CULVERT MAINTENANCE

Fisheries and Oceans Canada
Pacific Region Operational Statement

Version 3.0

Culvert maintenance is undertaken to extend the life of the structure and to ensure that it functions as designed, thus ensuring public safety and safe fish passage. Culvert maintenance includes the removal of accumulated debris (e.g., logs, boulders, garbage, ice build-up) that prevents the efficient passage of water and fish through the structure. Culvert maintenance may also include the reinforcement of eroding inlets and outlets, but does not include the replacement of damaged or destroyed bevel ends. Culverts requiring regular maintenance and significant structural repair should be considered for future remediation via redesign or reinstallation.

Culvert maintenance activities can affect fish and fish habitat by the removal of woody debris that is important for cover and food production, by causing flooding and excessive stream scouring if blockages are removed too quickly, excessive erosion and sedimentation from the use of equipment along the stream bank, and disruption of critical fish life stages. Replacement of eroded rock armouring can alter flows and fish movement patterns if done excessively.

Fisheries and Oceans Canada (DFO) is responsible for protecting fish and fish habitat across Canada. Under the *Fisheries Act* no one may carry out a work or undertaking that will cause the harmful alteration, disruption or destruction (HADD) of fish habitat unless it has been authorized by DFO. By following the conditions and measures set out below you will be in compliance with subsection 35(1) of the *Fisheries Act*.

The purpose of this Operational Statement is to describe the conditions under which it is applicable to your project and the measures to incorporate into your project in order to avoid negative impacts to fish habitat. You may proceed with your culvert maintenance project without a DFO review when you meet the following conditions:

- the work does not include realigning the watercourse, installing a culvert liner or support struts, replacing damaged or destroyed bevels ends, or extending/replacing the existing culvert,
- explosives are not used to remove debris,
- the work does not include any dredging, infilling (e.g., filling scour pools, rock reinforcement/armouring placement) or excavation of the channel upstream or downstream of the culvert, and
- you incorporate the *Measures to Protect Fish and Fish Habitat when Maintaining Culverts* listed below in this Operational Statement.

If you cannot meet all of the conditions listed above and cannot incorporate all of the measures listed below then your project may result in the violation of subsection 35(1) of the *Fisheries Act* and you could be subject to enforcement action. In this case, you should contact the DFO office in your area if you wish to obtain DFO's opinion on the possible options you should consider to avoid contravention of the *Fisheries Act*.

You are required to comply with all municipal, provincial, territorial and/or federal legislation that applies to the work being carried out in relation to this Operational Statement. In British Columbia, please contact the Water Stewardship Division, Ministry of Environment (**http://www.env.gov.bc.ca/wsd/water_rights/licence_application/section9/index.html**) for information on the Provincial *Water Regulation* notification requirements when planning to conduct culvert maintenance in or around BC waters.

The activities undertaken in this Operational Statement must also comply with the *Species at Risk Act.* For general information on aquatic SARA species visit the following web site: **http://www.dfo-mpo.gc.ca/species-especes/regions/Pac/pacific-index-eng.htm** and/or contact DFO by email at: **SARA@pac.dfo-mpo.gc.ca**

If you have questions regarding this Operational Statement, please refer to the list of **Frequently Asked Questions** (**http://www.pac.dfo-mpo.gc.ca/habitat/os-eo/faq-eng.htm**) or contact DFO Regional Headquarters at 1-866-845-6776.

Please notify DFO 10 working days before starting your work by filling out and sending the Pacific Region Operational Statement **notification form** directly to DFO Regional Headquarters. This information is requested in order to evaluate the effectiveness of the work carried out in relation to this Operational Statement. It is recommended that you keep a copy of the Operational Statement at the work site to demonstrate to Habitat and Fishery Officer staff that the conditions and measures, as outlined in the OS, are being followed.

Area of Application
This Operational Statement applies to the province of British Columbia and Yukon Territory freshwater systems only.

Measures to Protect Fish and Fish Habitat when Maintaining Culverts

1. Use existing trails, roads, or cut lines wherever possible to avoid disturbance to the riparian vegetation.

2. While this Operational Statement does not cover the clearing of riparian vegetation, the removal of select plants may be necessary to access the work site. This removal should be kept to a minimum and within the immediate work area. When practicable, prune or top the vegetation instead of uprooting.

3. Unless accumulated material (i.e., branches, stumps, other woody materials, garbage, etc) is preventing the passage of water and/or fish through the structure, time material and debris removal to prevent disruption to sensitive fish life stages by adhering to appropriate fisheries **timing windows** (**http://www.pac.dfo-mpo.gc.ca/habitat/timing-periodes/Index-eng.htm**).

4. Install effective sediment and erosion control measures before starting work to prevent sediment from entering the watercourse. Inspect them regularly during the course of construction and make all necessary repairs if any damage occurs.

5. Limit the removal of accumulated material (i.e., branches, stumps, other woody materials, garbage, etc) to the area within the culvert, immediately upstream of the culvert and to that which is necessary to maintain culvert function and fish passage.

6. Remove accumulated material and debris slowly to allow clean water to pass, to prevent downstream flooding and to reduce the amount of sediment-laden water going downstream. Gradual dewatering will also reduce the potential for stranding fish in upstream areas.

7. Operate machinery on land (above the **high water mark** (HWM) (**http://www.pac.dfo-mpo.gc.ca/habitat/Glossary-glossaire-eng.htm#HWM**) and in a manner that minimizes disturbance to the banks of the watercourse.

   7.1. Machinery is to arrive on site in a clean condition and is to be maintained free of fluid leaks, invasive species and noxious weeds.
   7.2. 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.
   7.3. Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.
   7.4. Restore banks to original condition if any disturbance occurs.

8. If replacement rock reinforcement/armouring is required to stabilize eroding inlets and outlets, the following measures should be incorporated:

   8.1. Adhere to fisheries **timing windows**.
   8.2. Place appropriately-sized, clean rocks into the eroding areas associated directly with the inlet or outlet.
   8.3. Do not obtain rocks from below the **HWM** of any water body.
   8.4. Avoid the use of rock that is acid-generating. Also avoid the use of rock that fractures and breaks down quickly when exposed to the elements.
   8.5. Install rock at a similar slope to maintain a uniform stream bank and natural stream alignment.
   8.6. Ensure rock does not interfere with fish passage or constrict the channel width.

9. Stabilize any waste materials removed from the work site to prevent them from entering the watercourse. This could include covering spoil piles with biodegradable mats or tarps or planting them with grass or shrubs.

10. Vegetate any disturbed areas by planting and seeding with native trees, shrubs or grasses and cover such areas with mulch to prevent erosion and to help seeds germinate. All seeding and/or planting trees should follow the DFO guidance on **http://www.pac.dfo-mpo.gc.ca/habitat/reveg/index-eng.htm**). If there is insufficient time remaining in the growing season, 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.

    10.1. Maintain effective sediment and erosion control measures until re-vegetation of the disturbed areas is achieved.

DFO REGIONAL HEADQUARTERS

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Regional Habitat Manager
200-401 Burrard Street
Vancouver, BC V6C 3S4.
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Email: dfo_epmp@pac.dfo-mpo.gc.ca

Aussi disponible en français

http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/epmp-pmpe/index_f.asp

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NOTIFICATION FORM

Fisheries and Oceans Canada
Pacific Region Operational Statement

Version 3.1

PROPONENT INFORMATION

NAME:
STREET ADDRESS:
CITY/TOWN:
PROVINCE/TERRITORY:
POSTAL CODE:
TEL. NO. (RESIDENCE):
TEL. NO. (WORK):
FAX NO:
EMAIL ADDRESS:

CONTRACTOR INFORMATION (provide this information if a Contractor is working on behalf of the Proponent)

NAME:
STREET ADDRESS:
CITY/TOWN:
PROVINCE/TERRITORY:
POSTAL CODE:
TEL. NO. (RESIDENCE):
TEL. NO. (WORK):
FAX NO:
EMAIL ADDRESS:

PROJECT INFORMATION

Select Operational Statements that are being used (check all applicable boxes):

- ❒ Aquatic Vegetation Removal in Lakes
- ❒ Bridge Maintenance
- ❒ Culvert Maintenance
- ❒ Directional Drilling
- ❒ Dock and Boathouse Construction in Fresh Water Systems
- ❒ Dry Open-Cut Crossings
- ❒ Ice and Snow Fill Bridges
- ❒ Isolated Pond Construction
- ❒ Maintenance of Riparian Vegetation in Existing Rights-of-Way
- ❒ Overhead Line Construction
- ❒ Public Beach Maintenance
- ❒ Punch and Bore Crossings
- ❒ Routine Maintenance Dredging for Navigation
- ❒ Small Moorings
- ❒ Small Clear-Span Bridges
- ❒ Temporary Ford Crossings
- ❒ Underwater Cables in Fresh Water Systems

Select the type of water body or watercourse at or near your project:

- ❒ River, Stream, Creek
- ❒ Lake (8 hectares or greater)
- ❒ Marine (Ocean or Sea)
- ❒ Estuary
- ❒ Pond or wetland (pond is less than 8 hectares)

PROJECT LOCATION (S) (fill out this section if the project location is different from Proponent Information; append multiple project locations on an additional sheet if necessary)

Name of water body or watercourse Nearest Town to site	Coordinates of the Project (UTM co-ordinate or Degrees, Minutes, Seconds), if available Easting: Northing: Latitude: Longitude:
Legal Description (Plan, Block, Lot, Concession, Township, Section, Range)	Directions to Access the Project Site (i.e., Route or highway number, etc.)
Proposed Start Date (YYYY/MM/DD):	Proposed Completion Date (YYYY/MM/DD):

Please notify DFO, preferably 10 working days before starting your work, by filling out and sending in, by mail, email or by fax, this notification form to the DFO Regional Headquarters. This information is requested in order to evaluate the effectiveness of the work carried out in relation to the Operational Statement.

I, _____ (print name) certify that the information given on this form is, to the best of my knowledge, correct and complete.

Signature _____ Date _____

Note: If you cannot meet all of the conditions and cannot incorporate all of the measures in the Operational Statement then your project may result in a violation of Subsection 35(1) of the *Fisheries Act* and you could be subject to enforcement action. In this case, you should contact the DFO office in your area if you wish to obtain DFO's opinion on the possible options you should consider to avoid contravention of the *Fisheries Act.*

Information about the above-noted proposed work or undertaking is collected by DFO under the authority of the *Fisheries Act* for the purpose of administering the fish habitat protection provisions of the *Fisheries Act*. Personal information will be protected under the provisions of the *Privacy Act* and will be stored in the Personal Information Bank DFO-SCI-605. Under the *Privacy Act*, Individuals have a right to, and on request shall be given access to, any personal information about them contained in a personal information bank. Instructions for obtaining personal information are contained in the Government of Canada's Info Source publications available at **www.infosource.gc.ca** or in Government of Canada offices. Information other than "personal" information may be accessible or protected as required by the provisions of the *Access to Information Act*.

This Notification Form (Version 3.1) may be updated as required by Fisheries and Oceans Canada. It is your responsibility to use the most recent version. Please refer to the Operational Statements web site at **http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/epmp-pmpe/index_e.asp** to ensure that a more recent version has not been released.

Canada

DFO REGIONAL HEADQUARTERS

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