



PORT of  
**vancouver**

# **PROJECT AND ENVIRONMENTAL REVIEW REPORT**

**PER NO. 16-290**

**WCMRC OIL SPILL EMERGENCY RESPONSE BASE**

Prepared for: Director, Planning & Development

May 15, 2017

## Table of Contents

Table of Contents .....	2
1 INTRODUCTION .....	3
2 PROJECT DESCRIPTION .....	4
2.1 Proposed Works .....	5
3 VANCOUVER FRASER PORT AUTHORITY INTERNAL REVIEWS .....	6
3.1 Planning .....	6
3.1.1 Land Use Designation .....	6
3.1.2 Existing Land Use Policies .....	6
3.1.3 Building Permit Requirements .....	7
3.2 Engineering .....	7
3.3 Transportation .....	7
3.4 Marine Operations .....	8
3.5 Environmental Programs .....	9
4 STAKEHOLDER & PUBLIC CONSULTATION .....	9
4.1 Municipal Consultation .....	9
4.2 Adjacent Tenant Consultation .....	9
4.3 Marine Users Consultation .....	9
4.4 East Vancouver Port Lands (EVPL) Liaison Group .....	9
4.5 Public Consultation .....	10
4.6 Additional Stakeholder Outreach .....	13
5 ABORIGINAL CONSULTATION .....	13
5.1 Phasing .....	13
5.2 Comments and Considerations .....	14
6 ENVIRONMENTAL REVIEW .....	18
6.1 Scope of Environmental Review .....	18
6.2 Environmental Effects Summary .....	20
6.3 Environmental Review Decision .....	25
7 RECOMMENDATION .....	25
APPENDIX A Figures and Drawings .....	26
APPENDIX B List of Information Sources .....	26

		<b>VANCOUVER FRASER PORT AUTHORITY PROJECT AND ENVIRONMENTAL REVIEW REPORT</b>
<b>PER No.:</b>	<b>16-290</b>	
<b>Tenant:</b>	<b>Western Canada Marine Response Corporation</b>	
<b>Project:</b>	<b>WCMRC Oil Spill Emergency Response Base</b>	
<b>Project Location</b>	<b>2800 Commissioner Street, Vancouver</b>	
<b>VFPA SID No.:</b>	<b>VAN047-10434F-001</b>	
<b>Land Use Designation:</b>	<b>Port Terminal</b>	
<b>Applicant(s):</b>	<b>Lesley Green, Director Corporate Projects, Western Canada Marine Response Corporation</b>	
<b>Applicant Address:</b>	<b>PO Box 82070, Burnaby BC V5C 5P2</b>	
<b>Category of Review:</b>	<b>C</b>	
<b>Recommendation:</b>	<b>That PER No. 16-290 for the WCMRC Oil Spill Emergency Response Base be approved.</b>	

## 1 INTRODUCTION

The Vancouver Fraser Port Authority (VFPA), a federal port authority, manages lands under the purview of the *Canada Marine Act*, which imparts responsibilities for environmental protection. VFPA 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 report documents VFPA's project and environmental review of PER No. 16-290: WCMRC Oil Spill Emergency Response Base (the Project) proposed by Lesley Green working on behalf of Western Canada Marine Response Corporation (WCMRC) (the Applicant).

This project and environmental review was carried out to address VFPA's responsibilities under the *Canada Marine Act*, and to meet the requirements of the *Canadian Environmental Assessment Act*, 2012 (CEAA 2012), as applicable. The proposed Project is not a CEAA 2012 "designated project" and an environmental assessment as described in CEAA 2012 is not required. However, VFPA authorization is required for the proposed Project to proceed and in such circumstances, where applicable, Section 67 of CEAA 2012 requires federal authorities to assure themselves that projects will not likely cause significant adverse environmental effects. This review provides that assurance. In addition, VFPA 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 VFPA and other consultations carried out by VFPA. A full list of information sources germane to the review is provided in Appendix B.

This project and environmental review report is NOT a project authorization. It is a prerequisite to the issuance of a project permit (the Permit) and the conclusions described in this report require compliance with the conditions in the Permit.

## 2 PROJECT DESCRIPTION

WCMRC proposes to construct an oil spill emergency response base at the subject property. The works are comprised of marine piles and floats, riparian shore protection, two upland buildings and site services, and a paved parking area. The base is anticipated to support three barges (two large), five support vessels, and a fire boat. It will also provide a new waterfront operating location for their activities in the harbour which include spill response, training, and mapping.

WCMRC is the company that is certified by Transport Canada to respond to marine oil spills along British Columbia's coastline. Their mandate is to ensure that a state of preparedness is in place to mitigate the impacts of an oil spill and manage the clean-up. They are supported by membership fees and shipper fees. The company's head office is located in Burnaby, with satellite offices in Duncan and Prince Rupert, and equipment caches located strategically along the west coast. The company operates spill response vessels of various types, several of which are currently stationed in Burrard Inlet.

This proposed base is intended to enhance the existing spill response capabilities to allow WCMRC to handle additional marine traffic expected as a result of the Trans Mountain Pipeline Expansion Project. It would also consolidate several existing company assets distributed around the inlet into one location to facilitate the activities of the company. The Applicant chose this location as it is one of few available waterfront properties in central Burrard Inlet with both usable land and access to deep water for vessel moorage.

The site is located at 2800 Commissioner Street, immediately west of the Commissioner Street Vehicle Access Control System gates. The location is bordered by Columbia Containers to the west, and a VFPA operated truck staging parking lot to the east. The site is limited in land area, and the leaseable portion is approximately 4 metres (13 ft.) lower than the adjacent roadway, separated by a retaining wall. The location was formerly home to the Prince Rupert Fisherman's Cooperative, which vacated the facilities in approximately 1994, and the site has remained vacant since that time. VFPA demolished the abandoned building located on piles in 2013, but retained the concrete pier.

The proposed lease area includes both land and water areas, and covers 3,759m<sup>2</sup> (40,460 ft<sup>2</sup>) of land, and 12,669 m<sup>2</sup> (136,368 ft<sup>2</sup>) water, measured from the high tide line. The site is accessed from the south west corner, using a shared driveway with adjacent tenant Columbia Containers.

WCMRC proposes to furnish the site with two buildings, a parking area, and a new ramp and float for the moorage of their fleet. Buildings are proposed to be modular in nature, and located at the east end. One is for office space, while the other is proposed to function as a lunch room. The plans for the site make use of some existing services/utilities, including an existing storm water outfall. The majority of existing features and utilities are proposed to be removed and replaced with new.

WCMRC propose to lease the site and operate the base on it without removing the existing pile-supported pier. The existing pier is in acceptable condition, but is not expected to meet current seismic standards and thus cannot be occupied by buildings without significant upgrades. It is proposed to receive minor repairs, but not a significant upgrade. Consequently, the structure is proposed to be used only as an access corridor between the upland area and the proposed floats located to the north. It may also be used for open storage of materials, but will not be used to store shipping containers.

Staffing is expected to average 7 to 10 people, with an expectation that there would be more activity in the event of a spill response or training event. Marine traffic would consist of two to three vessel departures/arrivals per week, typically for training events. The base is proposed to be

operated on a 24/7, 365 days per year basis, with minimal staffing during night shifts hours. Vessels would be fueled offsite.

The marine facilities proposed would facilitate permanent moorage of two large barges, and several smaller response boats. In addition, Vancouver Fire Rescue has confirmed their intent to house a vessel at this location on a permanent basis. Pump-out services are proposed on the float, with a discharge to a proposed upland lift station which also services the buildings. Lighting is proposed both on the float and on the pier.

Landscaping of two beds at the top of the rip-rap slope is proposed, as well as an area adjacent to the roadway near the entrance driveway. No additional fencing is proposed beyond minor repairs to what is existing.

## 2.1 Proposed Works

### In-water / Pier

- Maintenance of existing concrete pier measuring 30.7 m (100 ft.) x 64.7 m (212 ft.), with an area of 1,980 m<sup>2</sup>:
  - Asphalt re-surfacing,
  - Repair of concrete abutment beam,
  - Removal of concrete wall on west edge,
  - Installation of timber bull rails and safety ladders around the perimeter,
  - Painting of white corporate logo on the surface;
- Installation of one 24m (78.7 ft.) x 2.4m (7.9ft.) aluminum gangway and piled steel support platform;
- Installation of 14 steel pipe piles that are 610mm (24 in.) to 914mm (36 in.) diameters;
- Installation of a concrete landing float and a 100m (328 ft.) x 3m (9.8 ft.) wide concrete float;
- Installation of sewage pump-out on float;
- Installation of 724 m<sup>2</sup> (7,800 ft<sup>2</sup>) of rock habitat for bull kelp; and
- Lighting located at float and pier ground level.

### Riparian / Foreshore

- Placement of a concrete lock block retaining wall, along the south edge of the existing pier, to stabilize and retain fill under the upland parking area;
- A ramp access from land up to the existing pier;
- Placement of 62 linear metres (203 ft.) totaling 778 m<sup>3</sup> of riprap shore protection along the foreshore. Rip rap to extend 0.8 m above high water level, have a 2:1 slope, and extend seaward 12 m from the top of bank; and,
- Installation of landscaped beds containing native plants.

### Upland

- Removal of existing catch basin and placement of new pavement and storm water drainage (catch basin, storm lines, oil/water interceptor) for the upland area;
- Installation of an in-ground sewage lift station;
- Installation of water supply to floats and office buildings;
- Installation of electrical utilities for the floats and office buildings;
- Installation of two single-storey modular buildings, each measuring 4.3m (14 ft.) wide x 18.3m (60 ft.) long);
- Installation of shielded lighting (downward facing);

- Installation of landscaped beds containing native plants; and
- Line painting of 20 parking stalls.

Maximum excavation depth is approximately 2.3m below existing grade, along the southern edge of the existing pier.

A building permit is required for this project for the proposed modular buildings.

## **2.2 Construction**

Construction is anticipated to commence in Q2 2017 and duration is anticipated to require 10 to 12 months. Anticipated construction equipment includes barge and barge-mounted pile rig, backhoes, a small crane, front end loaders, dump trucks, and miscellaneous small equipment including a jack hammer. The facility is required to be fully operational by Q1 2019.

## **3 VANCOUVER FRASER PORT AUTHORITY INTERNAL REVIEWS**

The following VFPA departments have reviewed the application and have the following project considerations.

### **3.1 Planning**

Planning has reviewed the application and has the following land use comments in Section 3.1. Planning supports the recommendation to approve the Project subject to adherence to the listed project and environmental conditions in the Permit.

#### **3.1.1 Land Use Designation**

The proposed Oil Spill Emergency Response Base conforms to the designation of "Port Terminal" in Vancouver Fraser Port Authority's Land Use Plan. The proposed use is considered to be a marine support service, which is a Primary Use under that designation.

#### **3.1.2 Existing Land Use Policies**

The proposed Project is within the East Vancouver Port Lands (EVPL) Area Plan and is categorized as a "Green (outright) use" development.

Consultation with the EVPL Liaison Committee was conducted, which exceeds the requirements of the plan for a green use. These activities are described in detail in Section 4 – External Referrals.

The following policies contained in the EVPL Area Plan were considered as part of the review of this Project. A table below describes how the Project conforms with these policies.

EVPL Area Plan - Policy	VFPA Considerations
<ul style="list-style-type: none"> <li>H6 – All new structures, including those that meet the height guideline limit, will be sited to minimize view impacts.</li> </ul>	<ul style="list-style-type: none"> <li>The proposed development is located in Area 5, which has a maximum height guideline of 10.7 m (35 ft.). The tallest point on the buildings will be approximately 4.1m (13ft 6in), and is therefore well within the Area 5 height guideline.</li> <li>The two buildings are proposed to be situated immediately north of an existing retaining wall which runs along Commissioner Street.</li> </ul>
<ul style="list-style-type: none"> <li>H9 – The design aesthetics of new structures will be optimized through high quality industrial materials, colour, and detailing, landscaping and general design to reduce the obtrusiveness and minimize the visual impact of the structure.</li> </ul>	<ul style="list-style-type: none"> <li>The two proposed buildings will be clad in an aesthetic treatment which are described as “West Coast”.</li> <li>The buildings will largely not be visible from the south, due to the topography of the site.</li> </ul>
<ul style="list-style-type: none"> <li>L2 – ensure that the lighting level is the minimum required to ensure safety and security and that it points north or is shielded as much as possible to reduce impacts on residential properties located to the south.</li> </ul>	<ul style="list-style-type: none"> <li>The proposed lighting is described as low wattage (50 lumens) LED lighting that is shielded.</li> </ul>

VFPA has adopted the EVPL Landscape Design Guidelines, which set out expectations for site landscaping in the area in accordance with the Plan. It includes two landscaped beds, at the east and west corners of the site, immediately adjacent the foreshore. These beds are proposed to be planted with a variety of native plantings, and are intended to satisfy the EVPL Area Plan Landscaping Guidelines.

The Project is considered to be in conformance with the EVPL Area Plan.

### 3.1.3 Building Permit Requirements

The two proposed buildings require review under the National Building Code and National Fire Code of Canada. A VFPA code consultant has been selected and this review is now underway. The Applicant is required to obtain a VFPA building permit before proceeding with construction of those works and cannot occupy those structures until they have obtained a VFPA occupancy permit.

### 3.2 Engineering

The proposed Project intends to extend servicing to the site, and stabilize the foreshore by installing a lock block retaining wall and rip rap shoreline protection. The Applicant also proposes to utilize and maintain an existing concrete pier for access between the upland area and the proposed floats. Engineering supports the recommendation to approve the Project subject to adherence to the listed project and environmental conditions in the Permit.

### 3.3 Transportation

The proposed Project intends to utilize the site as a base for 7 to 10 staff members, with more expected on an infrequent basis. Occasional equipment deliveries are also expected.

Transportation has reviewed the application and requires the Applicant to submit a construction traffic parking and traffic management plan. This is condition 16 in the Permit.

Transportation supports the recommendation to approve the Project subject to adherence to the listed project and environmental conditions in the Permit.

### 3.4 Marine Operations

The proposed response base is located within the Second Narrows Movement Restriction Area (MRA-2), an area established by the port authority to facilitate safe navigation of deep-sea and other commercial vessels. The purpose of the response base and associated on-water activities is conducive to the overall purpose of the MRA-2.

Marine Operations reviewed the proposed works and the associated construction activities. Specific attention was given to the existence of a navigation aid (Second Narrows west directional) located 68 metres (223 ft.) west of the proposed marine facilities. The Applicant was required to assess the potential impacts on this navigation aid during construction. The results of this review were that construction effects were determined to be negligible.

Marine Operations has reviewed the application and requires the Applicant to ensure the following:

- Prior to the commencement of any vessel-related activities, the Permit Holder must contact the appropriate Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS) centre regarding the issuance of a Notice to Shipping (NOTSHIP) to advise the marine community of potential hazards associated with the Project.
- The Permit Holder must submit a Marine Construction and Staging Plan, 30 days prior to commencing construction activities, which illustrates and includes:
  - On-water staging and construction areas;
  - Dates and hours of operations;
  - Description of activities taking place;
  - Participating equipment and vessels (specifications and dimensions must be included);
  - Method of preferred communication; and
  - Special requests and/or additional information.
- During any vessel-related activities, the Permit Holder must:
  - 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.
  - As per the International Regulations for Preventing Collisions at Sea, exhibit the appropriate lights and day shapes at all times.
  - Monitor the VHF channel used for MCTS communications in the respective area at all times and participate as necessary.
  - Be familiar with vessel movements in areas affected by the Project. The Applicant must plan and execute the Project in a manner that will not impede navigation or interfere with vessel operations.
  - During night hours, unless working 24 hrs per day, the rig and associated equipment must be moored outside the navigation channel and lit in accordance with all applicable regulations.
- 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 CHS charts to

be updated within 30 days of completion of works. VFPA's Marine Operations department must be carbon copied into the request (navigation.review@portvancouver.com).

These are reflected in conditions 19, 20, 39, and 44 of the Permit.

Marine Operations supports the recommendation to approve the Project subject to adherence to the listed project and environmental conditions in the Permit.

### **3.5 Environmental Programs**

The review of the proposed project by Environmental Programs is reflected in Section 6, Environmental Review.

## **4 STAKEHOLDER & PUBLIC CONSULTATION**

The proposed Project was assessed to have potential impacts to stakeholders and the local community and consultation activities were determined to be required. The following sections describe the stakeholder consultation activities undertaken by VFPA as part of the project and environmental review. Additional stakeholder consultation was undertaken by the Applicant, as described in Section 4.6.

VFPA has reviewed the record of consultation and related documents and is of the view that the Project has adequately addressed the concerns raised during stakeholder and public consultation.

### **4.1 Municipal Consultation**

The proposed Project was assessed by Planning to have potential impacts to municipal interests. A referral letter was sent to the City of Vancouver on December 22, 2016 notifying them of the proposed Project. VFPA did not receive any municipal comments as a result of the referral.

### **4.2 Adjacent Tenant Consultation**

The proposed Project was assessed by Planning to have potential impacts to adjacent VFPA tenant operations. A referral letter was sent to Columbia Containers on December 22, 2016 notifying them of the proposed Project. VFPA did not receive any tenant comments as a result of the referral.

### **4.3 Marine Users Consultation**

The proposed Project was assessed by Marine Operations to have potential impacts to marine users. As such, Marine Operations consulted the Pacific Pilotage Authority (PPA) and the British Columbia Coast Pilots (BCCP) on November 20, 2016. The PPA deferred comment to the BCCP to provide an assessment based on the provided proposed site drawings and reference materials. The BCCP observed that there appeared to be no conflicts with the aids to navigation located in close proximity to the site and as such observed no issue with the construction of the new facility.

### **4.4 East Vancouver Port Lands (EVPL) Liaison Group**

The proposed Project is within the area covered by the East Vancouver Port Lands (EVPL) Area Plan as described above in Section 3.1.2.

The project was deemed to be a Green use, which requires that the EVPL Liaison Group be notified upon receipt by VFPA of a complete application. The Liaison Group may also request to be notified when the project permit is issued.

Given that the project is a PER Category C and likely to be of interest to the members of the committee, the Applicant presented their project to the EVPL Liaison Group on the following dates:

Phase	Date
Preliminary Review Phase - solicited initial comments (required under the EVPL Plan)	August 23, 2016
Application Review Phase – followed up on concerns and provided project update (not required under the EVPL Area Plan; undertaken voluntarily by the Applicant)	April 11, 2017

The table below summarizes the questions and concerns of the EVPL committee, and how they were addressed:

Issue Raised	Response
August 23, 2016 – EVPL noted that light and noise continue to be a concern in their community. EVPL requested that WCMRC consider these issues when advancing their design.	WCMRC assured the community that light and noise would be minimized with operational requirements, which include 24/7 operations. WCMRC presented and described their light modeling work to date, which suggested minimal impact to the community.
April 11, 2017 (undertaken voluntarily by the Applicant) - Impact to views of Burrard Inlet due to equipment containers that are proposed to be stacked on barges (potentially two high) permanently moored at the facility.	WCMRC confirmed that the repurposed shipping containers (used for storage) located on the barges would be a maximum of 38 ft. in height above the water level, is within the recommended 35 ft. height restriction (relative to the land elevation) set out in the EVPL Plan. In addition, these containers represent a relatively small massing within a much larger viewscape.
April 11, 2017 (undertaken voluntarily by the Applicant) - Concern about the aesthetics of the completed project, including the absence of a green roof.	WCMRC reclarified that most of the building structure would not be in view, as it is blocked from the south by a tall retaining wall. WCMRC circulated some renderings of the completed facility from several view perspectives. Generally favourable responses were received from the committee. It was also noted by VFPA that this project was categorized as a “green” in the EVPL Area Plan and that this second meeting was voluntarily provided by WCMRC.

VFPA is satisfied that the issues raised at the two presentations to the EVPL committee were satisfactorily addressed.

#### 4.5 Public Consultation

The proposed Project was assessed by VFPA to have potential impacts to community interests in the surrounding area during construction and upon completion. These include potential impacts such as noise and lighting.

The Applicant was required to conduct public consultation activities with a 15 business day (19 day) public comment period and distribute a community notification letter. The objective of public

consultation as part of the permit review, is to solicit feedback from the public on the proposed project and proposed mitigations during construction and operation.

The Applicant carried out public consultation activities on the proposed project in accordance with VFPA Guidelines. VFPA reviewed the record of public consultation, including all comments received and the Applicant's response to comments, in determining mitigation requirements and in making a decision on the proposed Project.

A description of the Project and proposed works, and all supporting materials were posted to VFPA's website in December 2016 for public review and comment. Mention of the Applicant's requirement to distribute a community notice was posted on VFPA's website and links were provided to the Applicant's website for more information.

Public consultation and engagement activities were conducted by the Applicant from January 5 to February 3, 2017 and included the following:

- Mailing community notification letters to residents and businesses in Vancouver;
- Providing an email address for inquiries and submissions; and
- Posting a project webpage on the applicant's website.

The Applicant mailed community notification letters to all residents and businesses in the area as shown in the map below on January 5, 2017, with information about the proposed project and an 18 business day feedback period. The notification area included all residents and businesses within approximately four blocks (500 m) from the project site. The area of notification included approximately 400 residents and businesses in the area.

**Mail drop area for public notification**



During the public consultation period, no comments were received from the public.

The Applicant provided a summary of the public consultation conducted in a Public and Stakeholder Engagement Summary Report. VFPA has reviewed the document and found it to be acceptable. The report was posted on VFPA and the Applicant's websites on May 9, 2017. A separate Consideration Report was not required to be submitted as there was no public feedback received during the public consultation period.

## 4.6 Additional Stakeholder Outreach

In addition to VFPA's public consultation requirements, the Applicant also conducted additional outreach to 14 government and other stakeholders. These activities are outlined in the Engagement Summary Report and include sending notification letters to all 14 stakeholders as well as having in-person meetings with three government stakeholders.

Of the additional outreach conducted by the Applicant with government and other stakeholders, one letter was received in response acknowledging receipt of the notification letter. The Engagement Summary Report also mentions that of the government stakeholders whom the Applicant met with, all expressed appreciation for the opportunity to discuss the project as well as general overall support.

VFPA has reviewed the record of public consultation and is of the view that the Project has adequately addressed the concerns raised during public consultation.

## 5 ABORIGINAL CONSULTATION

VFPA Aboriginal Affairs reviewed the proposal and determined that the project may have the potential to adversely impact Aboriginal or Treaty rights. As such, Aboriginal consultation was undertaken by VFPA.

The following Aboriginal groups were consulted:

- Tsleil-Waututh Nation;
- Squamish Nation;
- Musqueam Indian Band;
- Sto:lo Nation and Sto:lo Tribal Council (via the People of the River Referrals Office - PRRO);
- Hul'qumi'num Treaty Group, consisting of;
  - Cowichan Tribes;
  - Halalt First Nation;
  - Stz'uminus First Nation;
  - Penelakut First Nation;
  - Lyackson First Nation; and,
  - Lake Cowichan First Nation.

### 5.1 Phasing

#### *Pre-Application Phase:*

In July 2016, prior to submitting a project permit application to VFPA, WCMRC carried out a series of community and stakeholder outreach sessions in Vancouver, the Lower Mainland and on Vancouver Island. Aboriginal groups were contacted separately, during this time, as part of these efforts. Outreach materials were filed with VFPA as part of their permit application.

WCMRC sent outreach letters to Aboriginal groups on July 11, 2016, outlining the proposed construction of a new response base in Burrard Inlet's inner harbour, located at 2800 Commissioner Street in the City of Vancouver. WCMRC's previous and ongoing engagement with various Aboriginal groups that exercise and/or assert rights in the Salish Sea had focussed on Canada's spill response regime, not the localized, physical impacts of any new, proposed response base.

*Application Review Phase:*

VFPA reviewed the proposed project, and determined that the works may have the potential to adversely impact Aboriginal rights. On November 23, 2016, a referral package was sent to each of the Aboriginal groups listed above. The referral package included:

- VFPA’s consultation letter;
- Appendix A – WCMRC’s permit application;
- Schedule 4 – Overview of Potential Project Effects; and,
- An overview map.

Electronic copies of the Application (including the aforementioned materials and the application appendices) were placed on Serv-U for each Aboriginal group. Comments were requested from Aboriginal groups within 30 business days, by January 6, 2017.

### 5.2 Comments and Considerations

Below is a table summarizing comments received by VFPA from Aboriginal groups and how they were considered as part of the Project and Environmental Review.

Comment/Concern	Mitigation/Accommodation (if required)	Future Action/Commitment
<p><b>Environmental Stewardship</b> An Aboriginal group requested that WCMRC’s facility be constructed according to principle of net environmental gain, contributing to the health / biodiversity of Burrard Inlet.</p>	<p>VFPA assesses projects in accordance with obligations under the <i>Canada Marine Act</i> and the <i>Canadian Environmental Assessment Act, 2012</i> ensuring projects do not cause any adverse effects on the environment.</p>	<p>While VFPA does not have a policy in place that directly addresses the principle of net environmental gain, VFPA and WCMRC have committed to meeting with the Aboriginal group to discuss possible in-kind contributions in support of this objective.</p> <p>Additionally, WCMRC has committed to creating an expansion area of 742 m<sup>2</sup>, placing rock above existing substrate, which will promote the growth of existing bull kelp beds. This commitment was communicated to the Aboriginal group during the review via letter and is reflected in Permit condition 40.</p>
<p><b>Construction (Materials)</b> Aboriginal groups asked WCMRC to clarify the material composition of lumber and piles for the project</p>	<p>WCMRC has verified the following:</p> <ul style="list-style-type: none"> <li>• No treated lumber on the floats will be located in water or used as timber support piles. Treated lumber has been minimized to the bull rails and rub strips on the concrete floats.</li> <li>• Only steel piles be used for in-water structures.</li> </ul>	<p>None required.</p>

Comment/Concern	Mitigation/Accommodation (if required)	Future Action/Commitment
<p><b>Replanting (Terrestrial)</b> Aboriginal groups inquired about vegetation restoration plans following proposed site clearing of vegetation</p>	<p>No mitigation required, but WCMRC has committed to the future action, noted in the next column.</p>	<p>WCMRC will be examining vegetation enhancement in the marine riparian zone using native drought-resistant shrub species that could occur naturally at this site.</p>
<p><b>Construction (Shoreline)</b> Aboriginal groups asked for clarifications on whether existing broken concrete, currently occupying the shorelines would be disposed of.</p>	<p>The existing layer of concrete, which will provide a base layer for new rip rap, has aged significantly and is not expected to have retained any materials that would leach into the water, therefore, no changes in pH of the water or other adverse effects on water quality are expected.</p>	<p>The project manager/engineer will use their discretion, ensuring in-place concrete is of a sufficient grade to prevent particle erosion of the slope structure.</p> <p>The Construction and Environmental Management Plan (section 6.3, page 14) indicates that “any debris, wastes, and impacted soil will be removed to appropriately licensed facilities.”</p> <p>VFPA permit includes a requirement that WCMRC dispose of debris and waste material at suitable upland locations and this is reflected in Permit condition 31.</p>
<p>Aboriginal groups indicated their preference for alternatives to shoreline work involving rip rap; Aboriginal groups indicated they did not consider rip rap to be a beneficial feature to the environment.</p>	<p>Rip rap is commonly used for shoreline stabilization used within VFPA jurisdiction and design alternatives that enable habitat development are worth further consideration.</p>	<p>VFPA committed to meeting with Aboriginal groups to examine the possibility of introducing habitat skirting at earlier planning stages with subsequent projects in Burrard Inlet.</p>
<p><b>Archaeology</b> Aboriginal groups requested that:</p> <ul style="list-style-type: none"> <li>• a comprehensive Archaeological Overview Assessment (AOA) be completed for the project area; and</li> <li>• VFPA obtain a cultural investigation permit prior to undertaking any archaeological work for the Project.</li> </ul>	<p>WCMRC’s preliminary site assessment was carried out by a consulting firm with a certified archaeologist, who secured cultural investigation permit and had an onsite monitor from a local Aboriginal group for their site investigations. VFPA supports conclusions for the consultant’s assessment indicating a low potential for encountering archaeological resources in an area which consists of historic fill.</p>	<p>While there is low potential for discovering archaeological resources, the Applicant will be required to develop and file a chance find procedure as reflected in Permit condition 17.</p>

Comment/Concern	Mitigation/Accommodation (if required)	Future Action/Commitment
<p><b>Environmental Monitoring</b>                      Aboriginal groups asked for clarification as to under what circumstances an environmental monitor would be present for construction activities.</p>	<p>The Construction and Environmental Management Plan (CEMP) - section 3.2, page 9 - indicates that an environmental monitor "will be present for the following types of work:</p> <ul style="list-style-type: none"> <li>• any intrusive work (i.e. soil excavation or movement)</li> <li>• in-water works, installation</li> <li>• inspection, and maintenance of any erosion and sediment control measures, and</li> <li>• at the start-up of new phases of work."</li> </ul>	<p>VFPA permit condition requiring WCMRC to carry out the Project in compliance with the Construction Environmental Management Plan, including having a qualified environmental professional monitor the project) as reflected in Permit conditions 27, 28 and 29.</p>
<p><b>Process (Capacity Funding)</b>                      An Aboriginal group characterized participant funding as insufficient for the purposes of carrying out a meaningful assessment impacts to their rights and title.</p>	<p>The amount of participant funding offered by VFPA was based on capacity assistance offered for similar, Category C projects; funding for these projects included detailed cost estimates for the review services required.</p>	<p>For future project referrals, VFPA will consider requests for participant funding outside the range normally offered, provided they are accompanied by a breakdown of costs and per-diems.</p>

Comment/Concern	Mitigation/Accommodation (if required)	Future Action/Commitment
<p><b>Water quality monitoring</b>                      Aboriginal groups asked for clarification on water quality monitoring, and asked that any monitoring plans be shared with Aboriginal groups for review 21 business days prior to construction.</p>	<p>VFPA is not requesting water quality monitoring, due to the following mitigations that will be put in place by the applicant:</p> <ul style="list-style-type: none"> <li>• An environmental monitor will be on-site during any soil excavation or movement, ensuring all appropriate mitigations noted in section 6.6 (Erosion and Sediment Control) of the Construction and Environmental Management Plan ; and,</li> <li>• Specific mitigations for managing contaminated soil are identified in section 6.7 (Contaminated Soil and Groundwater Management Plan) of the Construction and Environmental Management Plan.</li> </ul> <p>If the project is approved, VFPA will require the applicant to implement the aforementioned mitigations noted in the Construction and Environmental Management Plan.</p>	<p>VFPA permit condition requiring WCMRC to carry out the Project in compliance with the Construction Environmental Management Plan as reflected in Permit condition 27.</p>
<p><b>Review of Additional Environmental Plans</b>                      Aboriginal groups requested 21 business days to review any additional environmental protection plans.</p>	<p>Two environmental plans will be developed prior to construction (noted in sections 6.6 and 9.0 of the Construction and Environmental Management Plan):</p> <ul style="list-style-type: none"> <li>• Erosion and Sediment Control Plan; and,</li> <li>• Waste Management Plan.</li> </ul>	<p>VFPA permit condition requiring WCMRC to share Erosion and Sediment Control Plan and Waste Management Plan with Aboriginal groups, 40 business days before commencing construction – Permit condition 21. 40 business days is in addition to the 21 days requested, to allow for VFPA review and any related communications.</p>

Comment/Concern	Mitigation/Accommodation (if required)	Future Action/Commitment
<p><b>Increased Vessel Traffic</b>                      Aboriginal groups requested the development of notification protocols / vessel management plans for increased traffic in Burrard Inlet.</p>	<p>The proposed base will not increase vessel traffic in Burrard Inlet, consolidating WCMRC's existing fleet of vessels, with room to berth an additional response vessel from Vancouver Fire and Rescue Services.</p>	<p>VFPA and WCMRC have committed to continuing to engage with Aboriginal groups regarding vessel management issues, should other projects raise similar concerns.</p>

VFPA has made a meaningful effort to consult with all potentially affected Aboriginal groups. Based on the record of consultation, VFPA is of the view that the duty to consult has been met.

VFPA and the Applicant have committed to discussing potential opportunities with Aboriginal groups to support monitoring efforts set out in the *Burrard Inlet Action Plan*. VFPA has also committed to pursuing discussions with Aboriginal groups on the concept of a habitat skirt forming part of an in-water structure for a future project. This would be an exploratory discussion to see if the initiative could possibly support nearshore habitats.

## 6 ENVIRONMENTAL REVIEW

To fulfill its responsibilities under the *Canada Marine Act* and CEAA, 2012, VFPA must make a determination on the potential environmental effects of a proposed project on VFPA managed lands and waters prior to authorizing those works to proceed. To make that determination, VFPA considers the residual adverse effects of the project, that is, the effects after mitigation measures have been taken into account. In addition, should a project be approved, VFPA includes additional environmental conditions in the project permit to further reduce the identified potential impacts.

This section of the project and environmental review report summarizes the environmental review conducted for the WCMRC Oil Spill Emergency Response Base, and provides the environmental review decision in Section 6.3. The environmental review also considered the information provided in the previous sections of this report.

### 6.1 Scope of Environmental Review

The environmental review includes consideration of the potential environmental effects of the proposed project, taking into account mitigation measures to avoid or reduce those effects. This review considered the project components and physical activities described in Section 2. Additional project information pertinent to the environmental review includes the following:

- An aquatic effects assessment of marine habitat in the Project area identified a community of bull kelp that dominates the shallow subtidal zone (< 5 m CD) along much of the shoreline. Bull kelp was absent below and along the north face of the existing pier where the proposed access float would be located. Other high value fish habitat was not observed on the north side of the existing pier. Vessel use during operation is not anticipated to affect bull kelp as the proposed floats are located greater than 30 m from bull kelp and vessels would not need to operate near the beds. The Project was found to have no significant residual adverse effects to fish or fish habitat provided the recommended mitigation measures are implemented.

- A terrestrial biophysical survey determined the Project area consists largely of disturbed, low quality habitat and invasive, noxious and non-native vegetation. The Project was found to have negligible impacts to terrestrial wildlife and vegetation.
- The lighting design technical memo prepared for the Project found that lighting from the oil spill response base will be well contained within the water lot boundaries. LED type lighting will be used, and is described as Dark Sky Approved.
- A preliminary assessment of archaeological potential at the site determined that the risk of disturbing intact archaeological deposits is low. A chance find procedure was recommended to be included in the Project's Construction Environmental Management Plan given the remote possibility that fill used at the site may contain archaeological material redeposited from another location. A chance find procedure was required to be submitted as a separate document, as Permit condition 17.
- The Stormwater Pollution Prevention Plan prepared for the Project identifies specific mitigation measures to be implemented to minimize impacts from stormwater runoff to Burrard Inlet, including the installation of a Stormceptor and oil-water separator, use of secondary containment in hazardous material storage areas, implementation of a preventative maintenance program, and training.
- A Limited Phase II Environmental Site Assessment (ESA) of the site identified lead and pH in soil and polycyclic aromatic hydrocarbons (PAHs), metals, and sulphate in groundwater above relevant criteria. Contaminated soil and groundwater management options are included in the Project's Construction Environmental Management Plan.
- The Construction Environmental Management Plan prepared for the Project identifies specific mitigation measures to be implemented, including appropriately disposing of invasive plants, conducting shoreline works in the dry, timing activities to occur within least risk work windows for birds and aquatic species, and monitoring by a qualified environmental monitor.

The temporal scope of the review includes site preparation, project construction, and operations.

The environmental review considered potential adverse environmental and social effects of the project on 14 environmental components (e.g., species with special status, aquatic species and their habitat, recreational interests, etc.) and from Accidents and Malfunctions. These environmental components are aspects of the biophysical and socio-economic environment considered to have ecological, economic, social, cultural, archaeological, or historical importance.

Section 6.2 summarizes the results of the review.

## 6.2 Environmental Effects Summary

The following table summarizes the potential environmental effects the project could have on the identified environmental components.

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The Project is not expected to significantly increase emissions. Mitigation measures outlined in the Construction Environmental Management Plan will be implemented during construction to minimize dust generation and avoid unnecessary idling.</p> <p>With mitigation in place, significant residual adverse effects are not anticipated.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Outdoor lighting has been designed to be well contained within the water lot boundaries. LED type lighting will be used. No construction works at night are associated with the Project.</p> <p>With mitigation in place, significant residual adverse effects from Project-related lighting are not anticipated.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The Project is located in a busy industrial area within approximately 50 m of residences and other noise sensitive areas. Typical construction noise generally associated with construction activities will be generated, but will be limited to regular construction hours.</p> <p>Project-related noise during construction is not anticipated to be significant. Once the spill response base is in operation, noise levels are not anticipated to increase significantly.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Spills or on-site storage of excavated contaminated soils may potentially affect soil quality.</p> <p>Mitigation measures outlined in the Construction Environmental Management Plan will be implemented to reduce potential adverse, environmental effects.</p> <p>With mitigation in place, significant residual adverse effects are not anticipated.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Sediments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The Project will increase the impervious pavement surface area, potentially increasing stormwater runoff to Burrard Inlet. Most stormwater runoff on the upland site will be directed to the parking lot catchbasin then to an oil-water separator and Stormceptor oil-grit separator for treatment prior to discharge via the existing outfall at the north-west corner of the site.</p> <p>Spills or on-site storage of excavated contaminated soils may potentially affect sediment quality.</p> <p>Management practices outlined in the Stormwater Pollution Prevention Plan will be implemented to reduce potential adverse, environmental effects during operation.</p> <p>Mitigation measures outlined in the Construction Environmental Management Plan will be implemented to reduce potential adverse, environmental effects during construction.</p> <p>With mitigation in place, significant residual adverse effects are not anticipated.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ground water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Spills or placement of contaminated fill may potentially affect ground water quality.</p> <p>Mitigation measures outlined in the Construction Environmental Management Plan will be implemented to reduce potential adverse, environmental effects during construction.</p> <p>With mitigation in place, significant residual adverse effects are not anticipated.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Surface water and water bodies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The Project will increase the impervious pavement surface area, potentially increasing stormwater runoff to Burrard Inlet. Most stormwater runoff on the upland site will be directed to the parking lot catchbasin then to an oil-water separator and Stormceptor oil-grit separator for treatment prior to discharge via the existing outfall at the north-west corner of the site.</p> <p>Hydrocarbon product spills and accidental releases of cement or lime-containing construction materials may potentially affect surface water quality.</p> <p>Construction activities have the potential to generate sources of sediment.</p> <p>Management practices outlined in the Stormwater Pollution Prevention Plan will be implemented to reduce potential adverse, environmental effects during operation.</p> <p>Mitigation measures outlined in the Construction Environmental Management Plan will be implemented to reduce potential adverse, environmental effects during construction.</p> <p>With mitigation in place, significant residual adverse effects are not anticipated.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Species/habitat with special status	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The Project is not anticipated to affect species with special status.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Terrestrial resources (e.g., vegetation, wildlife, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>One small (less than 30 cm diameter breast height) cottonwood tree may be removed in the area of the proposed eastern modular building. The tree to be removed and other vegetation do not provide productive or diverse habitat features or functions for fish or wildlife. The loss of the tree and disturbance of other vegetation is not anticipated to affect the productive capacity of terrestrial resources.</p> <p>Mitigation measures will be implemented to reduce potential adverse, construction-related environmental effects (e.g., protection of birds and/or their active nests and eggs from vegetation clearing during</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
			the bird nesting season and prevention of the spread of invasive and noxious plants). With the implementation of mitigation measures outlined in the Construction Environmental Management Plan, the residual adverse effect is anticipated to be not significant.		
Wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The Project is not anticipated to affect wetlands.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Aquatic resources (e.g., aquatic plants, fish and fish habitat, waterbirds, marine mammals, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Project-related activities have the potential to disturb aquatic species and fish habitat (e.g., through induced turbidity and other changes to water quality, sensory disturbance to marine mammals, disruption to migrating fish populations, and accidental spills). High value fish habitat in the form of bull kelp dominates much of the shallow subtidal zone on the east and west side of the existing pier, but is absent below and along the north face where the new access float will be located.  Mitigation measures outlined in the Construction Environmental Management Plan will be implemented to reduce potential adverse, environmental effects.  With mitigation in place, significant residual adverse effects are not anticipated.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Archaeological, physical, and cultural heritage resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archaeological monitoring conducted during geotechnical investigations in 2015 did not identify archaeological deposits. The presence of fill material was observed from ground surface to approximately 4 to 4.5 m below grade. The maximum depth of excavation associated with the Project is estimated to be 2.5 m below grade and is not anticipated to exceed the depth of fill.  The Project is not anticipated to affect archaeological, physical, and cultural heritage resources.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Aboriginal Group interests (health and socio-economic conditions, current use of lands and resources for traditional purposes)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Section 5 provides an overview of the concerns raised by Aboriginal Groups during VFPA consultation about the Project. With mitigation measures in place (as described in Section 5) residual adverse effects on Aboriginal Group interests are anticipated to be not significant.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Recreational interests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The Project is not anticipated to affect recreational interests.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Accidents and malfunctions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There is potential for adverse effects on surface water and sediment from accidental equipment leaks or spills.  Mitigation measures will be implemented to reduce potential adverse, Project-related effects due to accidents, including an appropriate spill prevention, containment, and clean-up contingency plan for hydrocarbon products (e.g., fuel, oil, etc.) and other deleterious substances.  With mitigation in place, the residual adverse effect, if it occurs, is expected to be not significant. Remediation of any residual adverse effect is anticipated to be achievable.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 6.3 Environmental Review Decision

In completing the environmental review, VFPA 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 Permit conditions, the Project is not likely to cause significant adverse environmental effects.

ORIGINAL COPY SIGNED

---

**ANDREA MACLEOD**  
**MANAGER, ENVIRONMENTAL PROGRAMS**

May 8, 2017

---

**DATE OF DECISION**

### 7 RECOMMENDATION

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

It is the recommendation of staff that this application be approved subject to conformance with the project and environmental conditions listed in project permit **PER No. 16-290**.

## APPENDIX A Location Plan



## **APPENDIX B**

### **List of Information Sources**

**VFPA has relied on the following sources of information in the project and environmental review of the Project:**

- Application form and materials submitted by Applicant on behalf of the tenant on October 24, 2016.
- All Project correspondence from October 24, 2016 to May 8, 2017;
- All plans and drawings labelled PER No.16-290 – A to G;
- “Western Canada Marine Response Corporation, 2800 Commissioner Street, Vancouver”, April 10, 2017, by Hemmera;