



UNDERWATER CABLES

Fisheries and Oceans Canada Northwest Territories Operational Statement

Version 3.0

The placement of cables on the beds of freshwater lakes and rivers is a common practice used to deliver utility services (i.e., electricity and telephone) across water bodies when overhead lines are not feasible. The placement of underwater cables is more favourable than using unconfined open trench methods, which bury the cables within the substrate of the lake or river. Placing cables on the beds of freshwater lakes or rivers typically generates less sediment and avoids the need to use machinery in the water. In some instances, however, excavation may be required as cables may need to be buried near to the shoreline for operational safety reasons.

Potential impacts to fish and fish habitat include disruption of sensitive fish spawning areas (e.g., gravel, cobble, and rock rubble), erosion and sedimentation caused by disturbance to the shoreline and bed of water bodies, removal of riparian (bank) vegetation and underwater rocks and logs that provide cover, shade and food, and disruption of sensitive fish life stages.

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 underwater cable project without a DFO review when you meet the following conditions:

- your planned work is not located in a critical area, as identified in a NWT Community Conservation Plan or other applicable land use plan,
- unconfined open trench methods, including ploughing and water-jetting, to bury cable are not used,
- underwater cables are not installed on or within known fish spawning habitat,
- cable trenching is limited to near shore areas and is to be no greater in width than that required to accommodate the cable,
- any near shore excavation to bury the cable extends a maximum total of 10 metres measured horizontally from the ordinary high water mark (HWM) (see definition below), but in no case will involve more than 10% of a stream channel width (in total),
- explosives are not used to trench the cable,

- this Operational Statement is posted at the work site and is readily available for reference by workers, and
- you incorporate the *Measures to Protect Fish and Fish Habitat when Placing Underwater Cables* 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 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*.

You are required to respect all local, municipal, territorial or federal legislation that applies to the work being carried out in relation to this Operational Statement. The activities undertaken in this Operational Statement must also comply with the *Species at Risk Act* (www.sararegistry.gc.ca). If you have questions regarding this Operational Statement, please contact the DFO office in your area (see Northwest Territories DFO office list).

We ask that you notify DFO, preferably 10 working days before starting your work by filling out and sending the Northwest Territories Operational Statement notification form (www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/prov-terr/index_e.htm) to the DFO office in your area. This information is requested in order to evaluate the effectiveness of the work carried out in relation to this Operational Statement.

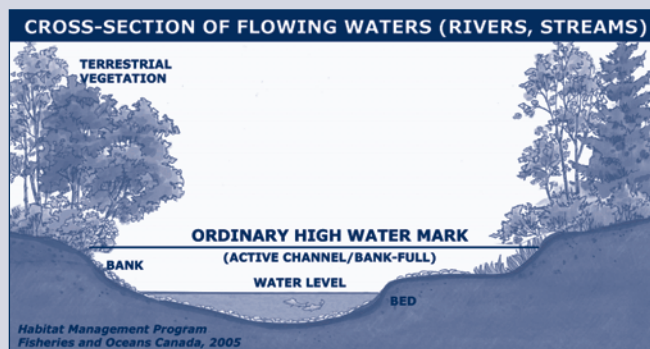
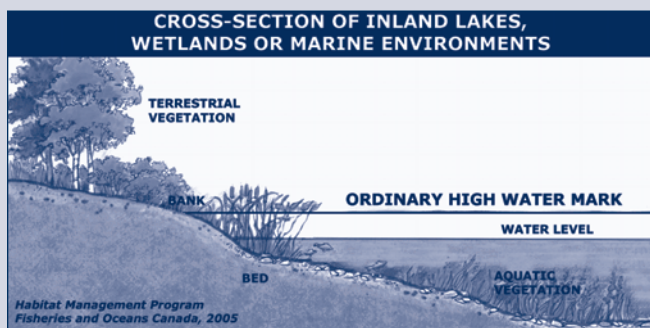
Measures to Protect Fish and Fish Habitat when Placing Underwater Cables

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 extensive clearing of riparian vegetation, the removal of select plants may be necessary to accommodate the cable. This removal should be kept to a minimum.
3. Where cables are buried within 10 metres of the HWM, time the installation to prevent disruption to sensitive fish life stages by adhering to appropriate fisheries timing windows (see the Northwest Territories In-Water Construction Timing Windows).

4. Isolate any in-water trench work to contain suspended sediment and prevent it from entering the surrounding waters.
5. Install effective sediment and erosion control measures on land before starting trench work to prevent entry of sediment into the water body. Inspect them regularly during the course of construction and make all necessary repairs if any damage occurs.
6. Operate machinery on land or on water (i.e., from a barge or vessel) in a manner that minimizes disturbance to the banks or bed of the water body.
 - 6.1. Machinery is to arrive on site in a clean condition and is to be maintained free of fluid leaks.
 - 6.2. 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.
 - 6.3. Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.
 - 6.4. Restore banks to original condition if any disturbance occurs.
7. Relocate any fish trapped within an isolated area to the main water body before starting any trenching.
8. During dry land trenching, stockpile the material that is moved from the bank of the water body (below the HWM) and return it to its original location once the cable is installed.
9. If any material (e.g., rock, cobble, woody material) is moved to place the cable on the bottom, it should be relocated to a similar depth within the water body in close proximity to its original location.
10. Restore the original contour, gradient and bottom of the water body, bank and shore. Allow sediment to fully settle inside any isolated area before removing sediment and erosion control measures.
11. Vegetate any disturbed areas by planting and seeding preferably with native trees, shrubs or grasses and cover such areas with mulch to prevent erosion and to help seeds germinate. 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. If re-vegetation is not possible due to climatic extremes and/or lack of appropriate seed or stock, the site should be stabilized using effective sediment and erosion control measures. In areas with permafrost, care should be exercised to ensure these measures do not cause thawing or frost heave.
 - 11.1. Maintain effective sediment and erosion control measures until re-vegetation of disturbed areas is achieved or until such areas have been permanently stabilized by other effective sediment and erosion control measures, in the event that re-vegetation is not possible.

Definition:

Ordinary high water mark (HWM) – The usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “active channel/bank-full level” which is often the 1:2 year flood flow return level. In inland lakes, wetlands or marine environments it refers to those parts of the water body bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs this refers to normal high operating levels (Full Supply Level).



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Aussi disponible en français

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