PUNCH & BORE CROSSING

VERSION 1.0 Valid until March 31, 2007

For the purpose of this Operational Statement, the term Punch & Bore refers to a trenchless crossing method which involves the excavation of a vertical bell hole or shallow depression on either side of the watercourse. Horizontal punching or boring between the two points, at an appropriate depth below the watercourse, completes the creation of a passage-way for the crossing. Punch & Bore Crossings allow cables and pipelines to be installed under watercourses without imparting any disturbance to the bed and banks. Punch & Bore Crossings differ from Directional Drilled Crossings, in that no pressurized mud systems are required, thereby avoiding the risk of sediment release due to frac out.

This Operational Statement does not apply to any wet, open-cut water crossing under any circumstances. Open-cut crossings under seasonally dry or frozen to the bottom conditions do not require DFO review. For these crossings, ensure that the site is returned to preconstruction conditions and follow the appropriate measures below.

Fisheries and Oceans Canada (DFO) is responsible for protecting fish and fish habitat across Canada. Under Section 35 of 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 be incorporated into your Punch & Bore Crossing project in order to avoid negative impacts to fish habitat. You may proceed with your Punch & Bore Crossing project without a DFO review when you meet the following conditions:

- the crossing technique will not damage the stream bed and thereby negatively impact fish or fish habitat, and
- you incorporate the Measures to Protect Fish and Fish Habitat when Conducting a Punch & Bore Crossing, listed below.

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 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 more information on the possible options you should consider to avoid contravention of the *Fisheries Act*.

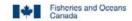
This Operational Statement does not release you from the responsibility of obtaining any other permits or approvals that may be required under municipal, provincial, territorial and federal legislation (e.g., the *Navigable Waters Protection Act*) that apply to the work being carried out in relation to this Operational Statement. If you have questions regarding this Operational Statement, please contact DFO by telephone at (418) 775-0726 or by email at <u>Habitat-qc@dfompo.gc.ca</u>.

We ask that you notify DFO, preferably 10 days before starting your work, by filling out and sending in the attached notification form to: Fisheries and Oceans Canada, Fish habitat management branch, 850 route de la Mer, C.P. 1000, Mont-Joli, Québec, G5H 3Z4; Fax: (418) 775-0658. This information is requested in order to evaluate the effectiveness of the work carried out in relation to this Operational Statement.

Pêches et Océans

Measures to Protect Fish and Fish Habitat when Conducting a Punch & Bore Crossing

- A Punch & Bore Crossing can be conducted at any time of the year providing there is not a high risk of failure.
- 2. Design the punch and bore path for an appropriate depth below the watercourse to prevent the pipeline or cable from becoming exposed due to natural scouring of the stream bed.
- 3. While this Operational Statement does not cover the clearing of riparian vegetation, the removal of select plants may be necessary to access the construction site and to excavate the bell holes. This removal is to be kept to a minimum and within the utility right-of-way.
- 4. Machinery fording the watercourse to bring equipment required for construction to the opposite side of the watercourse is limited to a one-time event (over and back) and is to occur only if an existing crossing at another location cannot be used. If the stream bed and banks are highly erodible (e.g., dominated by organic materials and silts) and erosion and degradation is likely to occur as a result of equipment fording, then a temporary crossing structure or other practice should be used to protect these areas. Any fording should adhere to provincial fisheries timing windows in order to prevent disruption to spawning fish, their incubating eggs or larval life stages by adhering to provincial fisheries timing windows (between June 27 and September 1, unless it is clearly established that the work schedule will not interfere with the fish species life cycles).
- Operate machinery on land and in a manner that minimizes disturbance to the banks of the watercourse.
 - **5.1.** Machinery is to arrive on-site in a clean condition and is to be maintained free of fluid leaks.
 - **5.2.** 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
 - 5.3. Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.
- 6. Excavate bell holes beyond the ordinary high water mark, far enough away from any watercourse to allow containment of any sediment or deleterious substances above the ordinary high water mark.
 - 6.1. When dewatering bell holes, treat water or divert it into a vegetated area or settling basin to remove suspended solids and prevent sediment and other deleterious substances from entering the watercourse.
 - **6.2.** Stabilize any waste materials removed from the work site (including bell holes) above the ordinary high water mark to prevent them from entering any watercourse. Spoil piles could be contained with silt fence, flattened, covered with biodegradable mats or tarps, and/or planted with preferably native grass or shrubs.









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- 6.3. After suitably backfilling and packing the bell holes, vegetate any disturbed areas by planting and seeding preferably native trees, shrubs or grasses and cover such areas with mulch to prevent soil erosion and to help seeds germinate. If there is insufficient time in the growing season remaining for the seeds to germinate, stabilize the site (e.g., cover exposed areas with erosion control blankets to keep the soil in place and prevent erosion) and then vegetate the following spring.
- Monitor the watercourse to observe signs of malfunction during all phases of the work.
- 8. For the duration of the work, keep on-site and readily accessible, all material and equipment needed to contain and clean-up releases of sediment-laden water and other deleterious substances.
- 9. Develop a response plan that is to be implemented immediately in the event of a sediment release or spill of a deleterious substance. This plan is to include measures to: a) stop work, contain sediment-laden water and other deleterious substances and prevent their further migration into the watercourse; b) notify all applicable authorities in the area, including the closest DFO office; c) promptly clean-up and appropriately dispose of the sediment-laden water and deleterious substances; and d) ensure clean-up measures are suitably applied so as not to result in further alteration of the bed and/or banks of the watercourse.
- Maintain effective sediment and erosion control measures until complete re-vegetation of disturbed areas is achieved.
- 11. For open-cut crossings under seasonally dry or frozen to the bottom conditions, restore the bed and banks of the watercourse to pre-construction condition. Restore the original channel bottom gradient and substrate and cover the disturbed stream bed with a layer of appropriately sized clean granular material. Ensure banks are stabilized, adequately protected from erosion and re-vegetated, preferably with native species.

Aussi disponible en français

www.dfo-mpo.gc.ca/oceans-habitat/index_f.asp

Pêches et Océans

Fisheries and Oceans

This Operational Statement applies to the province of Québec



NOTIFICATION FORM

VERSION 2.0 Valid until March 31, 2007

PROPONENT INFORMATION		
NAME:		
STREET ADDRESS:		
CITY/TOWN:	PROVINCE/TERRITOR	Y: 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/TERRITOR	C: 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	☐ Culvert Maintenance	 ■ Maintenance of Riparian Vegetation in Existing Rights-of-Way
□ Beach Creation	□ Directional Drilling	☐ Moorings
□ Beach Maintenance	□ Dock Construction	□ Overhead Lines
□ Beaver Dam Removal	☐ Ice Bridges	□ Punch and Bore Crossings
□ Bridge Maintenance	☐ Isolated Ponds	□ Routine Maintenance Dredging
☐ Clear-Span Bridges	□ Log Salvage	☐ Underwater Cables
Select the type of water body or watercourse at or near your project:		
☐ River, Stream, Creek	☐ Marine (Ocea	n or Sea)
☐ Lake (8 hectares or greater)	☐ 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		Coordinates of the Project (UTM co-ordinate or Degrees, Minutes,
		Seconds), if available
		Easting: Northing:
		Latitude: Longitude:
Legal Description		Directions to Access the Project Site
(Plan, Block, Lot, Concession, Township, Section, Range)		(i.e., Route or highway number, etc.)
	, , ,	
Proposed Start Date		Proposed Completion Date
(YYYY/MM/DD):		(YYYY/MM/DD):
	working days before starting your work	
We ask that you notify DFO, preferably 10 working days before starting your work, by filling out and sending in, by mail or by fax, this notification form to: Fisheries and Oceans Canada, 850 Route de la Mer, P.O. Box 1000, Mont-Joli, Québec G5H 3Z4; Fax: (418) 775-0658. 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.		
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*.

Aussi disponible en français.









