loss of wetland also decreases the ecosystem’s capacity to contribute to the recycling of carbon, nitrogen and sulfur as well as carbon sequestration.

## **History of Wetlands on Prince Edward Island**

Clearing of land during and following settlement, has resulted in an unknown loss of wetlands on Prince Edward Island over the past 350 years. Draining of salt marshes was initiated by the Acadians over 300 years ago. Undoubtedly, there was and continues to be a pattern of wetland drainage and infilling for agriculture, urbanization and shoreline cottage development. This has been offset to a degree by the development of wetlands associated with mill dams constructed by our ancestors in streams and rivers. This helped to compensate for the general lack of surface water on the Island.

More recently, numerous small wetlands have resulted from the construction of stock watering ponds and borrow pits in areas with high water tables. During the early and mid 20<sup>th</sup> Century, dams were constructed in Island streams by fish and wildlife interests. As well, farm pond programs sponsored by the federal government (ARDA) contributed to the creation of wetlands during the 1960's. Over the past 30 years, Ducks Unlimited (Canada), in cooperation with the Province and private interests, has constructed, repaired and enhanced over 100 wetlands.

The importance of the Province's wetlands has been acknowledged internationally. Malpeque Bay was recognized as a *Wetland of International Importance* in 1988 under the RAMSAR agreement, while wetlands in PEI have been secured, enhanced and managed through the North American Waterfowl Management Plan, Eastern Habitat Joint Venture since 1989.

## **Status of PEI Wetlands**

Only 29,597 hectares (5.2%) of Prince Edward Island's land base (567,215 hectares) are currently classified as wetland. Of these, 23,354 hectares (79%) are freshwater wetlands and 6,243 hectares (21%) are salt marsh. There are 1,558 bogs on the Island comprising 8,195 hectares or 35% of freshwater wetlands. These figures are derived from the 1990 wetland inventory of PEI which delineated, classified and rated 7,981 wetlands greater than 0.25 hectares. The Wetland Inventory is being updated in the *2000 Resource Inventory of Land Use and Land Cover on Prince Edward Island*.

## **Status of Coastal Wetlands**

Salt marshes are some of the most productive ecosystems on earth. They provide essential habitat and nutrients for commercially important fish species and contribute globally to carbon sequestration. However, many of PEI's salt marshes and coastal wetlands have been lost through drainage, flooding and infilling for urban, industrial or agricultural purposes. PEI has little salt marsh considering the province has 2,852 kilometres of coastline. Salt marshes continue to be threatened by coastal developments, particularly cottage subdivisions and municipal development projects. Degradation of coastal wetlands continues to occur as a result of terrestrial runoff and sedimentation.

## **Status of Freshwater Wetlands**

About 35% of 6,940 freshwater wetlands consist of bogs. Three of the Island's largest bogs at Black Banks, Bideford and Miscouche are being mined commercially for peat moss. Additional pressures have been exerted recently through interest in developing bogs for cranberry (*Vaccinium* spp.) production. An unknown quantity of freshwater wetlands has been lost through drainage and infilling during the past 350 years. Current pressures from large scale farming operations and commercial developments continue to degrade both the quantity and quality of freshwater wetlands. Degradation of wetland function from accelerated terrestrial erosion and resulting sedimentation reduces the capacity of wetlands to filter, assimilate and purify "natural" runoff from these operations with potentially harmful results downstream.

## **Wetland Management**

Responsibility for managing and protecting wetlands in Prince Edward Island rests with the Department of Fisheries, Aquaculture and Environment (FAE). FAE is also responsible for wetland habitat, bio-diversity functions and for groundwater and surface water quality and quantity.

## **Legislative and Regulatory Management of Wetlands**

FAE is responsible for provincial statutes and regulations that provide protection for wetlands. Permits issued under sections 9 and 10 of the *Environmental Protection Act* (EPA) dealing with "Environmental Impact Assessment" and "Watercourse Alterations" provide protection for wetlands. In some instances, wetlands receive additional protection under the "Watercourse Buffer Zones" section. FAE is also responsible for the *Wildlife Conservation Act* and the *Natural Areas Protection Act*, which have provisions to protect wetlands through designation, covenants and easements.

The *Planning Act* administered by the Department of Community and Cultural Affairs requires wetland buffers for all buildings, subdivisions and sewage disposal systems.

## **Policy Section**

### **Policy Objective**

The objective of the Provincial Government with respect to wetlands is:

***To promote the conservation and protection of Prince Edward Island's wetlands to sustain their ecological and socio-economic functions, now and in the future.***



## **Policy Statements**

The Provincial Government through the Department of Fisheries, Aquaculture & Environment (FAE) will:

- Utilize existing wetlands management and protection mechanisms to control development in and adjacent to wetlands, and develop new management tools as appropriate, to ensure no net loss of wetlands and wetland function;
- Promote and develop wetlands education and awareness programs;
- Promote stewardship and securement of wetlands through enhanced cooperation among local, municipal, provincial and federal governments and the private sector.

All wetlands are considered under this policy.

## **Policy Goals**

The goals of this policy are:

1. To manage human activity on or near wetlands in a manner which will achieve no net loss of wetlands and wetland function;
2. To promote and facilitate the development of wetland stewardship awareness and education through government initiatives and cooperative relationships among local citizens, stakeholder groups, the private sector, and municipal, provincial, and federal governments.

## **Guiding Principles**

- Wetlands serve numerous valuable social, economic and environmental functions.
- In recognition of the historical and on-going wetland loss, concerted efforts are required to conserve and protect remaining wetlands.
- Because wetlands and their function are inseparably linked to their surroundings, wetland conservation must be pursued through an integrated systems approach to environmental conservation and sustainable development.
- Public support is essential and can be facilitated through public education and awareness regarding the functions and values of wetlands.

## Scope and Application

This policy refers to all wetlands as defined by this policy and in the Prince Edward Island Wetland Inventory, regardless of ownership.

## Procedure

### Goal 1: Development Control

Where developments are proposed on or adjacent to a wetland the following process of **wetland mitigation** will be observed:

1. **Avoidance:** Development proposals will **avoid** wetlands. In cases where wetlands would be infringed upon, wetlands will be avoided or alternate sites chosen.
2. **Minimization:** In the rare case where, after all avoidance options are exhausted and impacts on the wetland are unavoidable, potential negative impacts on the wetland will be **minimized** to the extent possible.
3. **Compensation:** The developer (proponent) will **compensate** for any and all loss of wetland area, function and value resulting from development.

Assessments of wetland function and value, class, area, geographic location, time frame, monitoring requirements, estimates of wetland loss and recommendations for wetland compensation and associated costs will be made by a committee of wetland experts comprised of representatives of the Federal (Canadian Wildlife Service) and Provincial governments (Fish & Wildlife Division), and the major non-governmental organization involved in wetland conservation in the province (Ducks Unlimited Canada).

The committee will be charged with determining costs and recommending appropriate compensation based on accepted formulae in place in other jurisdictions in North America. The committee will be guided by the wetland mitigation sequence, mitigation principles and guidelines as outlined in the publication, *Wetland Mitigation in Canada: A Framework for Application*, published by the North American Wetlands Conservation Council Canada (Appendix I).

### Goal 2: Securement, Stewardship, Education and Awareness

The following will be followed in promoting *Securement, Stewardship, Education and Awareness*:

## Securement and Stewardship

FAE will:

- Examine the potential of restrictive covenants, easements and tax incentives as means of protecting wetlands;
- Participate in cooperative stewardship programs to protect and enhance wetlands;
- Secure wetlands through acquisition wherever possible;
- Retain ownership of all wetlands or portions thereof, presently owned by the Province; and
- Participate in cooperative projects to manage wetlands through agreements.

## Other Government Departments

Government will:

- Ensure that policies and programs of other provincial government departments are consistent with and supportive of the objective of this policy

## Education and Awareness

FAE will:

- Promote and assist in the development of wetland education programs which target the general public, public schools, landowners and other stakeholders;
- Support and encourage the development of cooperative educational programs with the private sector; and
- Encourage the exchange of information and expertise among government departments and other jurisdictions regarding wetland issues.

## **Definitions**

### ***Avoidance***

The prevention of impacts on wetlands, either by choosing an alternate project, alternate design or alternate site for development.

### ***Compensation***

Action taken as the last resort in the sequence of wetland mitigation, and consists of measures taken to offset losses of wetland, and wetland functions and values which remain after all possible minimization measures have been applied. It consists of wetland

creation, reconstruction, restoration or replacement and is an essential component in a **no net loss** policy.

### ***Infringe Upon***

For the purposes of this policy, ***infringe upon*** refers to activities that occur within the limits currently stated as setback distances or buffers on wetlands under current regulations and legislation in the *Environmental Protection Act* and *the Planning Act*, respectively.

### ***Minimization***

The reduction of adverse effects of development on the functions and values of wetlands, at all project stages including planning, design, implementation and monitoring to the smallest practicable degree.

### ***Mitigation***

A process for achieving wetland conservation through the application of a hierarchical progression of alternatives to the adverse effects of development, which include:

- (a) **Avoidance** of impacts;
- (b) **Minimization** of unavoidable impacts; and
- (c) **Compensation** for impacts that cannot be avoided.

### ***No Net Loss***

No Net Loss (NNL) means no net loss of wetland area and function.

### ***Restoration***

Returned from a disturbed or totally altered condition to a previously existing natural or altered condition by some human action. Restoration refers to a return to preexisting conditions. However, in many situation restoration efforts do not result in the original condition, but to a more realistically achievable “natural” condition.

### ***Wetland***

“Wetland” means lands commonly referred to as marshes, salt marshes, swamps, bogs, flats and shallow water areas that are saturated with water long enough to promote wetland or aquatic biological processes which are indicated by poorly drained soil, water-tolerant vegetation, and biological activities adapted to a wet environment.

### ***Wetland Classes***

1. **Open Water:** Refers to wetland with water depths of one to three metres (3 to 10 feet), associated with any of the other wetland classes, but usually with deep or shallow marshes. Submergent and surface vegetation are dominant.
2. **Deep Marsh:** This class applies to wetlands with an average water depth between 6 in. and 3 ft. (10 cm. and 1 m.) during the growing season. Emergent

marsh vegetation is usually dominant, with surface and submergent plants present in open areas.

3. **Shallow Marsh:** This class applies to wetlands dominated usually by robust or marsh emergents, with an average water depth less than 6 in. (15 cm.) during the growing season. Surface water may be absent during the late summer and abnormally dry periods. Floating-leaved plants and submergents are often present in open areas.
4. **Seasonally Flooded Flats:** This class applies to extensive river floodplains where flooding to a depth of 12 or more inches (30 cm.) occurs annually during late fall, winter and spring. During the summer, the soil is saturated, with a few inches of surface water occurring locally. Dominant vegetation usually is emergent, but shrubs and scattered trees may be present.
5. **Meadow:** This class applies to wetland dominated by meadow emergents with up to 6 in. (15cm.) of surface water during the late fall, winter and early spring. During the growing season the soil is saturated and the surface exposed except in shallow depressions and drainage ditches. Meadows occur most commonly on agricultural land where periodic grazing or mowing keeps shrubs from becoming established.
6. **Shrub Swamp:** This class applies to wetlands dominated by shrubs where the soil surface is seasonally or permanently flooded with as much as 12 in. (30 cm.) of water. Sedges are often the ground cover under shrubs with meadow emergents occupying wetter areas.
7. **Wooded Swamp:** This class refers to wetlands dominated by trees growing in a muck soil. The soil surface may be seasonally flooded with up to 1 ft. (30 cm.) of water. Several levels of vegetation are usually present including trees, shrubs, and herbaceous plants. In mature wooded swamps, differences in elevation may result in pronounced micro-habitats (micro topography), where trees and shrubs occupy the drier areas whereas marsh emergents and ferns may occupy the ephemeral pools of standing water.
8. **Bog:** This class applies to wetlands where the accumulation of *Sphagnum* moss, as peat, determines the nature of the plant community. Young bogs commonly have floating peat mats that creep outward from shore over the surface of open water. *Picea mariana* and *Larix laricina* are typical tree species. *Chamaedaphne calyculata*, *Kalmia angustifolia*, *Sarracenia purpurea*, and *Eriophorum* spp. are characteristic plants found in bogs throughout the Northeast.

### ***Wetland Function***

The natural properties and processes (physical, chemical or biological) associated with wetland ecosystems. Wetland functions include the natural processes and derivation of

benefits and values associated with wetland ecosystems including economic production (e.g. peat, agricultural crops, wild rice, peatland forest products), fish and wildlife habitat, organic carbon storage, water supply and purification (groundwater recharge, flood control, maintenance of flow regimes, shoreline erosion buffering), soil and water conservation, as well as tourism, heritage, recreational, educational, scientific and esthetic opportunities.

***Wetland Values***

Benefits that accrue to humans as a result of natural wetland functions. These include the natural processes and derivation of benefits and values associated with wetland ecosystems including economic production (e.g. peat, agricultural crops, wild rice, peatland forest products), fish and wildlife habitat, organic carbon storage, water supply and purification (groundwater recharge, flood control, maintenance of flow regimes, shoreline erosion buffering), soil and water conservation, as well as tourism, heritage, recreational, educational, scientific and esthetic opportunities.

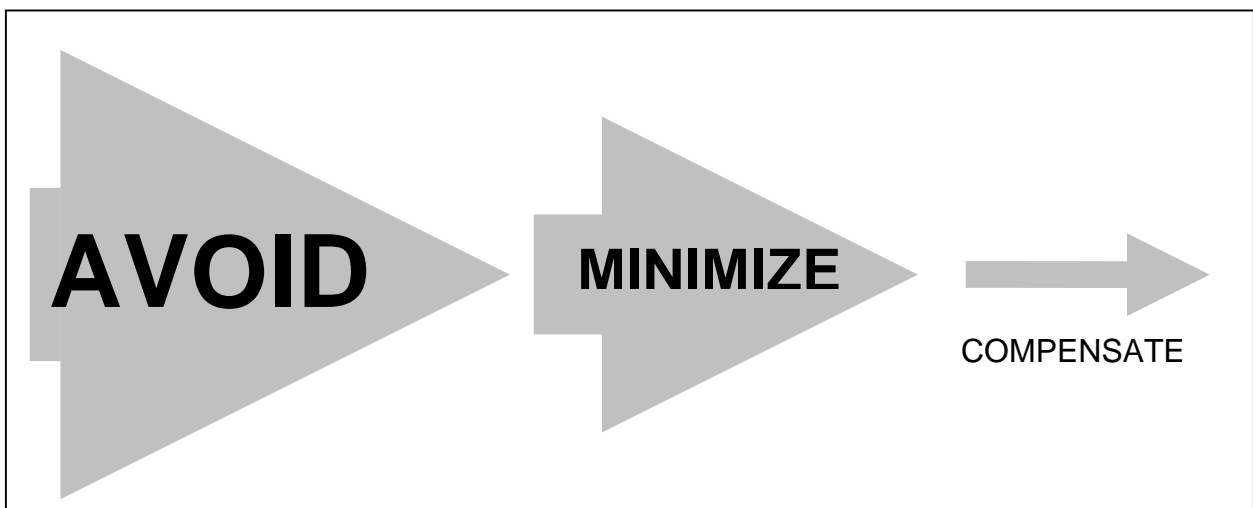
## APPENDIX I

*Adapted from: "Wetland Mitigation in Canada – A Framework for Application," Issues Paper, No. 2000-1. North American Wetlands Conservation Council (Canada), Ken Cox & Allison Grose Eds. 93pp.*

### The Wetland Mitigation Sequence

The sequence described below should be followed if the mitigation process is to be successful as a tool for wetland conservation (See Figure 1). In particular, the first two steps of the sequence should not be skipped for the sake of expediency. The steps between each stage should be perceived as huge barriers that are only to be breached in rare circumstances.

**Figure 1. Diagram of the mitigation sequence.**



The first step, **avoidance**, involves the prevention of impacts, either by choosing an alternate project, alternate design or alternate site for development. It is the first, best choice of mitigation alternatives. Because it involves prevention, the decision to avoid a wetland or to redesign a project so that it does not affect a wetland must be taken early in the planning process. It may be the most efficient, cost-effective way of conserving wetlands because it does not involve minimization, compensation or monitoring costs. It also avoids the uncertainty inherent in minimization or compensation activities that may not be successful because of the relatively undeveloped state of the science. It should be the choice in situations where cumulative impacts in a specific area exceed a certain threshold, and where impacts of even a small magnitude will result in significant negative effects.

The next step, **minimization**, should only be taken once the decision has been made that a project must proceed, that there are no reasonable alternatives to the project, and that there are no reasonable alternatives to locating the project on a wetland. Minimization involves the reduction of adverse effects of development on the functions and values of wetlands, at all project stages (including planning, design, implementation and monitoring), to the smallest practicable degree.

**Compensation** is the last resort in the mitigation process, and indication of failure in the two earlier steps. It should only be considered for residual effects that were impossible to minimize. Compensation refers to a variety of alternatives that attempt to “make up for” the unavoidable loss of or damage to wetland functions and values, usually by improving wetlands off-site from the development. Preferred methods include restoration and enhancement of wetlands, although the creation of a new wetland would also be a potential compensation method. Securement of a wetland alone would not normally be considered adequate compensation because it would not result in the replacement of lost or damaged wetland functions, but only in the protection of an existing wetland. However, there may be situations in which a combination of securement and other compensatory measures may be appropriate. Compensation may also include, but should not be limited to, the financing of wetland-related activities such as research and education.

There may be a tendency on the part of both government and industry to take the expedient route and go straight to compensation rather than deal with potential impacts in the design stage or through avoidance. Large developers may prefer to pay for functional losses with a cash settlement or technological “quick fix.” For example, it may be easier to pay for a fish hatchery rather than prevent or minimize damage to a spawning habitat. It is often in the company’s best interest to find a quick solution, write off costs, and proceed with the project. However, environmental impacts are seldom resolved by this approach.

Mitigation banking is a compensation alternative in the U.S., although not, so far, in Canada. However, inevitably any discussion about mitigation raises the question of whether mitigation banking has a role to play. Historically, the U.S. experience has not been positive, for a number of reasons. Mitigation banking does allow for some flexibility, and it also allows for compensation dollars to go to priority sites. However, it can also encourage a “commodity” approach to conservation wherein wetlands are traded for cash. Perhaps more importantly, it places emphasis on compensation rather than avoidance or minimization, and allows the mitigation process to be circumvented. For these reasons, it is recommended that mitigation banking as it is conventionally defined, does not become part of mitigation in PEI. As an alternative, advance planning that identifies priority wetland areas and directs compensatory funding to these areas, is recommended.

It should also be noted that the science supporting some aspects of wetland mitigation is not well developed, and contains a degree of uncertainty and inherent risk, particularly as it relates to wetland replacement and creation. Because of this, monitoring is an integral



part of mitigation. While not strictly a stage of the mitigation process, monitoring must occur to determine success or failure of minimization and compensation efforts so we can learn from our mistakes. In any mitigation package that is negotiated, monitoring must be included within both minimization and compensation activities. Monitoring costs should also be factored in to project costs.

## **Mitigation Principles**

A clear set of broadly applicable principles is required for wetland mitigation in Prince Edward Island. Principles, which embody “fundamental truths,” give an underpinning philosophy or perspective. They should be broadly applicable in all situations and should not only be provincial but national in scope. Sixteen such principles are listed below.

1. Wetlands are one of the most productive ecosystems on earth, and are an integral component of PEI’s landscapes, providing significant environmental, social, cultural and economic benefits. These benefits make wetlands a priority for conservation efforts.
2. Mitigation is a component of a broader approach to wetland conservation that should include policy, advance planning, protection, environmental assessment, stewardship, wetland inventory and monitoring, and research.
3. Mitigation is a process, which should begin with avoidance, proceed through minimization only if avoidance is not possible, and consider compensation only as a last resort.
4. The mitigation process and appropriate mitigation measures should be applied to all stages of a project: from planning, siting, and designing, through implementation and monitoring.
5. Wetland mitigation policies and actions should be consistent with the goals of both Canada’s and PEI’s national and international conservation agreements including the World Conservation Strategy, the Convention on Biological Diversity, the Convention on Wetlands of International Importance (Ramsar 1999) the North American Waterfowl Management Plan and the North American Bird Conservation Initiative.
6. Mitigation should be consistent with local policies, legislation and standards, and flexible enough to address social, economic and environmental variability across PEI. This is most likely to be achieved with the participation of all stakeholders.
7. Mitigation must be sustainable from an environmental, social and economic perspective.

8. Policies, guidelines and procedures should be applied in a consistent and equitable manner with respect to all sectors, levels of government and interests.
9. Wetland conservation through the mitigation process should be planned on an ecosystem basis and in a landscape context to minimize risks to the diversity and integrity of wetland-supported ecosystems, and to enable consideration of cumulative and downstream effects.
10. Sustaining the full range of wetland functions and values is the primary focus of mitigation processes.
11. Measures undertaken to restore or replace wetland functions and values should be ecologically sound and supported by the best available scientific information.
12. Monitoring should be considered an essential component of wetland mitigation efforts. It is required to ensure that:
  - a. mitigation measures are implemented in accordance with approved designs;
  - b. the effectiveness of the measures is assessed; and
  - c. contingency measures are in place, should the measures not achieve the design objective.
13. The mitigation process must be transparent, accessible, timely and efficient. Mitigation solutions should be reasonable – cost effectiveness should be a consideration in negotiating mitigation packages.
14. There is a need for change in Islanders’ perception of wetlands. Public awareness of wetland functions and values and the benefits they provide to society will be key to encouraging community support for mitigation measures.
15. No one group should be expected to bear the entire burden of policy decisions regarding mitigation. There must be some consideration of what constitutes an equitable sharing of costs among, for example, proponents of the development, beneficiaries of the development, and the beneficiaries of wetland conservation in general, i.e. “society.”

### **Mitigation Guidelines**

A set of guidelines is the foundation of a conceptual model for wetland mitigation on Prince Edward Island. Guidelines help by giving advice, directing the process, and providing a conceptual framework.

### ***Avoidance Guidelines***

Avoiding the impacts of developments on wetlands is the most efficient and effective mitigation strategy. It is also the simplest and most straightforward to understand. For this reason, even though avoidance is the most favoured choice among the alternatives, it has the least space in this document. Accordingly, four guidelines to direct when avoidance is the appropriate choice follow:

1. Avoidance should always be considered as the first alternative for any development that could potentially affect a wetland.
2. Avoidance should be the only choice where the wetland concerned is of local, provincial, regional, national or international significance.
3. Avoidance should be the choice in areas where wetland losses of a large magnitude have already occurred, or where cumulative losses have already reached the point where losses of a small magnitude will have a significant effect.
4. In cases where effects on a wetland are such that losses of values and benefits are significant, and where minimization cannot ameliorate these effects, development should be avoided.

### ***Minimization Guidelines***

There will be some cases in which developments on wetlands cannot be avoided entirely, and in such cases effects should be minimized to the greatest extent possible. The following 10 guidelines are proposed to determine minimization procedures and measures:

1. National mitigation guidelines should be adapted to suit specific requirements in PEI. Detailed mitigation standards and procedures for some activities have been developed nationally by industry and government, and are being applied in progressive industries to guide operations. More work is needed to refine guidelines for sectoral activities and to develop innovative mitigation technology.
2. Procedures and techniques should be based on sound ecological principles and the science available.
3. Proven measures are preferred over new or experimental techniques. New and experimental approaches should only be considered where proven techniques cannot be applied satisfactorily. They should, however, be carried out on a pilot basis and monitored to assess effectiveness.
4. Monitoring is required to evaluate the outcome of mitigation applications. The cost of monitoring should be factored in to any mitigation process.

5. An iterative or adaptive approach should be taken to improve knowledge and effectiveness of mitigation measures over time.
6. Procedures, technologies and applications should have some flexibility to address local concerns and conditions.
7. Minimization techniques should take natural succession into account, and should provide for environmental variability over time.
8. Minimization measures should remain functional as long as the project has reasonable potential to impact the environment.
9. Small-scale measures that can help control cumulative wetland losses should be implemented.
10. Incentives should be used to encourage the adoption and use of mitigation technologies in industry, governments and among private landowners.

### ***Compensation Guidelines***

Although compensation is the last resort in the mitigation process, inevitably there will be cases in which developments will go ahead on wetlands, and minimization efforts will be insufficient. In these cases, the following 12 guidelines are proposed to determine appropriate compensation:

1. Compensation requirements should be determined on a case-by-case basis, and should be prioritized, based on function/functional area, type of wetland geographic context and time frame, etc.
2. The preferred method of compensation for wetland functions is restoration or enhancement of other degraded wetland habitats, and then creation of replacement wetlands.
3. Functional losses should be restored in the following order of priority:
  - a. on-site,
  - b. as close to the site as possible,
  - c. in the same ecosystem.
4. Functional losses should be restored first in the same wetland type, or second, with another wetland type.
5. Compensation ratios are justified based on the inherent uncertainty of replacing the loss of wetland functions. Ratios may be greater than 1:1 (wetland

restored/recreated to wetland lost), depending on the degree of uncertainty with respect to replacement of the lost functions. Compensation ratios should be negotiated both for wetlands directly impacted by the development, i.e. within the development “footprint,” and for those areas indirectly affected.

6. Compensation for impacts on the social and cultural values of wetlands may include, but should not be restricted to, financial compensation to be used for activities appropriate to the site. These may include building public access facilities and interpretive centres, developing public education materials, or conducting research. Financial compensation should only be considered as an option if the restoration/enhancement/creation of a wetland will not replace the lost social and cultural values. Financial compensation does not have to involve an exchange of dollars.
7. The cost of physical replacement and societal value can provide a basis for estimating financial compensation where such compensation is appropriate.
8. Compensation measures should have at least as much resilience to environmental change as the habitat they replace. They should remain effective throughout the lifetime of the project and beyond.
9. Compensation requires monitoring the outcome of measures undertaken to replace or restore wetland functions. The monitoring process should be transparent and accessible to the public.
10. Proponents should demonstrate the efficiency and effectiveness of compensation measures in terms of replacing wetland functions.
11. An iterative approach, based on scientific evaluation, is needed to improve the reliability and performance of compensation measures. Adaptive approaches should be designed to reduce uncertainty with respect to mitigation options.
12. The science supporting wetland compensation is not well developed and contains a degree of uncertainty and inherent risk. However, the fact that this science is still developing should not prevent decisions being made, based on the best science available.

**APPENDIX I: BEAVER POLICY**

A photograph of a beaver swimming in a stream. The beaver is the central focus, with its head and front paws visible above the water. The background is filled with lush green foliage, creating a natural setting. The text is overlaid on the image.

# **BEAVER MANAGEMENT POLICY**

**Department of Environment Energy and Forestry  
PRINCE EDWARD ISLAND  
(January 25, 2011)**

## **PURPOSE**

Beaver is a keystone species which can significantly change habitat and impact the environment. This policy recognizes both the positive and negative impacts of beaver. Its primary objective is to take an integrated management approach to beavers thus maintaining diverse, healthy, productive fish and wildlife populations and minimizing human conflicts.

## **BEAVER BIOLOGY**

Beavers construct dams for protection, to gain access to food (poplar, willow, etc.) and to provide a means of storing their winter food. They normally breed at three or four years of age and produce an average litter of four kits. Their later maturation, low productive rate and ease of location make them vulnerable to over exploitation. This has happened historically over much of the original range. On the other hand, beavers are relatively long-lived and once a population is established, it can spread quickly over large areas.

Prince Edward Island has gentle topography, small watersheds and has the highest density of people and more roads per capita than any other province in Canada. This presents unique challenges in managing healthy beaver populations and minimizing conflicts.

## ***IMPORTANCE OF BEAVERS and BEAVER DAMS***

- Provide significant wetland habitat for a variety of birds, aquatic mammals, fish, amphibians and countless invertebrates and plants.
- Increase in both economic value and recreational value to hunters, trappers, anglers and non consumptive users from the impounded waters and the resulting increase in numbers and diversity of wildlife.
- Create nursery areas for trout.
- Provide natural water purification, which includes but is not limited to filtering out silt and uptake of nitrogen from water column.
- Official emblem of Canada and symbol of the sovereignty of Canada (1975).

## ***ISSUES CREATED BY BEAVERS and BEAVER DAMS***

- Block culverts which may result in damage to highways and other infrastructure.
- Flooding and cutting trees can cause property damage.
- Dams can block fish passage and alter fish habitat in the area flooded (sedimentation).
- Some impounded water can warm to temperatures detrimental to fish.
- Limited social tolerance for dams and associated flooding.

## **LEGAL FRAMEWORK**

Beavers and beaver dams are protected under the *Wildlife Conservation Act*. Beaver removal requires a trapper's license during the open season with strict regulations on the types of traps or snares used and the manner in which they are set. Nuisance animal permits can be issued during the closed season and additional restrictions may be applied. Trapper's licences and nuisance permits are issued by the Forests,



Fish and Wildlife Division of the Department of Environment Energy and Forestry. In all cases landowner permission is required to trap beaver under the *Trespass to Property Act*.

All watercourses and wetlands, which include beaver dams, are protected under *the Environmental Protection Act*. A license or a watercourse/wetland activity permit, issued by the Water Management Division of the Department of Environment Energy and Forestry is required in order to remove active and abandoned beaver dams. The Prince Edward Island Watercourse or Wetland Alteration Guidelines outline the approved procedure for the legal removal of beaver dams. Permits should only be issued after approval has been given by the Forests, Fish and Wildlife Division.

The *Fisheries Act*, which is administered by the Federal Department of Fisheries and Oceans (DFO) and protects fish and fish habitat. A provincial watercourse /wetland activity permit is issued in cooperation with DFO. If the activity was deemed to be harmful to fish or fish habitat a separate permit issued by DFO would be required.

Failure to comply with any of these Acts or regulations can lead to large fines and possible time in jail.

## **MANAGEMENT GOALS**

The Department of Environment Energy and Forestry will provide a leadership role in managing beavers. The success of this policy depends on long term planning and monitoring and the cooperation of all stakeholders to meet the management goals in order to:

1. Maintain wildlife diversity and habitat through beaver management
2. The continuation of the beaver as an integral part of the fur industry in PEI
3. Increase the number of community based watershed groups incorporating beaver management into their long term watershed management plans
4. Reduce infrastructure damage caused by beavers
5. Address water quality issues related to beaver dams
6. Maintain fish passage for anadromous fish in critical habitat/priority sites

## **OPERATIONAL POLICY**

The Department recognizes that there are short term fixes for localized conflicts but the success of this policy is dependent on long term management plans with long term solutions. The Department also recognizes the importance of all stakeholders providing information resulting in detailed management plans. Stakeholders must be active participants in the planning and implementation and monitoring process. In order to achieve the management goals the Department of Environment Energy and Forestry will:

- Improve communication between the Department of Environment Energy and Forestry and all stakeholders to effectively and efficiently deal with issues related to beaver management.
- Review each plan involving input from biologists with the Forests, Fish and Wildlife Division and may involve input from the PEI Trappers Association, Department of Fisheries and Oceans
- Provide expertise through the Forests Fish and Wildlife Division to all interested parties in the development of acceptable beaver management plans.

- Ensure that beaver removal is done in a humane and timely fashion
- Ensure that beaver dam removal is done in at a time and manner in which it will cause the least environmental damage and minimal negative impact on associated wildlife and in accordance with the “The Prince Edward Island Watercourse” or Wetland Alteration Guidelines.
- Proactively educate stakeholders and the general public on the important role that beavers play in the environment.
- Assess each watershed regarding its suitability for beaver and the impact of beaver impoundments on overall watershed objectives.
- Increase the number of people trapping beavers in areas of concern by qualifying new trappers through trapper education courses.

## **CONCLUSION**

The Department of Environment, Energy and Forestry, is responsible for managing Beavers on Prince Edward Island. In order to be successful this policy recognizes:

1. The Forests, Fish and Wildlife Division professional expertise in managing beaver;
2. The need for cooperation between the diverse group of stakeholders who are impacted by beaver activities in order to develop management plans that address the issues;
3. The importance of beaver to Prince Edward Islands as a keystone species which can significantly change habitat and impact the environment.

**APPENDIX J: GUIDELINES RESPECTING THE MANAGEMENT OF  
IMPOUNDMENTS IN PRINCE EDWARD ISLAND**

# Guidelines Respecting the Management of Impoundments on Prince Edward Island

May 14, 2009



Glenfinnan Pond, PEI



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada



Environment,  
Energy and Forestry

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The Minister of Fisheries and Oceans Canada and the Ministers of Fisheries and of Environment in the Province of Prince Edward Island signed a Memorandum of Understanding (MoU) to improve co-operation on Fish Habitat Management on September 26, 2002. The purpose is to promote increased co-operation between the two levels of government to manage fish habitat in Prince Edward Island efficiently, effectively and consistently.

The MoU established a management committee to implement the MoU and key activities and priorities. Priorities included improved coordination of work activities, efficient and timely decision making. The development of protocols that clarify organizational roles and responsibilities, and the processes and procedures to carry out activities was also a priority.

An initial activity identified was to update the Prince Edward Island Watercourse and Wetland Alteration Guidelines, while incorporating the national operating statements from Fisheries and Oceans Canada into the project activities. All key activities or works that would be considered for an alteration permit in or near water were described in this document, including a section on Impoundments.

In 1998, guidelines to manage impoundments on Prince Edward Island were developed in an effort to provide consistency and reduce the assessment period for proposals involving impoundments. Progress on this review was presented to the management committee and it was recommended that a scoping document be prepared co-operatively by staff of Fisheries and Oceans Canada, Prince Edward Island Department of Environment, Energy and Forestry and Ducks Unlimited Canada.

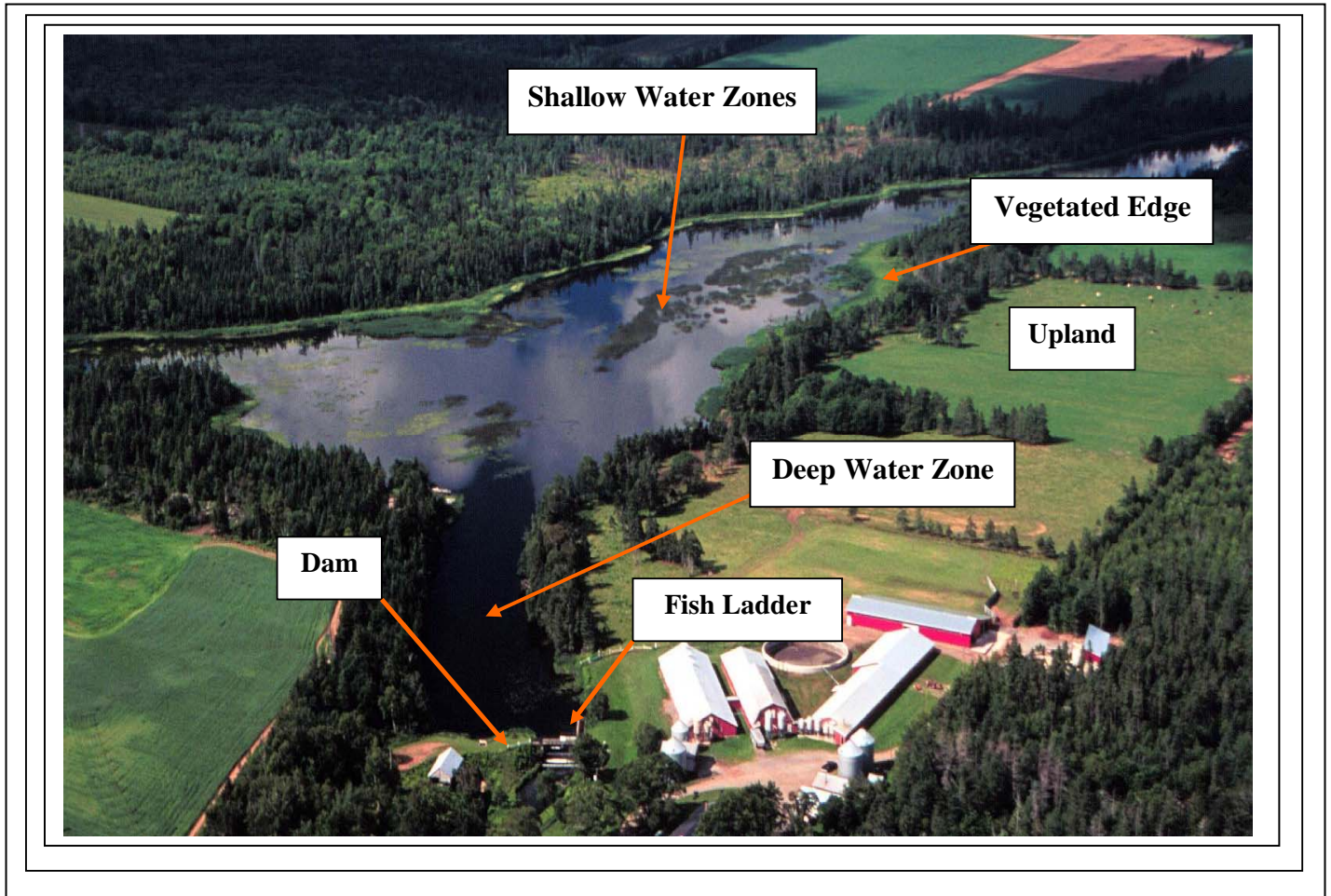
The 1998 guidelines were developed as a response to emerging issues regarding impoundments throughout Prince Edward Island. As issues varied from water quality concerns related to fish habitat to the value of these impoundments for recreation or other wildlife, an attempt was made to score impounded wetlands on fishery, productivity and community values scale.

Out of this initiative, a great deal public consultation was sought and a draft for an Impoundment Management Guideline was developed. This guideline document was vetted in its final draft form at a public meeting in April 1998. This draft became the reference document for regulatory agencies when applications were received for review, although it was never adopted in a more formal manner.

Although progress was made in developing this draft, the process involving three scoring systems was cumbersome and in the end did not definitively provide clear direction. Since 1998, a number of changes have occurred. First, there has been a shift in focus by conservation agencies from the construction of new impoundments toward the better management of existing impoundments. Many impounded wetlands are also approaching the need for re-construction or decommissioning and this was not dealt with in detail in the original guideline document. The regulatory agencies decided that there was a need for a revised guideline to respond to the current issues. The following document represents that effort and is expected to be considered and accepted by senior management as a reference document when considering applications for activities involving Impoundments on Prince Edward Island.

**TYPICAL IMPOUNDED WETLAND**

(Officer's Pond, Suffolk, PEI)





Prince Edward Island has a long history of constructing impoundments. European settlers impounded streams to harness energy to be used for the operation of saw, grist, woolen, and starch mills. Some were later used for small scale electrical generation. Impoundments were also built to provide a source of water for agricultural purposes. Regardless of the original purpose, the general public also valued most of these impoundments for recreational purposes such as hunting and fishing, or simply for aesthetic appeal.

Farm impoundment programs sponsored by the federal government through the *Agriculture and Rural Development Act* (ARDA) contributed to the creation of wetlands during the 1960's. Beginning in the 1970's, a number of privately owned millponds were at, or near, their life expectancy. Many were acquired by the Province to ensure public access to the wildlife resource associated with these ponds. With management rights to these pond sites, the Province replaced the wooden dams with concrete water control structures, often incorporating "drawdown" capability and fish passage facilities. Water depths were set to maintain habitat primarily for brook trout, waterfowl and other wildlife species. Ducks Unlimited Canada often partnered with the Province in these ventures through the 1970 – 90's.

There are two main objectives to the Guidelines Respecting the Management of Impoundments on Prince Edward Island.

- i. To develop a guide to assist regulatory agencies to assess man-made impoundments and the resulting flooded zones with the intent to manage these impoundments for the benefit of fish, wildlife and people within the context of watershed planning.
- ii. To provide a consistent standard for landowners and managers to manage impoundments on PEI.



Currently, there are approximately 550 impoundments on Prince Edward Island, of which 115 are managed, either solely or cooperatively, by the Province and/or Ducks Unlimited Canada. Impounded wetlands represent 6.4% of the total number of wetlands on Prince Edward Island and 11.9% of total wetland area on PEI, occupying approximately 3830 hectares.

**Wetlands in Prince Edward Island**

Dominant Wetland Class	Number of Wetlands	Number of Wetlands in Size Range				Total Area (ha)
		< 10 hectare s	10 – 25 hectare s	25 – 75 hectare s	> 75 hectare s	
Salt marsh	1185	1021	105	49	10	6843
Open water	1427	1349	51	20	6	3647
Deep marsh	649	569	61	14	5	3263
Shallow marsh	361	349	9	2	1	666
Meadow	1562	1549	12	1	0	1930
Wooded or shrub swamp	1863	1701	116	39	7	8088
Bog	1506	1349	105	42	10	7834
<b>Total</b>	<b>8553</b>					<b>32271</b>



Scale's Pond, PEI



Wetlands are areas that are wet for part or all of the year. Wetlands are often referred to as ponds, marshes, swamps or bogs. Wetlands may be found in low areas and or depressions, but in other areas they may be found in high ground with steep slopes that may have poor drainage, or in high ground between stream drainages. Regardless of the location, the area must be wet long enough to alter soil properties and create biological changes. This provides a favorable habitat for plants that are capable of withstanding long periods of high moisture and will allow them to function as an organic and inorganic nutrient sinks. Ample water is a feature required for some plants to establish, while other plant species have adapted to year-round moisture, which can result in oxygen depletion at the water soil interface. Wetlands often provide an opportunity for plant species transition from land-based to aquatic plant species, and are often considered to be the most productive ecosystem on earth.

### **Ecological Functions**

Wetlands can transform many of the common pollutants that are discharged from any watershed, and may be converted into harmless byproducts. Despite the depletion of oxygen at the benthic level, wetland ecosystems are likely to have a very high level of biological activity. There are several activities occurring within a functioning wetland including: sedimentation, photosynthesis, fermentation, nitrification, denitrification and microbial phosphorus removal. Some of these activities are physical, while others may be biological or microbial in nature, but all of them serve to reduce the impact of pollutants in the wetland area and any adjacent watercourses. Although wetland vegetation plays an important role, it represents only five percent of the utilization of incoming nutrients.

Wetlands have the capacity to convert these nutrients and byproducts from some upland activities into plant matter by collecting the energies from the sun and the biochemical reactions that occur within this environment.

Recently wetlands have been threatened by industrial, municipal and transportation demands encroaching on these areas to expand their interests. Unfortunately, the benefits of wetlands are not widely appreciated by all public sectors. Fourteen percent of Canada's land mass is comprised of wetlands found along the shores of rivers and along the banks of our oceans. Excessive inputs to wetlands may increase eutrophication and cause changes in water quality, limit habitats and limit biodiversity. Wetlands play an important role in the removal of pathogenic bacteria. This is achieved via a combination of factors such as; die off, temperature, UV light (sunlight), water chemistry, predation and sedimentation. Wetlands have been shown to provide removal rates of up to 80 to 90 % of pathogenic bacteria, but results may vary with abundance of wildlife in the area and input values.

Many of these processes are not well understood and wetlands have only recently been recognized for their capacity to treat industrial and municipal wastewaters. These treatment wetlands are now being developed as a way to polish wastewaters and domestic wastes. This technology has limits and may create biological oxygen demand (BOD) that can not be assimilated within a wetland. Wastewaters may come from sources that are untreated and contain very high sediment loads and can inundate the wetland, thereby interfering with its function. On Prince Edward Island, impoundments face unique conditions where extremely high levels of sediments and nutrients move

from upland areas into streams and deposit in impoundments.

The creation of an impoundment changes flowing water or “lotic” habitat to standing water, or “lentic” habitat. This change can have profound impacts on fish habitat. Impounding water increases the surface area exposed to solar radiation, thereby increasing summer water temperatures. When fish become stressed due to high water temperatures, they seek refuge in springs or areas of groundwater upwelling. High concentrations of fish in these refuge areas can leave fish vulnerable to angler harvest and mammalian/avian predation, and allow easy transmission of parasites, such as gill lice.

Some impoundments with high summer water temperatures experience periods of depressed oxygen levels, particularly in the lower regions of the water column. This may force fish to move out of an impoundment.

Water quality under ice cover can also be compromised in impoundments due to decreased photosynthesis under ice and decomposition of organic matter leading to oxygen depletion or anoxia and accumulation of toxic hydrogen sulfide.

The physical change from lotic to lentic habitat can also have negative impacts on salmonids. Issues with physical blockage range from impoundments without fish passage, the difficulty of designing fish passage for all species to the ongoing maintenance of the structure. The creation of an impoundment can destroy salmonid spawning areas.

Impoundments provide areas for sediment deposition. While this may

help to protect fish habitat downstream, the accumulation of sediment can adversely affect salmonid habitat and significantly shorten the life of the impoundment.

### **Fish and Wildlife Value**

Impoundments constitute a significant portion of the high quality open water habitat in the province. Impoundments provide easy access to fishing areas for recreational angling for species such as brook trout, rainbow trout, and salmon. Other fish species which may be present in the wetland include American eel, rainbow smelt, gaspereau, white perch, and sticklebacks. Fish species are a food source for wildlife species within the area.

Impoundments are busy places, full of wildlife and activity. Common sites in these marshlands are dense stands of plants such as cattails and bulrushes. Other emergent plants characteristic of marshes include water arum, reeds, and sedges. Common floating and underwater plants include the water lily, duckweed, and pondweed. This lush vegetation provides food for countless numbers of creatures including mammals, birds and amphibians.

Wetlands attract a wide variety of animals, ranging from muskrats to diving beetles. These habitats provide prime breeding and rearing habitat for many species of birds, such as black ducks, pied-billed grebes and red-winged black birds. With the exception of a few freshwater wetland complexes located along the coast and beaver ponds located inland, most of the waterfowl that breed on Prince Edward Island (PEI) utilize impoundments. The change in our upland areas from forested to agricultural land along with the presence of impoundment has increased the numbers of wigeon, gadwall and mallard

species. A variety of other birds, such as songbirds (yellow rumped warbler), raptors (marsh hawk), and aquatic birds (great blue heron) are dependent on impoundments for nesting and foraging. In the absence of impoundments, PEI would be supporting far fewer aquatic birds.

Other wildlife also abound in these wetlands. Many amphibians rely on marshes for breeding habitat. Each year, several species of frog and salamander migrate by the thousands from their forest homes to marshes to mate and lay their eggs. The young hatch and mature in impoundments before returning to land as adults. Mammals such as muskrat, mink and red fox use these wetlands extensively.

### **Social Benefits**

The impoundments created by the construction of impoundments in PEI watercourses have provided a variety of social benefits historically, and continue to do so today. However, the quality of some of these benefits has diminished over time. Many of the early impoundments were created for industrial or commercial purposes including agricultural use. Some were constructed primarily for the recreational angling of speckled trout. Regardless of the primary purpose, these areas often increased the biodiversity of the landscape by creating wildlife habitat, and secondary benefits to people, in addition to angling, included excellent opportunities for hunting and trapping. The impoundments also provided areas for recreational pursuits such as boating and bird watching in summer, skating and hockey in winter, and a ready supply of water for fire protection. All of these social benefits, combined with a pleasant and attractive scenic appeal, have led to a strong public identity with their local impoundment that remains today in many Island communities.



### **Structural Integrity**

Early designers and builders often used earthen berms or wooden water control structures, or a combination of the two, and occasionally concrete was used. Modern engineering techniques were rarely used, and as a result, many of these structures were prone to and often did “wash out”. Provision for the movements of anadromous fish species was rarely considered and blocked access for these species to habitat upstream of the structure.

In the early part of the 1900’s, newer and more efficient technologies rendered most of these impoundments redundant, although many still remained useful by providing the secondary benefits noted above. By the 1970’s, the structural deficiencies of many of these impoundments became apparent and regulators began to require fitting engineering standards into new construction or repairs, where needed, to existing impoundments. Wooden water control structures were replaced with concrete structures, and these newer designs accommodated extreme flow events, and provision for fish passage was included where deemed necessary. Meanwhile, other impoundments were simply abandoned. During this period the Province and DUC often replaced existing impoundments or constructed new ones with more appropriate designs.

### **Internal Ecological Processes**

Impoundments like natural wetlands, age through natural succession and are greatly influenced by upland land use. Processes such as erosion and sedimentation eventually infill the impoundment beginning in the upper sections and progressing toward the water control structure. This process of infilling is accelerated on PEI because of

the fragile soil structure. Sources of erosion and sedimentation include agricultural, highway, and forestry activities as well as development on commercial and residential lands. A large number of PEI impoundments are showing signs of accelerated aging and eutrophication. The impact of impoundments on water temperature and dissolved oxygen can be exacerbated with increasingly shallow water and excessive plant growth.

### **Watershed Planning**

Impoundments need to be managed on a watershed basis and in context with provincial and federal legislation, strategies and plans. Impoundment management decisions should be based on the impoundments impact and benefits to the watershed and its overall contribution to the provincial fish and wildlife resources. To date, most planning decisions for impoundment management has been on a site by site basis without considering its overall impact in the watershed. This needs to change to include a more holistic review process. Current information and relevant documents should be consulted during any impoundment management planning process.

***Guidelines Respecting the Management of Impoundments on Prince Edward Island***

**Section 2.0 GUIDELINES AND MANAGEMENT CONSIDERATIONS FOR IMPOUNDMENTS  
ON PRINCE EDWARD ISLAND**



Affleck's Pond, PEI



Hardy Mill Pond, PEI

Applications for new impoundments will be reviewed based on the wetland's impact on the watershed or sub-watershed as determined by the scope of the project. The scoping exercise will be considered on both the watershed and sub-watershed levels. The following criteria will be used to assess applications for new impoundments:

**Location**

New impoundments will not be permitted at the head of tide, in tidal waters or on associated salt marshes.

New impounded wetlands will not likely be permitted on second or greater order streams. New impoundments may be considered in areas on first order streams with ephemeral or low flow and where fisheries resources are unlikely to be negatively affected.

New impoundments may be considered for locations where the wetland may provide a significant ecological benefit to the sub-watershed or watershed (i.e. treatment wetlands, flood control).

**Water Control Structures**

All new impoundments must incorporate adequate fish passage for fish species that presently move through the proposed site, or that could be reasonably expected to do so.

Control structures must be designed with structural integrity, drawdown capabilities to the original stream bed elevation and capable of handling anticipated peak flows as determined by regulatory agencies.

**Size of New Impoundment**

For impoundments greater than 0.5 hectares, including open water and associated moist soil areas, the applicant must file an Environmental Impact Statement with the PEI Department of Environment, Energy and

Forestry specifically addressing the following points:

- Description and size of the direct zone of influence including existing vegetation, water source and elevations of the adjacent lands that will be flooded by the proposed impoundment.
- Description of watercourse upstream and downstream of the proposed impoundment.
- Description of the land use activities adjacent to and upstream of the proposed project.
- Copies of landowner agreements providing the wetland manager or owner permission to flood lands.
- A risk assessment must be prepared to evaluate the changes the impoundment will have on existing or new wildlife species including the fishery resource as a result of the proposed project.

On projects deemed by the regulatory bodies to be of significant size or complexity, the applicant may need to:

- Provide a statement of proposed maintenance and management activities.
- Post a performance bond of 25% of the project budget before construction to be held in trust by the PEI Department of Environment, Energy and Forestry. This is necessary if the project runs into financial difficulties. The regulatory authorities will use the bond to either complete the project or restore the site to the original condition.

The applicant must provide documentation that a public consultation was conducted (i.e. public meetings, open houses).



To ensure impoundments perform satisfactorily and do not threaten downstream resources, a proactive approach led by government and owners or managers of impoundments is needed. Many resource based agencies such as Agriculture and Agri-Food Canada, Fisheries and Oceans Canada, PEI Department of Environment, Energy and Forestry, and other provincial resource agencies are developing and using best management practices, operational statements and integrated watershed planning to achieve better results in resource management. This document will provide managers and landowners of impoundments with information and tools to better maintain their wetlands and will provide regulators with a benchmark to judge due diligence on the part of the landowner or manager.

### **Risk Assessment**

Landowners and managers need to understand that impoundments require active management, monitoring and inspections and related water control structures in order to comply with a number of provincial and federal Acts such as the *Fisheries Act* and the *PEI Environmental Protection Act*. Many impoundments were built decades ago when construction of these wetlands was not extensively regulated. The result was the loss of many of these wetlands due to washouts because the structure was poorly designed or poorly constructed and/or ill-maintained. Even the impoundments that have remained intact over several decades require assessments to determine their lifespan, capability to withstand future intensive storm events, impact on water quality and fish habitat, and capacity to provide fish passage.

### **Assess Hydrological Capacity**

A large number of existing impoundments may not have the capacity to facilitate anticipated high flows. Climate change is resulting in more frequent and intense weather events. Structures need to be assessed by an accredited professional to determine if impoundments and water control structures have the capacity and integrity to handle anticipated storm water flows.



**Egolf's Pond, PEI**

Inspections provided by an accredited professional will help to identify risks. In the past, annual washouts were often repaired without permit or consultation with regulatory agencies. An accredited professional is able to compute the minimum discharge area (expressed in square meters) to safely discharge the anticipated volume of water based on information including overall watershed size and the frequency and intensity of storm events.

### **Assess Capacity for Fish Passage**

A large number of impoundments may not have adequate capacity to pass local fish species migrating up and downstream. Structures need to be

assessed by an accredited professional to determine if the structures have the capacity to facilitate fish passage for species expected to be present in the area. Structures that do not provide passage are likely to be re-designed or modified. Fish-ways are designed to allow certain volumes of water through or around an obstruction that can dissipate the energy within the structure and allow fish to ascend or descend with out undue stress. Some obstructions may affect certain species of fish or individuals within a population such as the weakest swimmers or fish of a certain size. These factors must be taken into consideration when re-designing or modifying a fish-way so that fish are able to pass through the structure.

#### **Assess Impacts on Water Quality and Fish Habitat**

Some impoundments can adversely affect water temperature and dissolved oxygen levels, both within the impoundment and downstream. Impoundments should be periodically assessed to ensure that water quality parameters remain within acceptable levels for all species of fish which utilize the area. These assessments should be carried out or supervised by a qualified professional.

#### **Performing Preventive Maintenance**

Annual inspections and record of inspections must be completed by landowners or managers to ensure the impoundment is intact and structural features are functioning. For an annual inspection report template, refer to Appendix I.

Minor damage to impoundments (i.e. caused by partial washouts, muskrat holes or slumping) need to be repaired by the landowner or manager.

Water control structures and fish-ways must be maintained and kept free of debris during high flow periods to prevent washouts and reduce the risk of creating a barrier to fish passage during times of significant fish migration (April through to July and from mid September to mid November).

For structures that are likely to be impacted with beaver debris, landowners or managers may need to consider preventive maintenance such as the installation of beaver leveler pipes or over flow structures.

#### **Improving or Sustaining Wetland Productivity**

Impoundments, like natural wetlands, move through a typical succession pattern from the time they are originally flooded. Wildlife managers typically try to maintain the impoundment at a state that is highly productive for wildlife which generally consists of a variety of plants distributed throughout the impoundment. This can be managed through the manipulation of water levels using water control structures.

On impoundments with the capability of variable water levels:

- i. In consultation with regulatory agencies, the normal operating level will be established with the landowner or manager.
- ii. Water level adjustments and drawdowns should only occur when there is a minimum negative impact to fish and wildlife and other resource users.

#### **Management Activities Involving a Water Drawdown**

There is no best time for a drawdown or de-watering of an impoundment, but depending on the intended outcome of

the drawdown there are times that a wetland manager should avoid. A drawdown is a significant event for an individual wetland, since the habitat is being altered from a wet environment to a dry land situation.

No matter what time of the year the drawdown occurs, some species of fish and wildlife or resource users may be negatively affected. The objective of the following section is to illustrate some of the considerations prior to selecting a drawdown date. Any water level alteration will require a permit issued by regulatory agencies. Landowners or managers should review the PEI Watercourse and Wetland Alteration Guidelines (2006) for detailed considerations on drawdowns and considerations for downstream resources and resource users.

### **Timing of Drawdowns**

#### **Winter drawdown (January– March)**

Winter drawdowns are the most difficult to perform and should be avoided. Many species of wildlife (i.e., muskrat and beaver) have established shelter and species such as brook trout and a variety of amphibians have migrated into the wetland to over-winter. Drawing the water down at this time of the year may result in significant mortality of wildlife and fish species and may create hazards to human safety (i.e., shell ice).

#### **Spring drawdown (April – June)**

Early spring drawdowns are more advantageous than winter drawdowns since most wildlife can adjust by moving to adjacent waters or other wetlands. The majority of waterfowl nesting takes place from May-June so April drawdowns are more desirable than later spring drawdowns. However, if angling is a primary activity within the area, then a drawdown at the beginning

of fishing season in mid April should be avoided. One should also avoid an early spring drawdown if there has been significant salmonid spawning downstream from the structure. Drawing an impoundment down before young fish have emerged from redds can result in an influx of sediment which can smother salmonid fry.

#### **Summer drawdown (July – Sept)**

Drawdowns during this time period should be scheduled in September to avoid loss of habitat for a variety of birds that either nest in wetlands or whose young depend on wetlands prior to fledging. Drawdowns of more than three weeks during the summer months will promote the growth of vegetation and may allow invasive species such as reed canary grass and purple loosestrife to invade exposed mud flats.

#### **Fall drawdown (October–December)**

Early fall drawdowns are less disruptive to wildlife than in the late fall. Amphibians, fish and mammals may be able to relocate to other wetlands in October. Some species may suffer mortalities during cold weather in the late fall. If the wetland is used by hunters or trappers their activities will be affected by a drawdown.

#### **Drawdown Frequency**

The frequency of drawdowns depends on surrounding land use and the objectives of the impounded area, as determined by the impoundment manager or landowner. If the impoundment is subject to high levels of sediment filling the upper end and altering the incoming stream, then drawdowns may be required more frequently, up to once each five years. However, drawdowns should not be used as a substitute for poor land use practices. If high levels of sediments are

flowing into the impoundments, then steps must be taken to mitigate the issue.

Many impoundments in the province have not been drawn down since their original construction several decades ago. However, little research has occurred on PEI impoundments to determine the overall costs and benefits of performing drawdowns.

### **Length of Drawdown**

The length of a drawdown depends on the overall result that the landowner or manager is trying to achieve. If the drawdown takes place in order to carry out maintenance work, then the water only needs be drawn off for a minimal amount of time to reduce impact to wildlife. If the objective is to manipulate or remove vegetation or accumulated sediments, then landowners should consult with experienced fish and wildlife managers and regulators before finalizing the watercourse / wetland alteration application.

### **Internal Management**

Landowners can carry out a number of activities to enhance their wetland for wildlife use. Techniques such as island construction, placement of loafing logs, control of invasive species, and installation of nesting structures are activities that landowners or managers may wish to consider. Additional information may be obtained by consulting with trained professionals or the following websites: [www.wetkit.net/](http://www.wetkit.net/) and [www.hww.ca/](http://www.hww.ca/).

There are also techniques which can minimize the impact of an impoundment on downstream water quality. For example, the use of a bottom draw mechanism can be used to draw water from cooler bottom depths, thus

preventing excessively warm surface water from moving downstream. Experienced fish and wildlife managers can provide expertise in planning or implementing such a strategy.

### **Impoundment Dredging or Excavation**

Impoundments may become filled with sediments to a level where they do not look or function as originally intended. To address this issue, some landowners and managers have opted for very expensive techniques of excavating sediment from impoundment bottoms. These techniques come with some significant risk to the environment; therefore, excavation plans must be carefully developed in consultation with regulatory authorities. Additionally, the Province has a policy on impoundment excavation that landowners need to review before proceeding with plans.

In some situations these projects can be quite successful while others have yielded dubious results. Excavation is not a substitute for good land management. If the level of sediments entering the impoundment has not been reduced through sound land management, there is little value in excavating impoundments because they will rapidly fill back in.

All impoundments and associated infrastructure (i.e., earthen berm and bypass, concrete weir, wooden box or culvert) will age over time and may need to be re-built in order to ensure structural integrity or decommissioned. For the purposes of this guide, reconstruction of an impoundment or its water control structure is defined as an activity where the concrete, steel works, culvert, earthen berm or bypass channel needs to be replaced. Reconstruction does not include normal operational works such as baffle replacement, repairs to earthen berms due to damage such as muskrat activity, beaver leveler installation or debris removal from water control structures.

Where an impoundment washes out due to an under designed water control structure, regulatory authorities may require the landowner or manager to re-design the structure before issuing a permit to repair the impoundment. On washouts caused by poor maintenance practices, regulatory agencies may require the landowner or manager to provide a long term plan to ensure inspections and maintenance activities are completed at regular intervals.

The reconstruction of impoundments need to be assessed in the context of multiple federal and provincial Acts and programs that attempt to reduce the risk of negative impacts. The primary Acts in which impoundments on PEI are managed under are the *Fisheries Act* which is federal and the *Environmental Protection Act*, provincial legislation.

The *Fisheries Act* provides the legal basis for protecting and conserving fish and fish habitat. There are a number of habitat protection provisions within the Act. Section 20 provides the Minister with the authority to approve designs of

fishways. Section 35 is the key habitat protection provision which prohibits any work or undertaking that would cause the harmful alteration, disruption or destruction (HADD) of fish habitat, unless authorized by the Minister of Fisheries and Oceans Canada.

The *Prince Edward Island Environmental Protection Act* was enacted to protect and enhance the environment. It is through this Act, in Section 10, that landowners and impoundment managers must obtain permits allowing for the operation, reconstruction or decommissioning of impoundments.

In addition to these Acts, impoundments contribute to other programs and government priorities such as the *Migratory Bird Convention Act*, *Species At Risk Act*, *Wildlife Conservation Act*, Biodiversity Strategy, Drinking Water Strategy, Provincial Wetland Conservation Policy, and the Federal Policy on Wetland Conservation. PEI Tourism also lists impoundments as destinations for recreational activities. At the international level, Canada is a signatory along with the United States and Mexico on the North American Waterfowl Management Plan. This plan is delivered locally through the Eastern Habitat Joint Venture which PEI is a signatory and has funded the construction and management of impoundments on PEI. It is within this mix of legislation and programs that decisions must be made by regulatory agencies on the reconstruction of wetlands.

On projects where regulatory agencies have an expressed concern regarding fish passage, fish habitat either within the wetland or downstream, potential risk of washout, accumulated sediments

or other issues, the regulatory agencies working with the landowner or manager will assess applications for reconstruction considering the checklist located in Appendix II of this document.

When an impoundment has experienced a washout or is slated for reconstruction, it is an ideal time to consult with the public regarding management of the site. The applicant may be asked to consult with the public.

Proposals where the applicant can demonstrate that the project is of minimal environmental risk, submissions will be considered by regulatory agencies based on the following design and construction details.

#### **Design Criteria**

The reconstruction of a water control structure requires careful planning and the assistance of an accredited professional to develop construction plans to current standards. These plans will detail the following:

- i. the area and depths of the flooded zone
- ii. the residence time of the impoundment
- iii. ice and water forces on the structure
- iv. maintenance flow within the watercourse
- v. fish passage design
- vi. provision of fish passage during reconstruction
- vii. structural upgrades (i.e., drawdown capacity)

- viii. legal flooding rights / landowner agreements

#### **Normal Operating Level**

A description of the normal operation of the impoundment, noting the maximum drawdown and normal operating level (NOL) of the water control structure will be required. This would include a statement on the intended range of operating conditions and the likely consequences of operating outside of that range.

#### **Sediment Accumulation**

The rate of sediment accumulation and volume of material in the impoundment must be considered when planning management options such as drawdown or reconstruction works. A sediment control plan will be required by regulatory agencies prior to the commencement of work.

In situations where a manager of an impounded wetland determines that they wish to decommission an existing pond, they will apply to the PEI Department of Environment, Energy and Forestry for a watercourse alteration permit. The scope of the environmental assessment will reflect the site specific requirements and be determined in consultation with regulatory authorities. In general, the landowner or manager will provide the following information:

- i. a description of the direct zone of influence, i.e. dimensions of the footprint of the dam - water control structure, flooded areas, and

areas downstream

- ii. an assessment of impacts on the fisheries and wildlife resources
- iii. provisions to manage accumulated sediments that are likely to be transported downstream following decommissioning
- iv. a description of upstream land use,
- v. anticipated changes in water quality
- vi. the applicant may be asked to consult with the public

**Accredited professional** (within this document) is a person who holds recognized professional training in engineering, with valid membership in an engineering organization. This person will be able to provide signed, stamped drawings for reconstruction, rebuilds and decommissioning projects.

**Impoundment** (for the use of this document) refers to the volume of water that is retained behind a physical barrier.

**Lentic to Lotic Ratio** refers to the ratio of impounded surface area to the area of the flowing water. It has been shown that this ratio can be a yardstick in determining the suitability of an impoundment for fish, as water residence time, dissolved oxygen, and water temperature are affected by this ratio.

### **Wetland Classes**

1. **Open Water:** Refers to wetland with water depths of one to three metres (3 to 10 feet), associated with any of the other wetland classes, but usually with deep or shallow marshes. Submergent and surface vegetation are dominant.
2. **Deep Marsh:** This class applies to wetlands with an average water depth between 6 in. and 3 ft. (10 cm. and 1 m.) during the growing season. Emergent marsh vegetation is usually dominant, with surface and submergent plants present in open areas.
3. **Shallow Marsh:** This class applies to wetlands dominated usually by robust or marsh emergents, with an average water depth less than 6 in. (15 cm.) during the growing season. Surface water may be absent during the late summer and abnormally dry periods. Floating-leaved plants and submergents are often present in open areas.
4. **Seasonally Flooded Flats:** This class applies to extensive river floodplains where flooding to a depth of 12 or more inches (30 cm.) occurs annually during late fall, winter and spring. During the summer, the soil is saturated, with a few inches of surface water occurring locally. Dominant vegetation usually is emergent, but shrubs and scattered trees may be present.
5. **Meadow:** This class applies to wetland dominated by meadow emergents with up to 6 in. (15cm.) of surface water during the late fall, winter and early spring. During the growing season the soil is saturated and the surface exposed except in shallow depressions and drainage ditches. Meadows occur most commonly on agricultural land where periodic grazing or mowing keeps shrubs from becoming established.
6. **Shrub Swamp:** This class applies to wetlands dominated by shrubs where the soil surface is seasonally or permanently flooded with as much as 12 in. (30 cm.) of water. Sedges are often the ground cover under shrubs with meadow emergents occupying wetter areas.
7. **Wooded Swamp:** This class refers to wetlands dominated by trees growing in a muck soil. The soil surface may be seasonally flooded with up to 1 ft. (30 cm.) of



water. Several levels of vegetation are usually present including trees, shrubs, and herbaceous plants. In mature wooded swamps, differences in elevation may result in pronounced micro-habitats (micro topography), where trees and shrubs occupy the drier areas whereas marsh emergents and ferns may occupy the ephemeral pools of standing water.

8. **Bog:** This class applies to wetlands where the accumulation of Sphagnum moss, as peat, determines the nature of the plant community. Young bogs commonly have floating peat mats that creep outward from shore over the surface of open water. *Picea mariana* and *Larix laricina* are typical tree species. *Chamaedaphne calyculata*, *Kalmia angustifolia*, *Sarracenia purpurea*, and *Eriophorum* spp. are characteristic plants found in bogs throughout the Northeast.

**Guidelines Respecting the Management of Impoundments on Prince Edward Island**

Section 4.0

**APPENDICES**



**Glenwood Pond, PEI**



**Millvale Pond, PEI**

**Preventative Maintenance Reporting: Record of Annual Inspection**

**Impoundment:** \_\_\_\_\_

**Date Inspected:** \_\_\_\_\_ **Inspected By:** \_\_\_\_\_

**Obstructions**

Many impoundments have the potential to affect fish migrations. The most obvious situations involve an obstruction by which fish cannot pass. An obstruction does not necessarily have to result in a complete blockage of fish passage in order to have a significant effect on a population. Some obstructions may only affect certain species or individuals within a population such as the weakest swimmers or fish of a certain size. Physical obstructions (i.e. debris build-up on structures or screens) are the most common form of fish passage barrier, but other effects such as changes in water velocity can be just as significant. These situations are best mitigated by regular monitoring and maintenance of the site.

Structure	Obstruction at Site (Yes / No)	Action(s) Taken
Weir		
Fishway		
Spillway		
Trash Rack		
Bottom Draw		

\*Please note that not all features listed above will be present at all locations.

**Overall Assessment of Condition**

Indicate the condition of the following features annually in April, August and November:

Component	Condition (Good / Fair / Poor)	Comments
Control structure		
Fishway Baffles		
Chutes		
Bottom Draw		
Safety Signs		
Safety Rails		

**Water Level**

1. Measure the actual depth from the top baffle of the fishway or from the top of fishway wall to the water's surface, just upstream of the baffles.
2. Measure the actual depth over the weir stoplog.

**General Comments and/or Observations**

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Note: This review is an attempt to gather all relevant information so an informed and prudent decision can be made. There is no attempt to develop a numerical scoring system since value is typically arbitrary and weighing scores seldom reflects real life situations.

1. Does the impoundment provide fish passage for all species of fish that would be expected to migrate through this site?

**If yes, move onto Question 2.**

**If no,**

- a. List the species of concern and the overall limitation this obstruction has on the population of this fish within the sub-watershed and its larger watershed or on a provincial basis.
- b. Is there any way to mitigate or to improve on the current fish passage situation?

2. Is seasonal habitat for certain species of fish and wildlife within the associated wetland a concern?

**If no, move onto Question 3.**

**If yes,**

- a. Identify the species of concern and the limiting factors.
- b. What time of the year and how long do the undesirable conditions persist?
- c. State the magnitude of the habitat limitation in terms of the overall effect to the fish or wildlife population on a sub watershed, watershed or provincial basis.
- d. Is there any way to mitigate or improve habitat conditions for the species of concern?

3. Do the impoundment and associated wetland occupy a habitat type that is of concern to regulators?

**If no, move onto Question 4.**

**If yes,**

- a. Describe the habitat type that existed prior to the original impoundment being constructed. Identify what habitat or species are being displaced due to the existence of the impoundment and its associated wetland.
- b. State the magnitude of this concern by determining the area converted to an alternate habitat in context of the sub watershed, watershed or provincial basis.
- c. Is there any way to mitigate for the habitat conversion?

4. Have the impoundment and associated wetland trapped large quantities of sediments?

**If no, move onto question 5.**

**If yes:**

- a. Estimate the volume of sediments based on depth and area the sediments occupy.
  - b. What provisions will be made in the reconstruction plan to minimize the transport of sediments downstream?
5. Sediments suspended in watercourses typically settle out in impoundments. If decommissioning is being considered, are there sediment sources upland or sediment loads upstream from the impoundment that will move within the watercourse?

**If no, refer to “Design Criteria”, “Normal Operating Level” and “Sediment Accumulation” in Section 2.3 for projects of minimal environmental risk.**

**If yes,**

- a. Assess potential for negative impacts on downstream water resource users (i.e., public shellfish beds, commercial fisheries) and propose mitigation to minimize these impacts.

**On projects where the habitat concern cannot be satisfactorily mitigated, regulatory agencies must arrive at a decision based on the scope of the issue as stated above in relation to the value of the impoundment and associated wetland as indicated by the following considerations:**

1. What ecological role does this impoundment and associated wetland play within the context of the sub watershed, watershed or provincially based on:
  - a. Nutrient assimilation
  - b. Sediment removal
  - c. Bacterial die-off
  - d. Pesticide assimilation
  - e. Water storage
  - f. Biodiversity contributions
2. What economic value does this impoundment or associated wetland generate in relation to:
  - a. Tourism
  - b. Agriculture
    - i. Irrigation
    - ii. Livestock watering
  - c. Fisheries and aquaculture
  - d. Health and safety
    - i. Outdoor exercising
    - ii. Water source for fire fighting
  - e. Fur trapping
  - f. Bio-resources

3. Is there significant social value attached to this impoundment or associated wetland based on:
  - a. Historic value
  - b. Community or individual attachment
    - i. Aesthetics
    - ii. Education
  - c. Recreational value
    - i. Angling
    - ii. Hunting
    - iii. Skating
    - iv. Swimming
    - v. Wildlife viewing
    - vi. Hiking/walking