Habitat Officer's Terms and Conditions for changes in and about a stream specified by Ministry of Environment Habitat Officers, Okanagan Region

Section 42 (1) of the *Water Regulation* gives authority to a Habitat Officer to add specific conditions to ensure the protection of habitat in addition to the conditions of general application. Under this authority, Ministry of Environment (MoE) Habitat Officers, Okanagan Region, require the following mandatory terms and conditions:

42 (1) To protect habitat, a person making a change in and about a stream[1] under this regulation, other than under section 44(1)(o) to (s) or (2), must make that change in accordance with terms and conditions specified by the habitat officer with respect to

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a) The timing window or the period or periods of time in the year during which the change can proceed without causing harm to fish, wildlife or habitat,

Windows of least risk for fish and wildlife, including some species at risk, in Okanagan Region can be found on the work windows webpage:

http://www.env.gov.bc.ca/wsd/regions/okr/wateract/workwindows.html

Fish and Fish Habitat:

1. All activities in fish streams, as well as tributaries that have a risk of depositing sediment into fish streams, must be undertaken within a window of least risk to fish and fish habitat. Windows of least risk are designed to protect all fish species known to occur in a stream.
2. **If works are proposed outside the listed windows the proponent must engage a qualified professional** to assess species and habitats present and determine if a site specific plan can be developed to ensure compliance with the *Fisheries Act*.
3. The recommendations and the technical rational for the plan must be developed, signed and sealed by an appropriately qualified professional(s). A report must be maintained by the proponent in the event the works are monitored or a compliance inspection is conducted.
4. If impacts cannot be mitigated to avoid the potential for a harmful alteration, disruption or destruction to fish and/or fish habitat, and the proponent wishes to continue to seek approval for the operations to proceed, the proponent must proceed with the process for obtaining an authorization from the Federal Department of Fisheries and Oceans (outlined in section (h) below).
5. Notwithstanding the above, the fisheries timing window is not applicable if the stream channel is naturally dry (no flow), or frozen to the bottom, at the worksite and the instream activity will not adversely impact fish habitat (e.g. result in the introduction of sediment into fish habitat or damage to fish habitat).

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[1]. A "stream" is defined in the *Water Act* as "a natural watercourse or source of water supply, whether usually containing water or not, ground water, and a lake, river, creek, spring, ravine, swamp and gulch". For the purposes of this document, the definition of "stream" includes all those watercourses that are considered to be fish habitat, including channelized streams, and ditches that are fish habitat.

Wildlife:

1. Most species of wildlife are at their highest risk for disturbance during the period where they raise their young.
2. Some may be at risk during their dormant or hibernating period.
3. Wildlife observation records can be obtained through the Conservation Data Centre http://www.env.gov.bc.ca/cdc for species at risk.
4. Habitat Wizard http://www.env.gov.bc.ca/habwiz/ provides observation records for other species.
5. The absence of an observation record does not confirm that a species is not present.
6. **A qualified professional may be able to determine minor variances to these least risk work windows based on the location in the region and species presence.**

NOTE: In all cases, minimize the amount of time the work site is in a disturbed state by completing work as quickly as possible, while considering worker safety and minimizing environmental risk.

b) The minimum instream flow or the minimum flow of water that must remain in the stream while the change is being made,

The natural rate of water flow must be maintained upstream and down stream of the worksite during all phases of instream activity.

c) The removal of material from the stream or stream channel in connection with the change,

1. In fish streams, the permanent removal of stable, naturally occurring material from the stream or stream channel is not permitted.
2. In non fish streams with a species at risk, or habitat of a species at risk, the permanent removal of stable, naturally occurring material from the stream or stream channel is not permitted.
3. In non-fish bearing streams without species at risk, the permanent or temporary removal of stable, naturally occurring material must be minimized and completed only as necessary to make the change in accordance with Part 7 of the *Water Regulation*.
4. The removal of material must not lead to stream channel instability or increase the risk of sedimentation into the watercourse.
5. Any spoil materials must be placed in a manner that ensures that sediment, or debris, does not enter the watercourse.
6. The spoil must be placed where it will not impact riparian habitats or impact habitats of species at risk

d) The addition of substance, sediment, debris or material to the stream or stream channel in connection with the change,

1. Instream activities must be conducted in the dry (no water present within the worksite) and the worksite must be isolated from water flowing in the stream channel.
2. Measures must be taken to ensure that no harmful material (e.g. fuel and other hydrocarbons, soil, road fill, or sediment), which could adversely impact water quality, fish and other aquatic life, species at risk and/or fish habitat(including riparian and or emergent vegetation), can enter the wetted perimeter as a result of the project activities.
3. All equipment must be located and operated outside of the wetted perimeter of the stream unless operated from a barge where deleterious substances will not enter the water and in a manner that will not result in grounding of the barge.
4. Equipment used in close proximity to the wetted perimeter must be free of deleterious material (e.g. hydrocarbons) and in good mechanical condition (e.g. no fuel or hydraulic leaks).
5. Erosion and sediment control structures are to be available onsite and utilized as necessary.
6. Do not work in weather conditions likely to substantially increase the risk of sediment introduction to the stream
7. If approved, beaver dam removal must occur slowly, a portion at a time, in order to minimize scouring and the addition of silt to downstream areas. A dam breach should normally not exceed 0.2 square metres in area (i.e., a typical breach could measure 1.0 metre x 20 centimetres in size). All material removed from a beaver dam must be disposed of in such a manner that it cannot re-enter the stream.

e) The salvage or protection of fish or wildlife while the change is being made or after the change has been made,

1. If dewatering of the worksite is necessary, fish salvage must occur on a fish-bearing stream prior to commencing works. A fish salvage permit must be obtained from the Ministry of Environment prior to commencing salvage activities (http://www.env.gov.bc.ca/pasb/applications/process/scientific_fish_collect.html)
2. If an area is de-watered as a result of beaver dam removal or modification and results in the stranding of fish, then these fish must be salvaged and returned to the stream.
3. Measures must be taken to ensure that operating equipment (e.g. water pumps) does not harm aquatic life.
4. **NOTE** – if you are undertaking an activity in a **red zone** based on known western ridged mussel (*Gonidea angulata*) occurrences (see LLP[1]), salvage mussels and relocate them to an areas with similar site conditions. Salvage must be untaken by a qualified professional and must be consistent with the Department of Fisheries and Oceans (DFO) Salvage Protocol (contact MOE Ecosystems Staff to obtain this protocol). Follow up monitoring is to be conducted for 2 years post relocation and reports provided to the Habitat Officer annually.

f) The protection of natural materials and vegetation that contribute to habitat or stream channel stability,

Minimize disturbance to natural materials and vegetation that contribute to habitat or stream channel stability. In addition to fish habitats this includes protection of riparian habitats for wildlife.

g) The restoration of the work site after the change has been made, and

1. Complete restoration activities (including erosion control), as soon as possible following construction/disturbance.
2. Any disturbed areas must be restored to function as they did in their pre-disturbance condition (e.g. riparian areas, including grasslands). Appropriate native seed/plant/tree species must be used to restore the site to pre disturbance conditions.
3. Restoration must be completed in a manner that will minimize colonization and spread of invasive plants.

h) The requirement to obtain an approval from the federal Department of Fisheries and Oceans in connection with the change.

1. **Proponents are responsible for complying with the federal *Fisheries Act***. No "harmful alteration, disruption, or destruction" (HADD) of fish habitat is authorized by this document.
2. If a qualified professional or Habitat Officer determines a potential HADD may occur as a result of the works, a review for formal "authorization" from DFO is required.
3. If requested, the proponent will need to provide the Habitat Officer more information (including assessments by qualified professionals) to determine if an "authorization" is required from DFO.

NOTE: **If you are constructing a dock (**as defined in the Okanagan Large Lake Foreshore Protocol[1]) **the following applies:**

(A) An approval from DFO is **not required** when:

1. The structure is proposed on a water body not indentified in the Okanagan Large Lake Foreshore Protocol(1) (LLP) or in a **no colour or yellow zone** (as identified in the LLP). In addition, dock construction and design must meet **all** of the conditions and measures outlined in the *Fisheries and Oceans Canada Pacific Region Operation Statement for Dock and Boathouse Construction in Fresh water System*[2] (ROS). If some of the conditions or measures of the ROS cannot be met then you must engage a qualified professional (fish biologist) to assist you in your design and construction to ensure a HADD does not occur.
2. The structure is proposed in a **red zone** (as identified in the LLP) where there is no shore spawning habitat, and a qualified professional (fish biologist) has been engaged to ensure all of the conditions and measures outlined in the ROS have been followed and that a HADD will not occur.

3. The structure is proposed in a **red zone** (as identified in the LLP), and
   - All ROS conditions and measures will be adhered to, except for Measure 3 (i.e. dock is in a known spawning habitat); and
   - A qualified professional (fish biologist) has been engaged to ensure that a HADD will not occur, and
   - All of the design criteria identified below are adhered to.

   Design Criteria:

   - All instream works must occur during the least risk timing window;
   - Piles are not to be placed within known or potential spawning substrates;
   - The spanning structure (gangway) of spawning area must be no greater than 1.5m in width;
   - The spanning structure (gangway) over the spawning area must be made with light penetrating materials;
   - Dock must be no less than 0.5m above the high water mark, or the Geodetic Survey of Canada datum (if available);
   - Batter boards are not to be used on the dock; and
   - There will be no floating structures.

(B) An approval from DFO is **required** when:

1) A qualified professional or a Ministry of Environment Habitat Officer has indicated a **HADD** will likely occur as a result of your works, regardless of what lake or zone you are in.
2) The structure is proposed in a **black zone** on any of the lakes identified in the LLP (see section 6.1 of the LLP).
3) The structure is proposed in a **red zone (**as identified in the LLP) where there is no shore spawning habitat and the ROS will not be adhered to.
4) The structure is proposed in a **red zone** (as identified in the LLP) where there **is** shore spawning and ROS (except Measure 3), and all design criteria (listed above), will not be adhered to.

[1] Okanagan Region Large Lakes Foreshore Protocol http://www.env.gov.bc.ca/okanagan/esd/ollp/ollp.html

[2] Fisheries and Oceans Canada Pacific Region Operation Statement for Dock and Boathouse Construction in Fresh water Systems (http://www-heb.pac.dfo-mpo.gc.ca/decisionsupport/os/operational_statements_e.htm)