



Fisheries and Oceans
Canada

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Canada

Région du Pacifique
Direction de la gestion des écosystèmes
Pièce 200 – 401 rue Burrard
Vancouver (C.-B.)
V6C 3S4

May 17, 2021

Our file *Notre référence*
21-HPAC-00285

Seaspan ULC
ATTENTION: George Geatros
203 Esplanade East
North Vancouver, BC V7L 1A1

Via email: ggeatros@seaspan.com

Dear George Geatros:

Subject: Drydock Installations, Burrard Inlet, North Vancouver – 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 March 9, 2021. We understand that you propose to:

- Expand the existing Seaspan Vancouver Drydock facility by installing a new floating work pontoon, two floating drydocks and six (6) steel piles, and relocating the existing Caren drydock.

We understand the following aquatic species listed under the *Species at Risk Act* may use the area in the vicinity of where your proposal is to be located:

- Northeast Pacific Southern Resident Killer Whale listed as Endangered;
- Northeast Pacific Transient Killer Whale listed as Threatened; and
- Pacific Harbour Porpoise, Grey Whale, North Pacific Humpback Whale, Green Sturgeon, and Steller Sea Lion listed as Special Concern.

Our review considered the following information:

- Request for Review package received via email and signed by George Geatros of Seaspan ULC on March 9, 2021 including:
 - *Seaspan Vancouver Drydock Water Lot Project: Habitat Assessment*, prepared by Hatfield Consultants LLP (Hatfield), dated March 2021.
- Additional information received via email from Rebecca Kordas of Hatfield on April 7, 2021 including:
 - *Vancouver Dry Dock Water Lot Project, Project Detail*, Figure 2, Draft, prepared by Hatfield.

- Additional information received via email from Rebecca Kordas of Hatfield on May 12, 2021.

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 the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat, it is important that all proposed measures are implemented as set out in the information that was submitted to the Program in relation to your project. In addition, we recommend implementing the measures listed below to avoid and mitigate the potential for the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat. If there is a conflict between the proposed measures as set out in the information that was submitted to the Program and the following measures, the following measures shall prevail.

- In-water works, undertakings and activities are to be conducted during the least risk to fish work window for Burrard Inlet (inland from Point Grey to Point Atkinson) of August 16 to February 28.
- Works should be monitored full-time during start-up and any in-water works or 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.
- Complete the works as quickly as possible once they are started.
- Schedule work to avoid wet, windy and rainy periods (and heed weather advisories).
- Operate marine vessels in a manner to avoid physical disturbance to the seabed (i.e., prop scour, grounding), with the exception of spuds.
- Avoid placement of piles and spuds on sensitive aquatic vegetation, habitat or significant aggregations of biota and minimize re-positioning of spuds.
- Works will stop immediately if any fish mortality is observed and appropriate mitigations will be initiated.
- Ensure that material such as rock, riprap, or other materials placed on the banks or within the active channel or floodplain of the watercourse is inert and free of silt, overburden, debris, or other substances deleterious to aquatic life.
- Develop and implement an erosion and sediment control plan to avoid and minimize the introduction of sediment into or induced sedimentation in the waterbody.

- Monitor for signs of sedimentation during all phases of the project and take appropriate corrective actions.
- Do not deposit any substances deleterious to fish or fish habitat directly or indirectly into the watercourse or downstream reaches of the watercourse.
- Develop and implement a response plan to avoid a spill of deleterious substances into the watercourse.

Pile Installation

- All pile driving activities are to be conducted during daylight hours in good weather conditions that permit visual observations by a qualified marine mammal observer(s) on-site.
- Install silt curtains and containment booms around piles during installation.
- Vibratory pile installation is recommended as the primary method used for pile installation works. If impact pile driving is necessary, the following additional mitigation measures are recommended:
 - Conduct hydroacoustic monitoring during impact pile driving to monitor underwater sound.
 - Install and use an effective sound attenuation device (e.g., bubble curtain) to reduce peak sound pressure levels to below 206 dB re: 1 μ Pa and a SELcum of 186 dB re: μ Pa²s outside of the sound attenuation device to protect fish and pinnipeds.
 - Establish a cetacean exclusion zone (e.g., perimeter around the noise source) prior to impact pile driving where sound levels are not to exceed 160 dBRMS re: 1 μ Pa at the edge of the cetacean exclusion zone during impact pile driving. Monitor for cetaceans within the cetacean exclusion zone for at least 30 minutes prior to the start of impact pile driving. If a cetacean enters the cetacean exclusion zone, temporarily suspend impact pile driving until the individual has left the exclusion zone or has not been sighted for 30 minutes.
 - The use of a soft start procedure is recommended where the impact energy is gradually increased over a 10 minute period. The soft start procedure is also recommended anytime after there is a break of 30 minutes or more during impact pile driving.
 - If hydroacoustic monitoring indicates sound levels in excess of the above-mentioned thresholds, impact pile driving should cease and only resume after additional mitigation measures are implemented to effectively reduce sound levels below the above-mentioned thresholds.
- If dead or injured fish are observed, pile installation activities shall be halted, and further mitigation measures shall be implemented.

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.

We recommend that you notify this office at least 10 days before starting your project and 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 the advice provided in this letter will remain valid for a period of 1 year 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 1 year period.

If you have any questions with the content of this letter, please contact Courtney Tiechko at our Vancouver office at 236-330-0925 or by email at Courtney.tiechko@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Sincerely,



Sara Jossul
A/Senior Biologist
Fish and Fish Habitat Protection Program

c.c.: Rebecca Kordas, Hatfield Consultants LLP, rkordas@hatfieldgroup.com