

## Appendix A

### *VFPA Project & Environmental Review Permit Application*

Western Canada Marine Response Corporation

Oil Spill Response Base

2800 Commissioner Street

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Project & Environmental Review Permit Application



**Prepared by**

WCMRC  
October 2016  
Revision NR

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## 1.0 Introduction and Concordance Table

Western Canada Marine Response Corporation (“WCMRC”) is proposing to build an oil spill response base within Port of Vancouver (“POV”) jurisdiction at 2800 Commissioner St. in Vancouver, BC.

Based on guidance received from POV, WCMRC has prepared a Category ‘C’ Project Permit Application (the “Application”). This appendix (Appendix A) and its subsequent Schedules are intended to meet POV’s Category ‘C’ application requirements.

WCMRC has used POV’s Project & Environmental Review Application Submission Requirements, as well as guidance from POV, to form the basis of the Application. For ease of reference, and in the interest of ensuring WCMRC has met all of POV’s application requirements, WCMRC has prepared a Concordance Table which summarizes how requirements have been addressed.

The table is contained at **Schedule 1 – Concordance Table**.

## 2.0 Project Summary

This section provides information about WCMRC, the requirement that WCMRC is addressing through a proposed new oil spill response base, as well as detail about the scope and timing of the project.

### 2.1 Western Canada Marine Response Corporation

WCMRC is the response organization certified by Transport Canada to respond to marine oil spills along British Columbia’s 27,000 km of coastline and inland navigable waters as defined under the *Canada Shipping Act, 2001*. WCMRC’s mandate is to ensure that a state of preparedness is in place to mitigate the impacts of an oil spill. This includes the protection of cultural, economic, and environmental sensitivities, and the safety of both the responders and the public.

Established in 1976 as an industry co-op, WCMRC became Canada’s first certified response organization in 1995. The shipping industry and oil-handling companies operating along the coast support WCMRC by fully funding the costs of maintaining a state of preparedness. WCMRC is funded through four main sources:

- > Membership fees
- > Bulk oil cargo fees paid by members who receive or ship product across the WCMRC dock
- > Capital asset/loan fee (CALF), which is a variable fee used for capital purchases and/or asset loans
- > Response fees

WCMRC’s members include oil-handling facilities, barging companies, freighters calling on BC ports, ferries, cruise ships, US-bound vessels travelling through Western Canadian waters, forest industry facilities, fishing camps, and float plane companies.

WCMRC is regulated by Transport Canada and works closely with the Canadian Coast Guard (the federal monitoring officer), Environment Canada, and the provincial Ministry of Environment.

WCMRC's main office is in Burnaby, with regional offices currently located in Duncan and Prince Rupert. WCMRC's full- and part-time staff are available 24 hours per day, 7 days per week for spill response and can access vessels and equipment caches located strategically along the West Coast.

A supplementary summary of WCMRC, its history, and its operations is contained at **Schedule 2 – Marine Spill Response on the West Coast.**

## 2.2 Requirement

The Trans Mountain Pipeline Expansion Project ("TMEP") proposes to expand the current 1,150-km Kinder Morgan pipeline between Strathcona County (near Edmonton), Alberta and Burnaby, BC. If approved, the expansion will result in a fully twinned pipeline, increasing the nominal capacity of the system from 300,000 barrels per day to 890,000 barrels per day. Trans Mountain expects tanker traffic to increase from about 60 tankers per year to about 408 per year. This traffic would transit through Vancouver Harbour, the Strait of Georgia, Boundary Pass, Haro Strait, and the Strait of Juan de Fuca.

As part of the project planning process, TMEP requested that WCMRC consider the new voluntary planning standards being proposed, which will translate into an enhanced capability for this shipping route.

Current planning standards under the *Canada Shipping Act, 2001* (CSA) require WCMRC to respond to oil spills of up to 10,000 tonnes in specified time frames that, in some cases, allow up to 72 hours to deliver response equipment on scene.

As part of the project application to the National Energy Board (NEB), TMEP proposed a series of enhancements to the current CSA planning standards that would allow WCMRC's response capability to accommodate additional marine traffic from the Project. TMEP's commitments for the proposed enhancements to WCMRC's emergency response capacity can be found in Volume 8A of the project application, page 608 in Table 5.5.3 (Appendix A).

Subject to NEB and federal approval of TMEP, WCMRC plans to have the enhanced regime fully operational prior to the proposed TMEP in-service date, which TMEP expects to be in 2019.

## 2.3 Proposed Oil Spill Response Base Project Description

Moffatt & Nichol (M&N), WCMRC's Owner's Engineer, has prepared a 90% complete design based on Western Canada Marine Response Corporation (WCMRC) acceptance

of a conceptual and preliminary layout for the required marine structures associated with WCMRC's proposed spill response base at Port Metro Vancouver property at 2800 Commissioner Street in Vancouver.

M&N's Class 'A' cost estimate and subsequent design is contained at **Schedule 3 – Class 'A' Estimate.**

The layout of the proposed facility is based on input provided by WCMRC. Key features for the generic spill base response are:

- Two (2) 60ft x 14ft modular office building;
- Parking for twenty (20) vehicles;
- Floats to accommodate a vessel mix of two barges, six spill response vessels, and firewater boat;
- Gangway access to floats, and;
- Ramp access.

This site originally housed the old Prince Rupert Fisherman's Cooperative Association Building which was constructed circa 1964 and a freezer addition to the primary structure in 1978. The building was subsequently demolished leaving only the reinforced concrete wharf deck which is supported on concrete piles.

M&N performed an above and below water condition assessment of the existing piles and wharf deck on October 24, 2014. The inspection determined that out of the seventy five concrete piles most were in good condition and there were only two piles that were observed with cracks. The shore abutment showed severe cracking in the seaward face along most of its length which will likely require extensive repairs or replacement.

The existing concrete piles appear to be in generally good condition considering that the structure is approximately fifty years old (originally constructed in the mid to late sixties). Although the facility is in good condition, is very likely that the piles would not meet modern seismic requirements for current building codes for an occupied structure. As details of design information and structural details are not available for the concrete wharf, the level of seismic event that the wharf was originally designed to withstand is unknown. A high level seismic assessment of the existing wharf under the 1 in 475 year seismic event indicated that it would likely not collapse but likely to sustain damage.

As a result, WCMRC has decided not to use the existing pile and deck structure to accommodate office building and occupancy, but to use it as an access corridor to the response vessels and it will be retained for this purpose only.

Renderings of the proposed project are contained in **Schedule 16 – Project Renderings**

## 2.4 Description of Marine Structures

The existing pile supported reinforced concrete wharf will be retained, and a new proposed spill base response facility will comprise the following structures as shown on Drawing 8614-GN 100 in Schedule 3 – Class 'A' Estimate:

- Retain existing concrete wharf with an approximate footprint area of 1980 m<sup>2</sup>;
- Provide asphalt re-surfacing on top of existing concrete wharf;
- Repair concrete abutment beam;
- Supply and install timber bull rails around the perimeter of the existing wharf;
- Supply and install two (2) 60 ft x 14 ft (78 m<sup>2</sup>) modular office buildings;
- Supply and install one 2.4m wide 24m long aluminum gangway and piled steel support platform;
- Supply and install a concrete landing float and 116m long, 3.0m wide concrete float;
- Supply and install steel piled dolphins to moor and berth barges;
- Supply and install sewage pump out on float;
- Supply and install in-ground new sewage lift station;
- Supply and install water supply to office building and floats;
- Supply and install lock block retaining wall along existing wharf to retain fill for parking area and provide a ramp access to the existing wharf;
- New riprap shore protection along the foreshore;
- New pavement and storm water drainage for the parking area, and;
- Electrical utilities for the floats and office building, and lighting for the upland area, wharf and float.

## 2.5 Operations Summary – Oil Spill Emergency Response Base

The proposed response base will employ approximately 15 personnel on a full-time basis. The base will be operated 24/7, 365 days per year with staffing minimized during night shift hours.

Site activities will include:

- Spill response deployment (as required);
- Routine vessel deployment;
- Vessel maintenance;
- Training and exercising; and
- Office administration.

Night shift activities will be limited to spill response deployment (as required) and office administration.

During steady state (non-spill event), WCMRC anticipates vessels will be departing and arriving at an approximate rate of 3 times per week in support of training and exercising and general response readiness preparation.

Vehicle traffic is expected to be minimal with peak traffic periods at the beginning and end of shifts. WCMRC may from to time (approximately once per quarter) have equipment delivered via a 53' tractor trailer. All other site-related vehicle traffic will be limited to personal vehicles and single-axle work trucks.

When operating in a spill event scenario whereby the base represents the closest WCMRC response base to the site of the spill, the base will represent a central hub for spill response activities. In this scenario, WCMRC will be fully operational 24/7 until spill response resources are no longer required. Traffic is expected to increase in such a scenario given the need to bring responders and equipment to vessels.

## 2.6 Project Overview Schedule

Activity	2016	2017				2018		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
<b>POV Project Permit Application Process</b>	Oct							
<b>POV Project Permit Received</b>	Dec							
<b>POV Building Permit Application Process</b>	Dec							
<b>POV Building Permit Received</b>		Jan						
<b>Contractor Procurement and Selection</b>		Feb						
<b>Construction Start</b>		Feb						
<b>Construction</b>								
<b>Construction Finish</b>							Apr	
<b>Delivery of Supporting Vessels</b>								
<b>Response Base Fully Operational</b>								Sep

## 2.7 Project Contact List

The table contained below outlines key project contacts.

Name	Role	Organization	Email	Phone
Michael Lowry	Manager, Communications	WCMRC	michael@wcmrc.com	604-293-3380

## 2.8 Project Stakeholder List

The table below lists all of the project stakeholders WCMRC has identified to date.

Stakeholder
<b>Project Proponent</b>
Western Canada Marine Response Corporation
<b>Project Partner</b>
Trans Mountain Pipeline Expansion Project
<b>Regulatory Authorities</b>
Vancouver Fraser Port Authority
Transport Canada
<b>Municipalities</b>
City of Vancouver
<b>Services Providers</b>
BC Hydro
Telus Communications
<b>Affected Communities</b>
East Vancouver Port Lands
<b>First Nations</b>
Tsleil-Watuth Nation
Squamish Nation
Musqueam Indian Band
Sto:lo Nation (via the People of the River Referrals Office)
Cowichan Tribes
Lake Cowichan First Nation
Lyackson First Nation
Stz'uminus First Nation
Penelakut Tribe
Halalt First Nation



### 3.0 List of Relevant Plans, Studies, Reports, and Other Documents

WCMRC has retained the services and expertise of a number of industry leaders to prepare the necessary documentation and analysis to support its Application.

The table below summarizes the content contained within the Application.

#	Report / Plan / Study / Document	Author	Date	Schedule	Page #
<b>General</b>					
1	Concordance Table	WCMRC	October 2016	1	N/A
2	Marine Spill Response on the West Coast	WCMRC	N/A	2	N/A
3	Overview of Potential Project Effects	Hemmera	October 2016	4	N/A
4	Project Renderings	Moffatt & Nichol	August 2016	16	N/A
<b>Engineering and Environmental</b>					
5	Response Plan (Spill Prevention and Emergency)	WCMRC	July 2016	9	N/A
6	Class A Estimate	Moffatt & Nichol	October 2016	3	N/A
6a	Drawings	Moffatt & Nichol	October 2016	3	8-43
6b	Design Basis	Moffatt & Nichol	September 2016	3	44-69
6c	Geotechnical Report	exp Services Inc.	October 2015	3	70-85
6d	Limited Phase II Environmental Site Assessment	exp Services Inc.	November 2015	3	87-177
6e	Archaeological Monitoring Report	Golder Associates Inc.	October 2015	3	178-189
6f	Detailed Cost Estimates	Moffatt & Nichol	October 2016	3	190-201
7	Archaeological Potential – Preliminary Assessment	Hemmera	September 2016	11	N/A
8	Terrestrial Biophysical Survey Report	Hemmera	September 2016	12	N/A
9	Aquatic Effects Assessment	Hemmera	September 2016	13	N/A
10	Lighting Plan	Moffatt & Nichol	September 2016	6	N/A
11	Construction Environmental Management Plan	Hemmera	September 2016	15	N/A
12	Noise Assessment Screening	WCMRC	October 2016	14	N/A
13	Navigation Impact Assessment	Moffatt & Nichol	September 2016	5	N/A
14	Stormwater Pollution Prevention Plan	Hemmera	October 2016	10	N/A
<b>Communications</b>					
15	Letter to East Vancouver Port Lands (EVPL) Liaison Group	WCMRC	July 2016	7	N/A

16	Presentation RE: Marine Spill Response in Vancouver Harbour	WCMRC	July 2016	7	N/A
17	Letter to Local First Nations w/ Project Description	WCMRC	July 2016	8	N/A

## 4.0 Additional Project Considerations, Mitigation and Information

### 4.1 Aboriginal Groups

In July 2016, WCMRC issued a formal notification of its project to the following aboriginal groups:

- Tsleil-Watuth Nation
- Squamish Nation
- Musqueam Indian Band
- Sto:lo Nation (via the People of the River Referrals Office)
- Cowichan Tribes
- Lake Cowichan First Nation
- Lyackson First Nation
- Stz'uminus First Nation
- Penelakut Tribe
- Halalt First Nation

The list of Nations was provided by POV.

The notification package is contained at **Schedule 8 – Communications to Aboriginal Groups.**

### 4.2 Third-Party Utilities

WCMRC has engaged both Telus and BC Hydro regarding site utility requirements. Water and sewage will be provided by the City of Vancouver. No gas connection is required and, therefore, Fortis is not considered a project stakeholder.

BC Hydro has confirmed capacity to support both the detailed design and subsequent effort associated with getting power to the site. The ability to run hydro to the site is currently dependent on POV's re-alignment of Commissioner St. and the adjacent property lessee's, Columbia Containers, site infrastructure modifications.

Telus has confirmed capacity to support the project and has also confirmed that their level of effort is minimal. Telus will be 'piggy-backing' off of BC Hydro conduits when power is run to the site. WCMRC considers Telus related services to be low risk given that WCMRC is able to use other communication avenues to operate the base (cell phones, etc.).

#### 4.3 Construction Communications Plan

The content of a draft Construction Communications Plan will be provided to VPFA as applicable following VFPA confirmation of requirement(s).

#### 4.4 Buildings

The proposed response base will include two (2) modular office buildings to be placed on the east side of the site (see Schedule 3, page 14, drawing GN-100 for approximate location). WCMRC is currently in the process of procuring the design, construction, and delivery of the office buildings.

As exact dimensions are not known at this time, approximate dimensions and design assumptions are as follows:

- Dimensions of each office trailer will not exceed 14ft x 60ft;
- Height to the top of the roof line will not exceed 15ft from grade;
- The two buildings may be connected using an awning spanning from the roof to roof;
- Awning height from grade will not exceed 18ft;
- Width of the awning will be approximately 20ft;
- Cladding material is not yet known;
- Colour scheme is not yet known; and
- Foundations will be timber-block.

WCMRC anticipates submitting a building permit application by the end of October 2016.

#### 4.5 Construction Staging

Given the nature of the project and the size of the site, WCMRC anticipates delivery of the majority of construction materials to occur 'just-in-time.' For the upland component of the project, WCMRC anticipates the majority of material to be delivered by road. For the marine component, WCMRC anticipates the use of on-water barges to deliver floats (constructed off-site) and other materials required for the marine configuration.

WCMRC will require its construction contractor to develop a construction staging methodology, including the identification site laydown areas if required.

#### 4.6 Project Signage

Proposed signage on the modular office trailers will consist of a 24" x 48" sign with white background and blue lettering on each trailer.

Signs may be illuminated using a light placed over the sign and facing the ground to minimize light spillage.

Signage will look similar to:



Similar signage will be posted at the entrance to the response base to identify the site as a WCMRC spill response base. Entrance signage is anticipated to be approximately 48" x 96" and will be illuminated to ensure visibility from the roadway at night.

#### 4.7 Emergency Vehicle Access

WCMRC anticipates all emergency service access to come through POV's McGill St. Access Gate and then down Commissioner St. to the site location. The site only contains a single point of entry and exit on the west side of the site.

WCMRC, through Moffatt & Nichol, has modelled the turning radius of emergency vehicles, including firetrucks, entering the site and has determined that there is sufficient allowance for access.

Vehicle manoeuvring drawings can be found in **Schedule 3 – Class 'A' Estimate** (page 20-21).

#### 4.8 Fire Safety Plan

In the event of a fire, WCMRC personnel will follow emergency procedures that have been established for all WCMRC facilities. Key steps include the following:

- Pull the fire alarm (located throughout the main building).
- Proceed to the muster station NW parking lot.
- Call 911.

- Await further instructions
- Do not leave the site or go back to the building unless instructed

As part of the response base and equipment program, WCMRC will utilize the services of a third party safety consultant to create site-specific procedures, including identification of the muster location based on the site layout and activities.

## 5.0 Other Regulatory Approvals

### 5.1 Transport Canada *Navigation Protection Act* Notice of Works

WCMRC is in the process of submitting a Notice of Works to Transport Canada under the Navigation Protection Act. The Notice of Works will be submitted by end of October 2016.

### 5.2 Department of Fisheries and Oceans

Under the *Fisheries Act*, proponents are responsible for avoiding and mitigating serious harm to fish that are part of or support commercial, recreational, or Aboriginal (CRA) fisheries.

WCMRC, through Hemmera Envirochem, conducted an Aquatic Effects Assessment which is contained at **Schedule 13 – Aquatic Effects Assessment.**

The Aquatic Effects Assessment concludes that:

“Construction and operation of the proposed project is not expected to result in residual Serious Harm to fish provided that the recommended mitigation measures are applied. Therefore, a *Fisheries Act* Authorization is not required for the project.”