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A Guide to Working In and Around Fish Habitat

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This short document has been prepared to assist you in understanding what you need to know prior to working in and around fish habitat. It is not intended to replace your understanding of legal or contractual obligations.

What is Fish Habitat

Under the *Fisheries Act*, fish habitat is defined 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 process (Fisheries Act Section 34(1))”.

In other words, the habitats include not only the water in rivers, lakes, streams and oceans, but also the quality of that water and the total surroundings in which plants and other life forms interact to make fish life possible. The vegetation adjacent to the waterway is a critical part of fish habitat as it provides nutrients, shade and buffers waterways from sedimentation and pollution during surface runoff.

Fisheries Act

Prohibitions ***unless authorized:***

- Obstruction of fish migration (Fisheries Act Sections 22 and 26)
 - Cannot install or allow any material (rock, log, slide, dam, perched culvert) to impede the free passage of fish at all life stages.
- Destruction of fish (Section 32)
 - Cannot destroy fish by any means other than fishing.
- Harmful Alteration, Disruption, Destruction (HADD) (Section 35)
 - Cannot change the natural courses and processes of fish habitat.
- Depositing of substances deleterious to fish in waters frequented by fish (Section 36)
 - It is unlawful to deposit a harmful substance either directly into a fish-bearing stream, or into a place like the top of a bank or in a ditch that leads to a fish-bearing stream.
 - Deposit means any discharging, spraying, releasing, spilling, leaking, seeping pouring, emitting, emptying, throwing, dumping or placing.
 - Deleterious (toxic or harmful) means any substance (e.g. petroleum products, concrete wash, soil/sediment) that is harmful to fish, water quality or limits the use by fish. It can also be considered deleterious if the material impairs a fish's ability to reproduce, to capture its food, to make the transition from freshwater to the sea, or if it causes a fish to be more susceptible to disease or predation.

Prior to Starting Work Know Your Plan and Avoid Problems!

What You Can Do

Due Diligence

It is your responsibility when working in and around water to:

1. Recognize and address the potential impacts to aquatic and riparian habitats, water quality and quantity, fish, public safety and property from your proposed works;
2. Recognize and address the need to conduct your works in a manner that complies with the law and avoids, mitigates or lessens potential impacts to aquatic and riparian habitats, water quality and quantity, fish and wildlife populations and public safety and property;
3. Ensure the protection of fish and their habitats including species at risk;
4. Ensure the protection of properties and human health;
5. Ensure the appropriate permits and authorizations have been obtained from all regulatory agencies before proceeding with activities;

Avoid a HADD (Harmful Alteration, Disruption, Destruction)

Work near streams can usually avoid a HADD of fish habitat if the work spans the stream (including streambanks) or can be undertaken without:

- disturbing instream fish habitat
- encroaching within the stream channel (a watercourse that contains flowing water at least part of the year, in other words it can still be a stream if it is dry or partially dry) or active floodplain (level area adjacent to the stream that water periodically floods into); or
- causing excessive, avoidable or irreplaceable loss of riparian vegetation

What You Cannot Do

Cause an Unauthorized HADD

Any works within fish habitat (includes the water and the surrounding (riparian area) vegetation) has the *potential to create a HADD* unless precautions are taken.

If work near a stream or in a stream will result in a HADD, you must have an Authorization from ***Fisheries and Ocean Canada*** before commencing work. All other works are assumed to be completed without creating a HADD.

For Crossing Sites, ***unless authorized***, this means ***NO***:

- Placement of riprap within the stream channel
- Place of any portion of the crossing structure within the stream channel
- Removal of riparian vegetation except for the placement of abutments and rock protection upslope of the stream banks (retain vegetation adjacent to the streambank)
- Storage of construction material, waste or spoil within the riparian management area
- Construction of pullouts within the riparian management area
- Extraction of road building material from quarries or ditchlines within the riparian management area
- Construction of ditches to direct runoff to the stream
- Inputting of materials (wood, rock etc) into the stream
- Disturbance of the stream banks
- Removal of instream material (wood or rock)
- Machinery working within the watercourse

- Machinery crossing the stream channel in areas of highly erodable soils and steep crossing locations without protective measures in place
- Machinery crossing the stream channel outside the instream timing windows unless permitted by agencies (during the window must be done in such a manner that it does not create a HADD)

Fisheries Window

Timing windows (periods of least risk) are periods of time when work in and about a stream can be conducted with reduced risk to fish and fish habitat. Anytime that any works comes into contact with or impacts fish habitat is considered “instream works”.

Although the timing window is a time of reduced risk, fish (juvenile or adult) may still be present on site. Care must still be taken to avoid harming fish and fish habitat.

It is a period of time, **when notifications are completed and a suitable plan is in place (i.e. will not create a HADD)**, that equipment can cross or work within a stream.

Ministry of Environment Notifications are required for any instream works (work within or on the banks of a stream, equipment within/crossing the stream) as per Section 9 of the Water Act. Notification can be made on the following site: <http://wlapwww.gov.bc.ca/vir/wateract/index.html>

Outside the timing window you can proceed if:

- The structure does not encroach on the stream channel width, no work is proposed within the stream channel of a fish stream or fisheries sensitive zone, and the risk of sediment delivery is low.
- The work is on a non-fish stream and the appropriate measures are undertaken to prevent the delivery of sediments into fish habitat.
- The streambed is completely dry and there is NO potential for a HADD or future erosion and sediment concerns.
- Works is on a non-fish bearing stream that is a direct tributary to a fish stream and the site can be isolated by keeping the site dry by pumping or otherwise diverting water flow around the worksite.

During a timing window you can proceed if:

- You have completed the necessary notifications and a suitable plan is in place for the following:
 - Cross the waterway with a machine
 - Place any material within the stream channel (permanent or temporary). This may require approvals from regulatory agencies.
 - Protection measures such as site isolations, fish removals, sediment controls and shutdowns are undertaken taken as required (prior to or during or post construction)
 - The Environmental Monitor, if a job requirement, is on site.
 - All crews working on the project are aware of the work plan (including protection measures) and any recommendations from the regulatory agencies.

Timing windows as listed in provincial and federal documents are approximations and may be varied with consultation of local agencies. Water temperatures, water levels and fish growth stage are an integral part of determining local windows.

Role of the Environmental Monitor

The Environmental Monitor (EM) is on site to:

- Ensure that works are completed in compliance with the applicable regulations and legislation
- Ensure compliance with the approved Work Plan or authorize changes
- Ensure due diligence for works near aquatic habitat is being conducted
- Has the authority to make a decision on the contractor's Best Management Plans (crossing sites, sediment control measures, vegetation removal and techniques etc) produced to minimize the impacts of the works on the aquatic environment
- Can determine the potential for impacts (HADD) to fish habitat during certain activities such as machinery crossing a stream, removal/cutting of instream material (i.e. log in way of bridge installation) or vegetation removal.
- Has authority from land owner/licencee to issue a Stop Work order if there is the potential to impact fish and or their habitats
- May carry out necessary fish salvage operations
- Will promote environmental awareness to onsite crews
- Will have a pre-work onsite review of the proposed works with all workers
- Liaise with regulatory agencies.
- Depending on the nature of the works and the sensitivity of the site, the EM may be on site continually or may make periodic site visits.

The use of an Environmental Monitor is recommended by the agencies. The Environmental Monitor is part of your team to ensure there is a safe crossing structure installed that does not impact fish or fish habitat.

The Environmental Monitor must be informed of plans prior to work commencing.

The EM must have input into or be on site prior to the site being accessed by construction crew:

- New construction
 - Before road is sub-graded to crossing, riparian vegetation is removed or machinery crosses streams
- Rebuilds or Deactivation
 - Prior to any works starting

References

Canada's Fish Habitat Law

http://www-heb.pac.dfo-mpo.gc.ca/water_quality/fish_and_pollution/fish_act_e.htm

Canadian Waters Info Centre – Policy for the Management of Fish Habitat (Fisheries and Oceans Canada)

http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/legislation-lois/policies/fhm-policy/index_e.asp

Canadian Waters Info Centre – Working In and Around Water (Fisheries and Oceans Canada)

http://www.dfo-mpo.gc.ca/canwaters-eauxcan/water-eau/process_e.asp

Standards and Best Management Practices for Instream Works (Ministry of Environment)

<http://www.env.gov.bc.ca/wld/documents/bmp/iswstsbpsmarch2004.pdf>

Fish-stream Crossing Guidebook (Forest Practices Code of British Columbia)

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/FPCGUIDE/Guidetoc.htm>



Potential HADD

Example of excessive disturbance to fish bearing stream.

Grass seed does not compensate for loss of riparian vegetation.

Potential HADD

Example of excessive removal of streamside vegetation in a fish bearing stream.

This is a loss of cover for fish and there is no buffer to reduce sediment transport to the stream.



No Potential HADD

An example of an excellent bridge installation.

The structure spans the stream, without impacting the channel or riparian vegetation. Abutment protection is behind a vegetated buffer.

