



Authorization No. : 16-HPAC-00518

PARAGRAPH 35(2)(b) *FISHERIES ACT* AUTHORIZATION

Authorization issued to:

City of Chilliwack and Ministry of Forests, Lands and Natural Resource Operations (*hereafter referred to as the "Proponent"*)

Attention to:

Mr. Frank Van Nynatten
Environmental Services and Engineering
City of Chilliwack
8550 Young Road
Chilliwack, BC
V2P 8A4

Mr. John Pattle
Head, Flood Safety Section
Ministry of Forests, Lands and Natural
Resource Operations
Unit 200 - 10428 153rd Street
Surrey, BC
V3R 1E1

Location of Proposed Project:

Nearest community (city, town, village): Chilliwack
Municipality, district, township, county: City of Chilliwack
Province: British Columbia

Name of watercourse, waterbody: Vedder River

UTM Coordinates: 121°59'16.95" West and 49° 5'49.18" North ("Geisbrecht Bar")
 122° 4'45.71" West and 49° 6'18.69" North ("Keith Wilson Bar")

Description of Proposed Project:

The proposed project of which the work(s), undertaking(s) or activity(ies) authorized is a part involves:

- The excavation and removal of sediment from 7 sites on the Vedder River for flow conveyance and flood protection.

The project is more specifically described in the authorization application package prepared by Nova Pacific Environmental, dated May, 2016, including "Proposed 2016 Vedder River Sediment Removal Project", "2014 Vedder River Gravel Excavation – Habitat Changes and Environmental Impacts", "2014 Vedder River Sediment Removal – Environmental Monitors Report", memo dated June 27, 2016 to Teri Ridley, DFO "RE: 16-HPAC-00518 Vedder River gravel removal" (**Schedule 1**) and "Vedder River Management Area Plan Update", prepared by Tetra Tech EBA Inc. dated December 11th, 2015 (**Schedule 2**).

Description of Authorized work(s), undertaking(s) or activity(ies) likely to result in serious harm to fish:

The work(s), undertaking(s), or activity(ies) associated with the proposed project described above that are likely to result in serious harm to fish are:

- The removal of sediment from Giesbrecht, Lickman, Bergman, Railway, Downstream Rail Bridge, Yarrow and Keith Wilson Bars on the Vedder River, Chilliwack, BC.

The serious harm to fish likely to result from the proposed work(s), undertaking(s), or activity(ies), and covered by this authorization includes:

- The permanent alteration of up to 7500 m² (approximately 150 m long by 50 m wide by 3.5 m maximum depth) of instream habitat resulting from the excavation of sediment from Giesbrecht Bar in the Vedder River.
- The permanent alteration of up to 7350 m² (approximately 105 m long by 70 m wide by 3.5 m maximum depth) of instream habitat resulting from the excavation of sediment from Lickman Bar in the Vedder River.
- The permanent alteration of up to 3375 m² (approximately 135 m long by 25 m wide by 4 m maximum depth) of instream habitat resulting from the excavation of sediment from Bergman Bar in the Vedder River.
- The permanent alteration of up to 1800 m² (approximately 90 m long by 20 m wide by 3 m maximum depth) of instream habitat resulting from the excavation of sediment from Railway Bar in the Vedder River.
- The permanent alteration of up to 6460 m² (approximately 190 m long by 34 m wide by 3.75 m maximum depth) of instream habitat resulting from the excavation of sediment from Downstream Rail Bridge Bar in the Vedder River.
- The permanent alteration of up to 5100 m² (approximately 85 m long by 60 m wide by 3 m maximum depth) of instream habitat resulting from the excavation of sediment from Yarrow Bar in the Vedder River.
- The permanent alteration of up to 6650 m² (approximately 190 m long by 35 m wide by 3 m maximum depth) of instream habitat resulting from the excavation of sediment from Keith Wilson Bar in the Vedder River.

Conditions of Authorization

The above described work(s), undertaking(s) or activity(ies) that is likely to result in serious harm to fish must be carried on in accordance with the following conditions.

1. Conditions that relate to the period during which the work(s), undertaking(s) or activity(ies) that will result in serious harm to fish can be carried on:

The work(s), undertaking(s) or activity(ies) that results in serious harm to fish is authorized to be carried on during the following period:

From: Date of Issuance

To: September 15th, 2016

If the Proponent cannot complete the work(s), undertaking(s) or activity(ies) during this period, Fisheries and Oceans Canada (DFO) must be notified in advance of the expiration of the above time period. DFO may, where appropriate, provide written notice that the period to carry on the work, undertaking or activity has been extended.

The periods during which other conditions of this authorization must be complied with are provided in their respective sections below. DFO may, where appropriate, provide written notice that these periods have been extended, in order to correspond to the extension of the period to carry on a work, undertaking, or activity.

2. Conditions that relate to measures and standards to avoid and mitigate serious harm to fish:

- 2.1. Sediment and erosion control measures must be in place and shall be maintained, such that release of sediment is avoided at the location of the authorized work(s), undertaking(s), or activity(ies).
- 2.2. Works shall be conducted in a manner that prevents the death of fish (refer to section 2 of the *Fisheries Act* for the full definition of fish).
- 2.3. All works shall be conducted in isolation of flowing water.
- 2.4. Fish salvage(s) at the Project site shall be conducted and any necessary permits to conduct the salvage(s) shall be obtained.
- 2.5. All works shall be conducted to minimize fish stranding to the greatest extent possible.
- 2.6. Guidelines and constraints identified in Table 3 of **Schedule 1** (page 7 of "Proposed 2016 Vedder River Sediment Removal Project") shall be followed.
- 2.7. Mitigation plans for each of the seven bars identified in Schedule 1 ("Proposed 2016 Vedder River Sediment Removal Project") shall be implemented.
- 2.8. Existing access and haul routes identified in **Schedule 1** ("Proposed 2016 Vedder River Sediment Removal Project") shall be used.
- 2.9. Any disturbed riparian vegetation shall be replaced with equal or greater number of native plant species.
- 2.10. A Qualified Environmental Professional (QEP) must monitor the implementation of avoidance and mitigation measures to prevent serious harm to fish beyond that covered by this Authorization.
- 2.11. Contingency measures shall be put in place if monitoring required in condition 3 below indicates that the measures and standards to avoid and mitigate serious harm to fish are not successful.

3. Conditions that relate to monitoring and reporting of measures and standards to avoid and mitigate serious harm to fish

- 3.1. The Proponent shall monitor the implementation of avoidance and mitigation measures referred to in section 2 of this authorization and report to DFO, by December 15th, 2016, and indicate whether the measures and standards to avoid and mitigate serious harm to fish were conducted according to the conditions of this Authorization. This shall be done, by:

- 3.1.1. Providing dated photographs and inspection reports to demonstrate effective implementation and functioning of mitigation measures and standards described above to limit the serious harm to fish to what is covered by this Authorization.
 - 3.1.2. Providing details of any contingency measures that were followed, to prevent impacts greater than those covered by this Authorization in the event that mitigation measures did not function as described.
 - 3.2. If monitoring indicates that the measures and standards to avoid and mitigate serious harm to fish are not successful, the proponent will report any potential issues of non-compliance to DFO's Observe, Record and Report line (1-800-465-4336) and implement appropriate contingency mitigation measures.
4. **Conditions that relate to the offsetting of the serious harm to fish likely to result from the authorized work, undertaking or activity:**
 - 4.1. Offsetting measures will follow the design plans and parameters outlined in: "Proposed 2016 Vedder River Sediment Removal Project", dated May 2016, prepared by Nova Pacific Environmental (**Schedule 1**).
 - 4.2. As per the offsetting objective outlined in **Schedule 1** ("Proposed 2016 Vedder River Sediment Removal Project"), all reasonable efforts are to be made to optimize fish habitat outcomes as a result of the excavations.
 - 4.3. Additional offsetting measures include habitat enhancements, shall be incorporated where appropriate provided the enhancements will not result in serious harm not identified above :
 - 4.3.1. Site # 2 Lickman Bar: large woody debris will be keyed in around excavation site.
 - 4.3.2. Site #3 Bergman Bar: habitat excavation along the left bank, upstream and downstream of the main pit involving deepening the left bank microchannel for improved rearing capacity, reduced fish stranding and additional Chum spawning habitat.
 - 4.3.3. Site # 4 Railway Bar: habitat excavation at the downstream corner of pit along bank to maintain habitat values of small channel downstream of excavation.
 - 4.3.4. Site #5 Downstream of Rail Bridge: habitat excavation along the right bank, deepening the secondary channel and keying in large woody debris into the habitat channel and adjacent areas.
 - 4.3.5. Site #6 Yarrow Bar: maintaining a buffer zone for the microchannel, habitat excavation along the left bank, upstream and downstream of the main pit to improve flows, and keying in large woody debris.
 - 4.3.6. Site #7 Keith Wilson Bar: habitat excavation along right bank involving pools and sections of microchannel and keying in large woody debris.
 - 4.3.7. The Proponent shall provide no less than 1000 m³ of gravel for use by DFO to enhance spawning sites in the Chilliwack/Vedder River. The storage site for this gravel stockpile shall be chosen in consultation with DFO Habitat Restoration Unit (Annacis Island at 604-666-8266).
 - 4.4. All fish habitat offsetting measures shall be completed by September 15th, 2016.
 - 4.5. All fish habitat offsetting measures shall be considered completed and functioning when each site achieves an increased or neutral habitat rating and a positive or neutral overall habitat score.

- 4.6. If the results of monitoring as required in condition 5 indicate that the offsetting measures are not completed by the date specified and/or are not functioning according to the above criteria in 4.5, the Proponent shall give written notice to DFO and put in place contingency measures and associated monitoring measures to ensure the offsetting is completed and/or functioning as required by this Authorization.
- 4.6.1. In the event that the habitat assessment score and rating reveal offsetting measures are not functioning, the proponent will determine the reason for failure(s), develop a contingency plan to address the failure(s) and implement corrective action(s) within one calendar year to bring offsetting measures to a level consistent with the standard stated in the Authorization conditions 4.5.
- 4.6.2. Contingency plans shall be submitted to DFO for review and approval prior to implementation.
- 4.6.3. Following implementation of an offsetting contingency plan, the Proponent will monitor in accordance with the standards as stated in the Authorization conditions 5.1.1.
- 4.7. The Proponent shall not carry on any work(s), undertaking(s) or activity(ies) that will adversely disturb or impact the offsetting measures.

5. Conditions that relate to monitoring and reporting of implementation of offsetting measures (described above in section 4):

- 5.1. The Proponent shall report to DFO on whether the offsetting measures were conducted according to the conditions of this Authorization by providing the following:
- 5.1.1. An assessment report outlining habitat changes and environmental impacts for each site by implementing the following:
- 5.1.1.1. Detailed mapping of habitat conditions for each bar following the Vedder River Habitat Assessment Protocol (**Schedule 1** and **Schedule 2**), which involves groundtruthing, aerial photography pre-excavation and post-excavation, approximately one year later, at similar river discharge rates, river cross-section surveys and hydraulic modelling.
- 5.1.1.2. Detailed assessment of habitat types and habitat ratings for each site following the Vedder River Habitat Assessment Protocol (**Schedule 1** and **Schedule 2**).
- 5.1.1.3. Geo-referenced photographic assessment of the offsetting measures 4.3.1. to 4.3.6.
- 5.1.1.4. Identification of any functional concerns with the offsetting measures and description of any remedial measures taken.
- 5.1.2. A confirmation receipt from DFO Habitat Restoration Unit regarding the completion of 4.3.7 by December 31st, 2016.
- 5.2. The Proponent shall submit 1 monitoring report, by December 31st, 2017 to ReferralsPacific@dfo-mpo.gc.ca with reference to DFO file: 16-HPAC-00518.

Authorization Limitations and Application Conditions

The Proponent is solely responsible for plans and specifications relating to this Authorization and for all design, safety and workmanship aspects of all the works associated with this Authorization.

The holder of this Authorization is hereby authorized under the authority of Paragraph 35(2)(b) of the *Fisheries Act*, R.S.C., 1985, c.F. 14 to carry on the work(s), undertaking(s) and/or activity(ies) that are likely to result in serious harm to fish as described herein. This Authorization does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

This Authorization does not permit the deposit of a deleterious substance in water frequented by fish. Subsection 36(3) of the *Fisheries Act* prohibits the deposit of any deleterious substances into waters frequented by fish unless authorized by regulations made by Governor in Council.

This Authorization does not permit the killing, harming, harassment, capture or taking of individuals of any aquatic species listed under the *Species at Risk Act* (SARA) (s. 32 of the SARA), or the damage or destruction of residence of individuals of such species (s. 33 of the SARA) or the destruction of the critical habitat of any such species (s. 58 of the SARA).


At the date of issuance of this authorization, no individuals of aquatic species listed under the *Species at Risk Act* (SARA) were identified in the vicinity of the authorized works, undertakings or activities.

The failure to comply with any condition of this Authorization constitutes an offence under Paragraph 40(3)(a) of the *Fisheries Act* and may result in charges being laid under the *Fisheries Act*.

This Authorization must be held on site and work crews must be made familiar with the conditions attached.

This Authorization cannot be transferred or assigned to another party. If the work(s), undertaking(s) or activity(ies) authorized to be conducted pursuant to this Authorization are expected to be sold or transferred, or other circumstances arise that are expected to result in a new Proponent taking over the work(s), undertaking(s) or activity(ies), the Proponent named in this Authorization shall advise DFO in advance.

Date of Issuance: JUL 22 2016

Approved by: 
Rebecca Reid
Regional Director General
Pacific Region
Fisheries and Oceans Canada