



Fisheries and Oceans
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March 15, 2024

Our file Notre référence
23-HPAC-01197

City of New Westminster
ATTENTION: Brittany Tom
511 Royal Avenue
New Westminster, BC
V3L 1H9

Via email: btom@newwestcity.ca

Dear Brittany Tom:

Subject: Queensborough Dike Shoreline Rehabilitation Location 1 – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on December 8, 2023. We understand that you propose to:

- Armour 130 m of Fraser River shoreline with riprap to rehabilitate the existing slope protection
- Construct a 1.5 m wide vegetated bench approximately half-way up the armouring
- Remove old timber structures
- Remove invasive plant species and replant areas above the top of the armouring (for an approx. cumulative aquatic footprint of 1130 m² and 667 m² riparian)

Our review considered the following information:

- The information included in the Project Request for Review submitted by Erika Grebeldinger via email (dated December 8, 2023) including:
 - RFR Form (dated December 7, 2023)
 - Design Basis for Queensborough Dike Shoreline Protection Rehabilitation Location 1 (dated November 16, 2023)
 - Construction Environmental Management Plan – Location 1 (dated December 5, 2023)
 - Design Drawing Package – Queensborough Shoreline Protection Rehabilitation Location 1 (dated November 27, 2023)
 - Habitat Assessment Location 1 (dated December 5, 2023)

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*; and
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*.

The aforementioned outcomes are prohibited unless authorized under their respective legislation and regulations.

To avoid and mitigate the potential for prohibited effects to fish and fish habitat (as listed above), we recommend implementing the measures listed below:

- Works should be monitored full-time during start-up and any sensitive activity. The environmental monitor must be an appropriately qualified professional and ensure mitigation measures are implemented for the protection of fish and fish habitat. The QEP should monitor for compliance with the *Fisheries Act* and to ensure appropriate implementation of environmental best management practices during construction (e.g., DFO's Measures to Protect Fish Habitat: <https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>).
- In-water works, undertakings and activities are to be scheduled to respect timing windows to protect fish, including their eggs, juveniles, spawning adults, and/or the organisms on which they feed and migrate. The appropriate standard least risk timing window for fish and fish habitat in this section of the Fraser River estuary is June 16th to February 28th.
 - However, due to sensitivities associated with earlier timing of the upstream spawning migration for eulachon (*Thaleichthys pacificus*), a species vulnerable to acoustic disturbance, DFO recommends that work be scheduled to occur between June 16th and January 30th.
 - Additionally, please note that juvenile white sturgeon (*Acipenser transmontanus*) are known to utilize habitats in the vicinity of where your proposal is located and may be present in higher densities up to November 30th. If works are scheduled to occur between June 16th and November 30th, implement additional mitigation that the project's Qualified Environmental Professional (QEP) may deem necessary to avoid potential adverse impacts to sturgeon.
- Monitor for migration of fish species in the vicinity of the works (e.g., juvenile salmonid outmigration). If fish are present in the vicinity of the toe of the bank during riprap placement works, works should be suspended, or additional mitigations are to be implemented to reduce the likelihood of impacts to fish.
- Undertake works during dry weather and low water conditions.
- Land-based machinery operation in the high intertidal and backshore areas should occur during low tides when the high intertidal and backshore habitats are dry.
- Limit impacts to riparian vegetation to those proposed in the Application package.
 - Avoid tree removal where possible.

- If access over sensitive vegetation cannot be avoided, use methods to reduce soil compaction (e.g., swamp mats, pads).
- Proposed riparian replanting should be conducted as soon as possible to minimize erosion and stability impacts.
- Monitoring of planted riparian vegetation for survival is recommended.
- Revegetate the disturbed area with native species suitable for the site.
- Minimize the extent of riprap placement in wetted habitat to the extent practicable.
- Complete the works as quickly as possible once they are started.
- If present, relocate large sessile or low motility invertebrates from within the footprint of, and prior to, the works directly affecting the intertidal foreshore. Salvage any sessile invertebrates from the materials and return them to appropriate habitat.
- If there is a risk to a marine mammal from direct contact, temporarily suspend works until the individual has left the area or has not been sighted for 30 minutes.
- Avoid introducing sediment in the water, like silt, clay and sand.
- Develop and implement an Erosion and Sediment Control plan for all phases of the project.
- Regularly observe the watercourse or water body for signs of suspended sediment during all phases of the project and take corrective action when and where required.
- Do not deposit any substances deleterious to fish or fish habitat directly or indirectly into the watercourse or downstream reaches of the watercourse.
- Develop a plan to prevent deleterious substances from entering a watercourse or water body. Implement a response plan immediately in the event of a spill of a deleterious substance (including sediment).

Additional measures for timber pile extraction:

- Vibratory extraction is the preferred method for pile extraction followed by direct pulling. Contractors should be experienced in creosote pile removal. Piles should be removed slowly to minimize turbidity in the water column as well as sediment disturbance.
- Deploy containment booms around creosote piles prior to removal.
- When removing piles and old timber structure components, materials should be lifted directly up and out of the water and placed directly onto the shore—without dragging materials along the river bed.
- If piles are required to be cut and left in place, it is recommended that they are cut off below the mudline.
- Dispose of removed creosote piles so that deleterious substances do not enter aquatic environments.
- Manage sediment that may be adhered to removed timber piles by disposing of the sediment in an appropriate location (e.g., at an upland facility approved to take the material) rather than depositing in fish habitat or in any area where it may re-enter fish-bearing waters.
- Develop and implement a debris management plan for pile and timber structure removal works to address construction materials and debris (e.g., treated wood fragments, sawdust, cuttings, etc.) entering the marine environment.

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal is not likely to result in the contravention of the above mentioned prohibitions and requirements.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act* and the *Aquatic Invasive Species Regulations*.

It is also your Duty to Notify DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to the DFO-Pacific Observe, Record and Report phone line at 1-800-465-4336 or by email at DFO.ORR-ONS.MPO@dfo-mpo.gc.ca.

Please notify the Program by email at (gregory.hart@dfo-mpo.gc.ca) at least 10 days before starting your project, ensuring your file number and appropriate on-site contact information is included. We recommend that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

Please note that this Letter of Advice does not provide relief from the obligations set out in the government of British Columbia's Riparian Areas Protection Regulations (RAPR), and cannot be construed to provide authorization pursuant to section 3(2) of the RAPR, for any work, undertaking or activity within the Riparian Assessment Area. For more information on the RAPR, including contacts, please visit: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management/riparian-areas-regulation>.

Please note that the advice provided in this letter will remain valid for a period of 2 years from the date of issuance. If you plan to execute your proposal after the expiry of this letter, we recommend that you contact the Program to ensure that the advice remains up-to-date and accurate. Furthermore, the validity of the advice is also subject to there being no change in the relevant aquatic environment, including any legal protection orders or designations, during the 2 year period.

If you have any questions with the content of this letter, please contact Greg Hart at our Vancouver office by email at gregory.hart@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Duncan Lanoville
A/ Senior Biologist
Fish and Fish Habitat Protection Program

c.c.: Erika Grebeldinger, Advisian, Erika.Grebeldinger@Advisian.com