

PER No.:	17-090
Tenant:	Metro Vancouver
Project:	Conveyance for North Shore Wastewater Treatment Plant
Project Location:	Approximately 150 m northeast of the northern tower of the Lions Gate Bridge, District of West Vancouver
VFPA SID No.:	WVD-035
Land Use Designation:	Industrial
Applicant(s):	Paul Dufault, Project Manager. Metro Vancouver
Applicant Address:	4330 Kingsway, Burnaby, BC V5H 4G8
Category of Review:	C
Date of Approval:	April 20, 2018
Date of Expiry:	April 30, 2020

PROJECT DESCRIPTION

For the purposes of this project permit, (the Permit), the project is understood to include the following works on Vancouver Fraser Port Authority (VFPA) property:

Bridge Road Pump Station

- Construction of an enclosed pump station building measuring approximately 13 m (42.7 ft.) high x 22.5 m (73.8 ft.) wide x 30 m (98.4 ft.) long, for a footprint of 675 m² (7,265 ft²);
- Excavation of approximately 5,100 m³ (6,670 yard³) of soil in an area of 27 m (89 ft) x 18 m (59 ft) to an approximate depth of 11 m (36 ft.);
- Installation of utility connections (electrical and potable water), and mechanical and electrical systems, including pumps, odour control unit, standby generator, and HVAC;
- Construction of roadway to, and around, site for fire truck access and paved parking for operations and maintenance staff;
- Installation of hardscaping, and low maintenance landscaping that incorporates plantings and grassed areas;
- Installation of associated exterior and interior lighting systems; exterior lighting comprised of wall mounted and stand-alone LED's; and
- Installation of a chain-link/rigid wire security fence measuring approximately 2.4 m (7.8 ft.) high, with locked access gate.

Sewerage Conveyance Pipes

- Construction of approximately 75 m (246 ft.) of 1200 mm diameter Hollyburn Interceptor extension pipe (influent), from the VFPA northern jurisdictional boundary south to the new pump station. The interceptor extension pipe conveys sanitary wastewater from the District of West Vancouver;
- Construction of approximately 30 m (98.4 ft.) of 900 mm diameter sanitary forcemain (influent) from the new Bridge Road Pump Station north to the VFPA jurisdictional boundary. The force main continues east and connects with the new NSWWTP;
- Construction of approximately 170 m (557.7 ft.) of 2100 mm diameter effluent line from the northern VFPA jurisdictional boundary south, and then west, to a tie-in at the existing outfall. Effluent line originates at the new NSWWTP. Total surface disturbance footprint for all three lines is approximately 2,950 m² (31,753 ft²); and

- Excavation (for the Interceptor, forcemain, and effluent line) to an approximate depth of 8 m (26.2 ft.).

Marine Outfall Chamber

- Construction of an addition to the existing concrete outfall chamber measuring approximately 4.3 m (14.1 ft.) high x 5.1 m (16.7 ft.) wide x 5 m (16 ft.) long, that will result in a surface disturbance footprint of approximately 170 m² (1,830 ft²), that connects effluent pipe from the new NSWWTP to the existing outfall;
- Excavation (for the chamber) to an approximate depth of 5.5 m (18 ft.);
- Installation of utility connections (electrical and water), and mechanical and electrical systems;
- 2100 mm effluent pipe from the new NSWWTP;
- 1200 mm gravity overflow/pumped bypass connection from the new pump station;
- Existing 1400 mm outfall pipe;
- Provision for a future outfall connection;
- Weir wall to prevent air from accumulating in the 2100 mm effluent pipe;
- A barrier to keep water from entering the work site during high tide or storm surges; and
- An air relief chamber.

PROJECT AND ENVIRONMENTAL CONDITIONS

The Vancouver Fraser Port Authority (VFPA) 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 67 of the Canadian Environmental Assessment Act, 2012.

If at any time the Applicant fails to comply with any of the project and environmental conditions set out in the Permit below, or if VFPA determines that the Applicant has provided any incomplete, incorrect or misleading information in relation to the Project, VFPA 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, VFPA 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 VFPA at any time in relation to the potential adverse environmental and other effects of the Project.

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

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 VFPA'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 VFPA 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 VFPA 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 VFPA, 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, including the attached plans and drawings numbered PER No. 17-090-A to K . The Permit Holder shall not carry out any other physical activities unless expressly authorized by VFPA.
7.	The Permit Holder shall strictly comply with all enforcement actions issued by VFPA in response to the Permit Holder's failure to comply with this Permit.
8.	The Permit Holder must employ appropriate qualified professionals for monitoring activities, studies, reports, and any other relevant documentation or on site activities that necessitate a qualified professional.
9.	The Permit Holder shall cooperate fully with VFPA in respect of any review by VFPA of the Permit Holder's compliance with this Permit, including providing information and documentation in a timely manner, as required by VFPA. The Permit Holder is solely responsible for demonstrating the Permit Holder's compliance with this Permit.
10.	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.
11.	The Permit Holder shall make available upon request by any regulatory authority (such as a Fishery Officer) a copy of this Permit.

12.	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. 17-090 .	
13.	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 VFPA's satisfaction.	
14.	The Permit Holder shall complete and submit a self-report to VFPA demonstrating compliance with permit conditions at each of the following project phases: <ol style="list-style-type: none"> a) Prior to construction (self-report shall be submitted a minimum of 15 business days prior to the commencement of construction, or any physical activities, to a maximum of 90 business days prior to construction, or any physical activities); b) During Construction (self-report shall be submitted at least every 6 months); c) Upon Project Completion (self-report shall be submitted within 60 business days of completion of construction). 	
15.	VFPA shall be entitled to visit and inspect the Project Site at any time and without notice. The Permit Holder shall provide such access to VFPA, and cooperate with VFPA during the course of the visit or inspection.	
16.	All conditions in this Permit which expressly or by their nature survive expiration or termination of this Permit will remain in effect after the expiration or termination of this Permit.	
	CONDITIONS - PRIOR TO COMMENCING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES	
	SUBMISSION TIMING (business days)	
17.	The Permit Holder shall provide a Project schedule to VFPA, including: <ul style="list-style-type: none"> • The anticipated start dates for all major phases of the Project; • Specific references to construction which is expected to exceed standard construction hours (set out in Condition No. 52) including dates, times, and activities contemplated; • Anticipated timing for submission of Issued For Construction drawings; and • Anticipated date of substantial and final completion of construction. The Permit holder shall notify VFPA of any material changes to the Project schedule and shall provide an updated Project schedule should the contents materially change, or upon request.	20 days prior to commencing construction
18.	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.	10 days before commencing construction or any physical activities
19.	The Permit Holder shall provide the Ministry of Transportation and Infrastructure an opportunity to review the detailed design of the Bridge Road Pump Station.	30 days prior to commencing construction on this component

20.	The Permit Holder shall submit a draft construction communications plan in accordance with VFPA's Public Consultation Guidelines, available at: www.portvancouver.com/development-and-permits/project-and-environmental-reviews/technical-guidelines/ and to VFPA's satisfaction. The plan shall outline how the Permit Holder will engage and communicate with the public and stakeholders from the date of permit issuance to the completion of construction. The plan shall be updated as necessary and upon request by VFPA to ensure public and stakeholders are provided with relevant information as it becomes available. The Permit Holder shall carry out the Project in accordance with the construction communications plan, and any subsequent amendments approved by VFPA.	20 business days before commencing construction or any physical activities
21.	The Permit Holder shall provide a draft construction notice to VFPA's satisfaction in accordance with VFPA's Public Consultation Guidelines, available at: www.portvancouver.com/development-and-permits/project-and-environmental-reviews/technical-guidelines/	20 business days before commencing construction or any physical activities
22.	The Permit Holder shall distribute an approved construction notice to residents and businesses to an area to VFPA's satisfaction. The Permit Holder shall notify VFPA when such distribution has been completed.	10 business days before commencing construction or any physical activities
23.	For structures and proposed interior changes that are reviewable under the National Building Code and National Fire Code, the Applicant shall apply for a VFPA Building Permit.	40 days before commencing construction or any physical activities
24.	The Permit Holder shall submit a final construction environmental management plan to VFPA's satisfaction. The Permit Holder shall carry out the Project in accordance with the construction environmental management plan, and any subsequent amendments approved by VFPA.	20 days before commencing construction or any physical activities
25.	The Permit Holder shall submit a final soil management plan to VFPA's satisfaction. The Permit Holder shall carry out the Project in accordance with the soil management plan, and any subsequent amendments approved by VFPA.	20 days before commencing excavations
26.	The Permit Holder shall submit a final dewatering plan to VFPA's satisfaction. The dewatering plan shall include details on the discharge method and location, and mitigation measures to reduce potential for erosion of the seabed at the discharge point.	20 days before commencing dewatering
27.	The Permit Holder shall submit an updated stormwater pollution prevention plan, written in accordance with the VFPA Developing Your Stormwater Pollution Prevention Plan Guideline available at: www.portvancouver.com/wp-content/uploads/2015/05/PER-Stormwater-Pollution-Prevention-Plan-Guidelines-Final-2015-07-09.pdf), and to VFPA's satisfaction. The Permit Holder shall carry out the Project in accordance with the updated stormwater pollution prevention plan, including any subsequent amendments approved by VFPA.	20 days before commencing construction of stormwater utilities

28.	If there is potential to affect birds and/or their active nests and eggs, the Permit Holder shall conduct nest surveys. For any nests identified in surveys, a qualified environmental professional shall confirm that the nest is not occupied by a species protected at that time of year under applicable legislation. To reduce the risk of Project-related harm, the Permit Holder should avoid certain physical activities during the general bird breeding season, which falls between April 1 and July 31, or outside of this time span if occupied nests are present.	Prior to ground disturbance or vegetation removal
29.	The Permit Holder shall submit final design drawings for VFPA review and approval for any in water installations, including any temporary discharge conveyance pipes.	10 days before commencing construction
CONDITIONS - DURING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES		
30.	The Permit Holder shall notify VFPA upon commencement of construction, or any physical activities (e.g., mobilization to the Project site).	
31.	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, the construction environmental management plan, 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.	
32.	The Permit Holder shall provide environmental monitoring reports to VFPA's satisfaction as specified in the construction environmental management plan or more frequently if VFPA requires. In addition, a summary report for the whole monitoring period shall be forwarded to VFPA within six weeks of the conclusion of the monitoring period.	
33.	The Permit Holder shall not operate machinery or equipment on the intertidal foreshore outside the work area. All equipment working on or near the top of bank shall not disturb intertidal areas or seabed outside the work area.	
34.	The Permit Holder shall not disturb the seabed outside the Project site.	
35.	The Permit Holder shall repair and/or remediate any damage or erosion resulting from disturbance to the intertidal foreshore during the Project.	
36.	The Permit Holder shall carry out all works in the intertidal area in the dry, i.e., above the water surface.	
37.	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.	
38.	The Permit Holder shall contain any drilling fluids or mud used during the Project within drill casings. Drill cuttings and drilling fluids/mud shall not be discharged to the aquatic environment.	
39.	Trees shall be felled by a qualified professional.	
40.	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.	

41.	No vegetation shall be removed in the habitat compensation site (riparian habitat) located immediately east of the proposed conveyance pipe location.
42.	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.
43.	Without limiting the generality of permit condition No. 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.
44.	Without limiting the generality of permit condition No. 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.
45.	Without limiting the generality of permit condition No. 2, the Permit Holder shall decommission any groundwater monitoring wells encountered within the Project footprint in compliance with the requirements set out in Appendix C of VFPA's Construction Environmental Management Plan Guideline, available online at: http://www.portvancouver.com/development-and-permits/project-and-environmental-reviews/technical-guidelines/ .
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 No. 2, storage tank removal, installation and operation shall meet the requirements of the Petroleum Products and Allied Petroleum Products Storage Tank Systems Regulations and the CCME Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products.
48.	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/).
49.	Without limiting the generality of permit condition No. 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.
50.	The Permit Holder shall provide a vegetation mitigation plan to VFPA's satisfaction. The vegetation mitigation plan shall include the location of replanting, the species of plants to be protected, and a schedule for post-planting assessments.

51.	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 VFPA. 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.	
52.	The Permit Holder shall notify VFPA of any complaints received from the community and stakeholders during construction and indicate how the Permit Holder has responded to such complaints.	
53.	The Permit Holder shall remove all abandoned utilities from the site, both underground and aboveground. At locations of connections to municipal work (i.e. at property lines), the abandoned utility providers shall be notified. Provide location of utility terminations in record drawings.	
54.	If the Permit Holder encounters, expects to encounter, or should expect to encounter an actual or potential archaeological resource, the Permit Holder shall: <ul style="list-style-type: none"> a) Immediately stop any activities that may disturb the archaeological resource or the site in which it is contained (Site); b) Not move or otherwise disturb the archaeological resource or other remains present at the Site; c) Stake or flag the Site to prevent additional disturbances; and, d) Immediately notify VFPA by email and phone. 	
55.	The Permit Holder may place temporary construction trailers on the Project site while this Permit remains in effect, provided that the Permit Holder does not connect such trailers to any underground utilities without the prior written consent of VFPA which may require, at VFPA's discretion, a VFPA Building Permit.	
56.	The Permit Holder shall maintain a buoy or marker as shown on the attached plans at the entrance to the dewatering discharge pipe, as required, to the satisfaction of the Harbour Master.	
CONDITIONS – PRIOR TO OPERATION		
57.	The Permit Holder shall conduct noise measurements of the emergency generator during commissioning to ensure that excessive noise is mitigated, that noise mitigation features perform as designed, and that noise levels measured at 7 meters are within acceptable industrial noise performance standards (i.e. level II enclosures). The results shall be submitted to VFPA and VFPA may require additional mitigations.	
CONDITIONS - UPON COMPLETION		SUBMISSION TIMING (Business Days)
58.	The Permit Holder shall notify VFPA upon completion of the Project.	Upon substantial completion
59.	The Permit Holder shall provide record drawings in accordance with VFPA's Record Drawing Standards (available at: http://www.portvancouver.com/development-and-permits/project-and-	Within 40 business days of completion

<p>environmental-reviews/technical-guidelines/), in both AutoCAD and Adobe (PDF) format to VFPA, including a Project site plan that clearly identifies the location of works.</p>	
<p>VFPA reserves the right to rescind or revise these conditions at any time that new information warranting this action is made available to VFPA.</p>	
<p>LENGTH OF PERMIT VALIDITY</p>	
<p>The Project must commence by April 30, 2019 (the Commencement Date) and be completed no later than April 30, 2021 (the Expiry Date).</p>	
<p>AMENDMENTS</p>	
<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 VFPA for consideration of an amendment to this Permit. • For an extension to the Commencement Date, the Permit Holder must apply to VFPA in writing no later than 30 days prior to that date. • For an extension to the Expiry Date, the Permit Holder must apply in writing to VFPA no later than 30 days prior to that date. <p>Failure to apply for an extension as required may, at the sole discretion of VFPA, result in termination of this Permit.</p>	

PROJECT AND ENVIRONMENTAL REVIEW DECISION

Project Permit PER No. 17-090 is approved by:

Original Copy Signed

GREG YEOMANS
DIRECTOR, PLANNING & DEVELOPMENT

April 20, 2018

DATE OF APPROVAL

CONTACT INFORMATION

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