

PER No.:	19-023
Tenant:	Lehigh Hanson Materials Ltd.
Project:	Lehigh Materials Surrey Barge Ramp
Project Location:	12366 Musqueam Drive, Surrey, British Columbia
Vancouver Fraser Port Authority SID No.:	SUR330-04001F-004
Land Use Designation:	Industrial
Applicant/Permit Holder:	Lehigh Hanson Materials Ltd.
Category of Review:	B
Date of Approval:	January 28, 2020
Date of Expiry:	January 31, 2021

1 INTRODUCTION

The Vancouver Fraser Port Authority (the port authority), a federal port authority, manages lands under the purview of the *Canada Marine Act*, which imparts responsibilities for environmental protection. The port authority accordingly conducts project and environmental reviews of works and activities undertaken on these lands to ensure that the works and activities will not likely cause significant adverse environmental effects. This project and environmental review report and project permit (the Permit) documents the port authority's project and environmental review of PER No. 19-023: Lehigh Materials Surrey Barge Ramp (the Project) proposed by Lehigh Hanson Materials Ltd., (the Applicant).

This project and environmental review was carried out to address the port authority's responsibilities under the *Canada Marine Act*, and to meet the requirements of the *Impact Assessment Act*, as applicable. The proposed Project is not considered a "designated project" under the *Impact Assessment Act* and an impact assessment as described in the *Impact Assessment Act* is not required. However, the port authority authorization is required for the proposed Project to proceed and in such circumstances, where applicable, Section 82 of *Impact Assessment Act* requires federal authorities to assure themselves that projects will not likely cause significant adverse environmental effects. This review provides that assurance. In addition, the port authority considers other interests, impacts and mitigations through the project and environmental review.

The project and environmental review considered the application along with supporting studies, assessments and consultations carried out or commissioned by the Applicant, as well as other information provided by the Applicant. In addition, this project and environmental review considered other information available to the port authority and other consultations carried out by the port authority. A full list of information sources germane to the review is provided in the following pages of this report.

This Permit is the authorizing document allowing the Applicant to proceed with the Project subject to the listed project and environmental conditions.

2 PROJECT DESCRIPTION

Lehigh Hanson Materials Limited (Lehigh) operate an aggregate depot at 12366 Musqueam Drive in Surrey, British Columbia. A barge loading ramp at the site was found to be structurally unsound. Lehigh then undertook unauthorized work, creating a second barge ramp in the western portion of their facility at some time between September and December 2018. On January 30, 2019, the port authority conducted a site visit at Lehigh to investigate the scope of the unauthorized works. During the site visit, the port authority determined a Category B permit would have been required due to the scope of the unauthorized works, which included alteration of the shoreline. The port authority then issued a restoration order to Lehigh requiring that they submit a project permit

application to VFPA for the replacement of the pre-existing barge ramp at the east end of the site. The restoration order also requires Lehigh to decommission the unauthorized barge ramp and complete restoration of the shoreline at the western portion of the site, once the replacement barge ramp is commissioned.

In this project permit, the Project means the physical activities authorized by the port authority to be carried out pursuant to **PER No. 19-023**, as described below.

2.1 Proposed Works

The proposed works include:

- The demolition and salvage of the decommissioned eastern ramp:
 - Delivery replacement ramp and equipment associated with the barge replacement to 12366 Musqueam Drive;
 - Removal of the ramp via a crane-mounted derrick barge; and
 - Extraction of eight (8) timber piles from a barge with a vibratory hammer.
- Installation of a sheet pile wall:
 - A sheet pile wall with an approximate length of 5.7 m, and an approximate height of 8.4 m will be installed from the land side using a land-based Terex 110 HC Crane;
 - Attempts will be made to install the sheet pile wall with a vibratory hammer. Piles may need to be finished using a diesel hammer (I-19).
- Excavation and rip-rap placement:
 - The excavation for the new abutment will be approximately 8 m wide x 9.4 m long and will range in depth from 0 m to 2.1 m.
 - A 0.3m thick layer of rip-rap will be placed in front of the new abutment for protection. This layer will be approximately 8 m long and 6.5 m wide, and will conform to the engineering drawings provided as a part of this permit application.
- Demolition of the current abutment:
 - Demolition of the abutment using a long reach excavator; and
 - Removal of the abutment with a land-based Terex 110 HC crane.
- Installation of new abutment and piles:
 - A land-based Terex 110 HC crane will be used to install an approximately 7.4 m long x 3.1 m wide abutment;
 - Installation of ten (10) foundation piles, approximately 14 meters long comprising 406 mm diameter steel pipe with 12.7 mm wall thickness and a concrete plug at the top of each of the piles.
 - Attempts will be made to install the piles with a vibratory hammer. Piles may need to be finished using a diesel hammer (I-19).
- Installation of the new replacement ramp, counterweights, wires, tackles and hanger bars:
 - A new ramp with approximate dimensions 5.2 m x 20 m will be installed via a crane-mounted derrick. Counterweights and associated infrastructure will all be installed from the derrick
- Salvage and disposal of waste material:
 - Material for offsite disposal will be tested and disposed of at an appropriately licensed facility.

All general construction and physical activities related to the Project shall be conducted from Monday to Saturday between the hours of 7:00 am and 8:00 pm. No construction and physical activities shall take place on Sundays or holidays. All in-water works will be conducted within a silt curtain to contain turbidity. A qualified environmental professional shall monitor all works to ensure that the works are carried out in compliance with this permit. Environmental monitoring reports will be provided to the port authority for review and approval.

Estimated project cost is \$5,000,000. Construction is anticipated to start in January, or early February, 2020. All in water in-water works are expected to be completed prior to the start of the fisheries sensitive period (March 1 to June 15, inclusive). The remaining upland activities are scheduled to be completed before May 31, 2020. Any in-water works that are not completed by March 1, 2020 will be suspended until the end fisheries sensitive period, June 15, 2020.

3 VANCOUVER FRASER PORT AUTHORITY INTERNAL REVIEWS

The following the port authority departments have undertaken and completed a review of these works and confirm that the proposal meets their requirements, subject to the listed project and environmental conditions.

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Planning | <input checked="" type="checkbox"/> Environmental Programs | <input checked="" type="checkbox"/> Engineering |
| <input checked="" type="checkbox"/> Marine Operations | <input checked="" type="checkbox"/> Public Engagement | <input checked="" type="checkbox"/> Indigenous Consultation |

4 INDIGENOUS CONSULTATION

The port authority has reviewed the proposed works and determined that the project may have the potential to adversely impact Aboriginal or Treaty rights.

The following Indigenous groups were consulted:

- a) Katzie First Nation
- b) Kwikwetlem First Nation
- c) Kwantlen First Nation
- d) Musqueam Indian Band
- e) Qayqayt First Nation
- f) Semiahmoo First Nation
- g) Tsawwassen First Nation
- h) Halalt First Nation
- i) Lake Cowichan First Nation
- j) Lyackson First Nation
- k) Penelakut Tribes

The following consultation activities were conducted:

- On November 29, 2019, referral packages were sent to Indigenous groups listed above for review and comment. The referral package included:
 - Permit Application
 - Location Map
 - Barge Inspection report – Hugh Tuttle, P. Eng.
 - Preliminary Field Reconnaissance report – Arrowstone Archaeological Research and Consulting
 - Description of Works – Vancouver Pile Driving
 - Engineering Drawings – Hugh Tuttle, P. Eng.
 - Proposed Construction Schedule – Vancouver Pile Driving
 - General environmental protections for in/over-water works - Vancouver Pile Driving
 - Invasive weeds management plan - Sylvis
- The port authority received comments from Indigenous groups in the form of letters and emails, and conference calls were scheduled to discuss the proposed activities and any questions or comments regarding the project.

Below is a table summarizing key comments received by the port authority and how they were considered as part of the project and environmental review.

Issue	Mitigations and Permit Conditions	Rationale
<p>Concern regarding potential impacts to archaeological resources</p> <p>Interest in archaeological monitoring be conducted as part of project activities</p>	<p>To ensure potential impacts to archaeological resources are mitigated, the port authority will require the permit holder to submit a Chance Find Procedure.</p> <p>Further, the port authority will include the following condition:</p> <p>In the event that evidence of what is suspected to be an archaeological resource is encountered, the Applicant shall:</p> <ul style="list-style-type: none"> a) Immediately stop any activities that might disturb the archaeological resource or the site in which it is contained ("Site"). b) Not move or otherwise disturb the artifacts or other remains present at the Site. c) Stake or flag off the Site to prevent additional disturbances. d) Immediately notify VFPA. <p>In the event archaeological resources are encountered, the port authority will ensure that an appropriately qualified archaeological consultant will be contacted to confirm the nature of the material found. If the material is indeed archaeological in nature, Indigenous groups will be notified and provided the opportunity to be involved in the development of proposed management strategies.</p>	<p>In examining air photos from 1938 to 2016, the development area was historical within the main Fraser River channel, and no previously recorded archaeological sites are situated within the proposed project area. The potential to impact archaeological resources is low.</p>
<p>Interest in environmental monitoring opportunities</p>	<p>As per condition no. 16, the Permit Holder shall engage a qualified environmental professional to monitor the Project in order to ensure that the works are carried out in compliance with this Permit. Monitoring events shall take place as required by the environmental monitor, or VFPA, provided that monitoring will be full time when works are under way that have the potential to adversely affect fish or fish habitat.</p> <p>Additionally, the Permit Holder has committed to providing opportunities for interested Indigenous groups to monitor and be present on the Project site.</p>	<p>The port authority has shared with the Permit Holder, those Indigenous groups who are interested in monitoring opportunities.</p>
<p>Concern regarding potential impacts to fisheries resources in the Fraser River, and requests project timelines adhere to fisheries work time windows</p>	<p>As per condition no. 24, no in-water activities will be conducted during the fisheries sensitive period from March 1 to June 15, inclusive.</p>	<p>The permit conditions included address the concern.</p>

Issue	Mitigations and Permit Conditions	Rationale
Concern regarding use of diesel hammering	No additional mitigation is required.	All piles in the sheet pile wall will be installed using a vibratory hammer. A diesel hammer will only be used if site conditions require the diesel hammer to reach the target depth.
Expressed concern regarding potential impacts to overwintering sturgeon habitat and request for side-sonar scanning during proposed works	As per condition no. 24, no in-water activities will be conducted during the fisheries sensitive period from March 1 to June 15, inclusive.	VFPA is of the view that there is limited potential for adverse effects to sturgeon from proposed activities and that limiting construction from March 1 to June 15 is protective of fish. Therefore, no additional mitigation is required.
Concern regarding removal of contaminated materials and requests all materials are disposed of properly.	Per condition no. 48, the Permit Holder is required to contain and collect debris and waste material in the immediate working area within the Project site. The Permit Holder is also required to dispose of waste material at suitable upland locations and maintain records of off-site disposal.	The permit conditions included address the concern.

Based on the record of consultation, the port authority is of the view that the duty to consult has been met.

5 EXISTING POLICIES OR GUIDELINES

The Project area is designated as “Industrial” in the VFPA Land Use Plan (2014). The works proposed do not represent a change in use of the site, and any further works at this site would require a separate project and environmental review. The Project is therefore compliant with the Land Use Plan.

6 NOTIFICATIONS

6.1 Municipal Notification

The proposed Project was assessed by the port authority to have potential impacts to municipal interests. A notification letter was sent to the City of Surrey on January 14, 2020, notifying them of the proposed Project. The City of Surrey did not submit any comments.

6.2 Adjacent Tenant Notification

The proposed Project was assessed by the port authority to have potential impacts to adjacent tenant interests. A notification letter was sent to Schnitzer Steel Canada Ltd. on January 14, 2020, notifying them of the proposed Project. Schnitzer Steel Canada Ltd. responded to confirm that they did not have any concerns.

6.3 Public Engagement

To meet requirements of section 86 of the *Impact Assessment Act*, VFPA posted a description of the Project and notice of public participation to the Canadian Impact Assessment Registry to provide the public 30 calendar days to comment on the project and provide community knowledge.

6.4 Summary of Public Engagement

At the close of the 30 calendar day public comment period, no comments were received from the public. Given the existing industrial context, the proposed Project was assessed by the port authority to have minimal or no

potential impacts to community interests in the surrounding area either during construction or once the project is completed. Therefore, no construction notification was required.

7 INFORMATION SOURCES

The port authority has relied upon the following sources of information in its review of the Project.

- Application form and materials submitted by the Applicant on behalf of the tenant.
- All Project correspondence from February 6, 2019 to January 16, 2019.
- All plans and drawings labelled PER No. 19-023-A to PER19-023-C
- Email dated 2016-07-25, from Hugh Tuttle to Cybele Heddle, "RE: Lehigh – Surrey Barge Ramp Project" with following attachments:
 - Lehigh – Drawings for Port Metro.zip, November 11, 2019, Hugh Tuttle

8 ENVIRONMENTAL REVIEW DECISION

In completing the environmental review, the port authority has reviewed and taken into account relevant information available on the proposed project, has considered the information and proposed mitigations provided by the Applicant and other information as listed elsewhere in this document, and concludes that with the implementation of proposed mitigation measures and conditions described in the project and environmental conditions section below, the Project is not likely to cause significant adverse environmental effects.

January 29, 2020

ANDREA MACLEOD
MANAGER, ENVIRONMENTAL PROGRAMS

DATE OF DECISION

9 CONCLUSION

In completing the project and environmental review, the port authority concludes that with the implementation of proposed mitigation measures and conditions described in the project and environmental conditions section below, the Project has appropriately addressed all identified concerns.

PROJECT AND ENVIRONMENTAL REVIEW DECISION

Project Permit PER No. 19-023 is approved by:

January 29, 2020

ANDREA MACLEOD
MANAGER, ENVIRONMENTAL PROGRAMS

DATE OF APPROVAL

10 PROJECT AND ENVIRONMENTAL CONDITIONS

The port authority has undertaken and completed a review of the Project in accordance with the *Canada Marine Act* and Section 5 of the Port Authorities Operations Regulations and, as applicable, Section 82 of the *Impact Assessment Act*.

If at any time the Lehigh Hanson Materials Ltd., (the Permit Holder) fails to comply with any of the project and environmental conditions set out in the project permit (the Permit) below, or if the port authority determines that the Permit Holder has provided any incomplete, incorrect or misleading information in relation to the Project, the

port authority may, in its sole and absolute discretion, cancel its authorization for the Project or change the project and environmental conditions to which such authorization is subject.

Pursuant to Section 29 of the Port Authorities Operations Regulations, the port authority may also cancel its authorization for the Project, or change the project and environmental conditions to which such authorization is subject, if new information is made available to the port authority at any time in relation to the potential adverse environmental and other effects of the Project.

The following are the minimum conditions that must be followed by the Permit Holder to mitigate potential or foreseeable adverse environmental and other effects.

All port authority Guidelines and Record Drawing Standards referenced in this document can be located at: <https://www.portvancouver.com/development-and-permits/project-and-environmental-reviews/technical-guidelines/>.

No.	GENERAL CONDITIONS
1.	The Permit Holder must have a valid lease, licence, or access agreement for the Project site prior to accessing the Project site or commencing construction or any other physical activities on the Project site. This Permit shall in no way limit any of the Permit Holder's obligations, or the port authority's rights, under such lease, licence, or access agreement.
2.	The Permit Holder shall at all times and in all respects, comply with and abide by all applicable statutes, laws, regulations and orders from time to time in force and effect, including all applicable environmental, labour and safety laws and regulations.
3.	This Permit in no way endorses or warrants the design, engineering, or construction of the Project and no person may rely upon this Permit for any purpose other than the fact that the port authority has permitted the construction of the Project, in accordance with the terms and conditions of this Permit.
4.	The Permit Holder shall indemnify and save harmless the port authority in respect of all claims, losses, costs, fines, penalties or other liabilities, including legal fees, arising out of: (a) any bodily injury or death, property damage or any loss or damage arising out of or in any way connected with the Project; and (b) any breach by the Permit Holder of its obligations under this Permit.
5.	The Permit Holder is responsible for locating all existing site services and utilities including any located underground. The Permit Holder is responsible for repair or replacement of any damage to existing site services and utilities, to the satisfaction of the port authority, that result from construction and operation of the Project.
6.	The Permit Holder shall undertake and deliver the Project to total completion in a professional, timely and diligent manner in accordance with applicable standards and specifications set out in the sections above entitled Project Description and Information Sources. The Permit Holder shall not carry out any other physical activities unless expressly authorized by the port authority.
7.	The Permit Holder shall cooperate fully with the port authority in respect of any review by the port authority of the Permit Holder's compliance with this Permit, including providing information and documentation in a timely manner, as required by the port authority. The Permit Holder is solely responsible for demonstrating the Permit Holder's compliance with this Permit. Accordingly, the Permit Holder shall be familiar with VFPA's compliance and enforcement program: https://www.portvancouver.com/development-and-permits/compliance/
8.	The Permit Holder shall review the Permit with all employees, agents, contractors, licensees and invitees working on the Project site, prior to such parties participating in any construction or other physical activities on the Project site. The Permit Holder shall be solely responsible for ensuring that all such employees, agents, contractors, licensees and invitees comply with this Permit.

9.	The Permit Holder shall make available upon request by any regulatory authority (such as a Fishery Officer) a copy of this Permit.	
10.	Unless otherwise specified, the Permit Holder shall provide all plans, documents, and notices required under this Permit to the following email address: per@portvancouver.com and referencing PER No.19-023 .	
11.	Unless otherwise specified, all plans, schedules, and other Project-related documentation that the Permit Holder is required to provide under this Permit must be to the port authority's satisfaction.	
12.	The port authority shall have unfettered access to environmental compliance documentation and the Project site at all times during construction without notice.	
13.	The Permit Holder must maintain and retain any records associated with, or produced by, actions or activities undertaken to achieve compliance or that indicate non-compliance with project permit conditions. These records must be made available at the request of the port authority.	
	CONDITIONS – PRIOR TO COMMENCING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES	SUBMISSION TIMING (business days)
14.	The Permit Holder shall submit signed and sealed drawings for proposed works approved for construction by a professional engineer licensed to practice in the Province of British Columbia.	5 business days before commencing construction or any physical activities
15.	The Permit Holder shall submit an Archaeological Chance Find Procedure for the Project site, to the port authority's satisfaction. The Permit Holder shall carry out the Project in accordance with this Procedure, and any subsequent amendments approved by the port authority.	10 business days before commencing construction or any physical activities
16.	The Permit Holder shall engage a qualified environmental professional to monitor the Project in order to ensure that the works are carried out in compliance with this Permit. Monitoring events shall take place as required by the environmental monitor, or VFPA, provided that monitoring will be full time when works are under way that have the potential to adversely affect fish or fish habitat.	Prior to commencing construction or any physical activities
17.	Prior to commencing construction or any physical activities, the Permit Holder shall have in place a spill prevention, containment and clean-up plan for hydrocarbon products (including fuel, oil and hydraulic fluid) and any other deleterious substances. Appropriate spill containment and clean-up supplies shall be available on the Project site at all times and all personnel working on the Project shall be trained on the spill prevention, containment and clean-up plan. The Permit Holder shall carry out the Project in accordance with the spill prevention, containment and clean-up plan.	Prior to commencing construction or any physical activities
18.	At least two days prior to commencing construction or any physical activities, the Permit Holder shall notify the Harbour Master and VFPA Environmental Programs, email: Harbour_Master@portvancouver.com and EnvironmentalPrograms@portvancouver.com.	As per Coast Guard requirements
19.	Prior to the commencement of any vessel-related activities, the Permit Holder shall contact Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS), (email: NAVWARN.MCTSPrinceRupert@innav.gc.ca; Phone: 250-627-3070) regarding the issuance of a Navigational Warning (NAVWARN) to advise the marine community of potential hazards associated with the Project	As per Coast Guard requirements

<p>20.</p>	<p>The Permit Holder must submit a marine construction and staging plan, including the following, for VFPA review and approval:</p> <ul style="list-style-type: none"> a) staging and construction areas; b) dates and hours of operations; c) description of activities taking place; d) participating equipment and vessels (dimensions and load capacities must be included); e) Detailed mooring arrangement of barges during and after working hours; f) Detailed lighting schematic; g) Proposed plan to implement and mitigate the potential for barges to break free from moorage; h) method of preferred communication; and i) special requests and/or additional information. <p>The Permit Holder shall carry out the Project in accordance with the marine construction and staging plan, including any subsequent amendments approved by VFPA.</p>	<p>5 business days prior to commencing construction activities</p>
CONDITIONS – DURING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES		
<p>21.</p>	<p>The Permit Holder shall notify the port authority upon commencement of construction, or any physical activities (e.g., mobilization to the Project site).</p>	
<p>22.</p>	<p>All general construction and physical activities related to the Project shall be conducted from Monday to Saturday between the hours of 7:00 am and 8:00 pm. No construction and physical activities shall take place on Sundays or holidays. These hours shall not be modified without prior approval of the port authority. To request permission to conduct activities outside these hours, the Permit Holder must submit a written request no less than 20 business days prior to the desired start date.</p>	
<p>23.</p>	<p>The Permit Holder shall notify the port authority within two business days of any complaints received from the community and stakeholders during construction and indicate how the Permit Holder has responded to such complaints.</p>	
<p>24.</p>	<p>There shall be no in-water works during the fisheries sensitive period from March 1 to June 15 inclusive, unless a plan describing proposed activities and additional mitigation measures is provided to VFPA's satisfaction. VFPA shall be notified of any DFO exemptions allowing works within the fisheries sensitive period.</p>	
<p>25.</p>	<p>The Permit Holder shall remove all abandoned utilities from the project site, both underground and aboveground. At locations of connection to municipal work (i.e., at property lines), the abandoned utilities shall be capped.</p>	
<p>26.</p>	<p>The Permit Holder shall ensure that an appropriately qualified archaeological monitor be on the Project site at all times during ground disturbing activities with the potential to intrude into native soils.</p>	
<p>27.</p>	<p>The Permit Holder shall provide opportunities for interested Indigenous groups to monitor and be present on the Project site at all times during ground disturbing activities with the potential to intrude into native soils.</p>	
<p>28.</p>	<p>The Permit Holder shall remove piles completely by extracting the entire length of pile from the river. If physical conditions result in the breakage of timber piles, the Permit Holder shall remove the remaining pile stubs with the least amount of disturbance of the river as possible. Particular effort shall be made to extract or reduce the height of pile stubs which may pose a hazard to navigation. If pile stubs are left in place, the location shall be surveyed and the location coordinates provided to VFPA within five days of Project completion.</p>	

29.	Piles shall be driven with a vibratory or drop hammer. Piles shall not be installed using a diesel or hydraulic hammer or other technology such as drilling without review and authorization by VFPA.
30.	The Permit Holder shall cap any exposed hollow pipe piles to prevent wildlife entrapment.
31.	Sediments contained within piles after driving shall be left in place. If it is determined that they must be removed for engineering reasons, the Permit Holder shall provide a rationale, to VFPA's satisfaction, prior to initiating the proposed physical activities.
32.	The Permit Holder shall not permit barges or other vessels used during the Project to ground on the foreshore or river/seabed or otherwise disturb the foreshore or river/seabed (including disturbance as a result of vessel propeller wash), excepting only such disturbance as is reasonably required resulting from the use of barge spuds.
33.	The Permit Holder shall immediately cease work and notify VFPA if the Permit Holder has reasonable grounds to believe that the Project has harmed fish or fish habitat, including observation of distressed, injured, or dead fish. The Permit Holder shall not resume work until allowed by VFPA.
34.	Without limiting the generality of permit condition #2, the Permit Holder shall not, directly or indirectly: (a) deposit or permit the deposit of a deleterious substance of any type in water frequented by fish in a manner contrary to Section 36(3) of the Fisheries Act; or (b) adversely affect fish or fish habitat in a manner contrary to Section 35(1) of the Fisheries Act.
35.	The Permit Holder shall not operate machinery or equipment on the intertidal foreshore. All equipment working on or near the top of bank shall not disturb intertidal areas or the river/seabed.
36.	The Permit Holder shall not disturb the river/seabed outside the Project site.
37.	The Permit Holder shall repair and/or remediate any damage or erosion resulting from disturbance to the intertidal foreshore during the Project.
38.	Rip rap shall be clean and free of fines and shall be lowered through the water column and deposited near the river/seabed and not dumped or deposited from above or near the water surface.
39.	No dredging shall be conducted as part of the Project. Any proposals to dredge shall be the subject of a separate application to VFPA.
40.	The Permit Holder shall use an environmentally clean excavator bucket. The bucket and any portion of the excavator arm that will be in contact with or near the water shall be cleaned of any residual hydrocarbons or other contaminants prior to the start of works.
41.	The Permit Holder shall maintain equipment in good mechanical condition and free of fluid leaks, invasive species, and noxious weeds.
42.	The Permit Holder shall manage invasive plants in a manner that prevents their spread. Invasive plants and potentially affected materials, such as soil, shall be appropriately contained, collected and disposed of.
43.	The Permit Holder shall use reasonable efforts to retain existing native riparian vegetation and native soil. Disturbance or clearing of vegetation shall be staged and strictly limited to that required for the Project.
44.	The Permit Holder shall dispose of any soils excavated from the project site that are not suitable for backfill at appropriate off-site facilities and maintain records of off-site disposal.
45.	During upland construction activities, the Permit Holder shall not conduct refuelling or maintenance activities on nonroad equipment within 30 metres of any waterbody, or in an area where run-off may potentially reach surface waterbodies. Fuel and other hydrocarbon inventories shall not be stored in such areas, temporarily or otherwise.

46.	The Permit Holder shall conduct all activities involving the use of concrete, cement, mortars and other Portland cement or lime-containing construction materials in a manner that shall not deposit sediments, debris, concrete (cured or uncured), and concrete fines into the aquatic environment, either directly or indirectly. Water that has contacted uncured or partly cured concrete or Portland cement or lime-containing construction materials (such as the water that may be used for exposed aggregate wash-off, wet curing, equipment and truck washing) shall not be permitted to enter the aquatic environment. The Permit Holder shall provide containment facilities at the site for the wash-down water from concrete delivery trucks, concrete pumping equipment, and other tools and equipment, as required.
47.	Without limiting the generality of permit condition #2, materials brought onto the project site to be used for backfilling, site preparation, or other uses shall be from sources demonstrated to be clean and free of environmental contamination, invasive species and noxious weeds. The Permit Holder shall maintain records to verify this.
48.	The Permit Holder shall contain and collect debris and waste material in the immediate working area within the Project site. The Permit Holder shall dispose of waste material at suitable upland locations and maintain records of off-site disposal.
49.	Air emissions from vehicle/equipment exhaust, dust and vapours shall be minimized and managed to avoid effects on and off the Project site. More detailed guidance is available in Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities prepared for Environment Canada (Cheminfo Services Inc. March 2005).
50.	All non-road diesel equipment in use within VFPA jurisdiction shall be reported as required under the Non-Road Diesel Equipment Program (http://www.portvancouver.com/environment/air-energy-climate-action/cargo-handling-equipment/nrde/).
51.	The Permit Holder shall carry out all activities in a manner that prevents the release of sediment, sediment-laden waters, and turbid waters to the aquatic environment. Sediment and erosion control measures shall be implemented prior to the start of ground disturbance activities and should meet or surpass the standards outlined in the 1992 Fisheries and Oceans Canada (DFO) "Land Development Guidelines for the Protection of Aquatic Habitat".
52.	The Permit Holder shall not dewater excavations unless a dewatering plan has been reviewed and accepted by VFPA.
53.	Without limiting the generality of permit condition #2, if suspect contaminated materials are encountered, the Permit Holder shall contain, test and dispose of such materials at appropriate licensed off-site facilities and maintain records of off-site disposal. VFPA shall be notified of such activities and provided relevant documentation upon completion.
54.	<p>During any vessel-related activities, the Permit Holder shall:</p> <ul style="list-style-type: none"> a) Position vessels and equipment associated with the Project in such a manner so as not to obstruct line of sight to navigational aids or markers; b) Exhibit the appropriate lights and day shapes at all times; c) Monitor the VHF channel used for MCTS communications in the respective area at all times and participate as necessary; d) Be familiar with vessel movements in areas affected by the Project. e) Plan and execute the Project in a manner that will not impede navigation or interfere with vessel operations; and, f) During night hours, unless working 24 hours per day, ensure that the rig and associated equipment is moored outside the navigation channel and lit in accordance with all applicable regulations.

	CONDITIONS – UPON COMPLETION	SUBMISSION TIMING (Business Days)
55.	The Permit Holder shall notify the port authority upon completion of the Project.	Upon substantial completion
56.	The Permit Holder shall provide an environmental monitoring report for the whole monitoring period shall be submitted to VFPA's satisfaction within six weeks of the conclusion of the monitoring period.	Within six weeks of the conclusion of the monitoring period
57.	The Permit Holder shall provide record drawings in accordance with the port authority's Record Drawing Standards (available at: http://www.portvancouver.com/development-and-permits/project-and-environmental-reviews/technical-guidelines/), in both AutoCAD and Adobe (PDF) format to the port authority, including a Project site plan that clearly identifies the location of works.	Within 40 business days of completion
58.	The Permit Holder shall confirm that the Project was constructed within the approved area by providing to the port authority digital photographs of the Project site both before and after construction of the Project.	Within 40 business days of completion
59.	The Permit Holder must send record drawings of all newly constructed and/or demolished marine works to the Database Information Office of the Canadian Hydrographic Service (250-363-6360 or chsdatacentre@dfo-mpo.gc.ca) to arrange for the relevant Canadian Hydrographic Service charts to be updated. VFPA's Marine Operations department must be carbon copied into the request (navigation.review@portvancouver.com).	Within 30 business days of project completion
The port authority reserves the right to rescind or revise these conditions at any time that new information warranting this action is made available to the port authority.		
LENGTH OF PERMIT VALIDITY		
The Project must be completed no later than January 31, 2021		
AMENDMENTS		
<ul style="list-style-type: none"> • Details of any material proposed changes to the Project, including days and hours when construction and any physical activities will be conducted, must be submitted to the port authority for consideration of an amendment to this Permit. • For an extension to the Expiry Date, the Permit Holder must apply in writing to the port authority no later than 30 days prior to that date. <p>Failure to apply for an extension as required may, at the sole discretion of the port authority, result in termination of this Permit.</p>		

CONTACT INFORMATION

Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver BC V6C 3T4 Canada

Project & Environmental Review
Tel.: 604-665-9047
Fax: 1-866-284-4271
Email: PER@portvancouver.com
Website: www.portvancouver.com

After normal business hours:

In the event of any land or marine construction incidents or concerns related to works carried out on-site under this permit, please contact the 24/7 Port Operations Centre 604-665-9086. In the event of an emergency requiring 'First Responders', please call 911 first.