

Please do NOT submit an application if you have not yet submitted a Preliminary Project Inquiry to Vancouver Fraser Port Authority (VFPA) for your proposed project. Category C and D applications will only be accepted after VFPA has conducted a Preliminary Review of the proposed project.

Information in this form and attached documents may be made public and sent to other authorities during the Project and Environmental Review Process and is subject to the Access to Information Act.

The following fees will apply: *Please submit a cheque for \$2625 payable to Vancouver Fraser Port Authority and a documentation deposit equal to 1% of project cost (min. \$1500 - max. \$10,000). Payment will be processed when VFPA considers the application to be complete. Document deposits will be returned upon completion of construction and submission of as-built drawings.*

PROJECT TITLE

Centerm Expansion Project

PROPOSED CATEGORY OF REVIEW (C OR D):

PER REFERENCE NUMBER

D

15-012

SECTION A. CONTACT INFORMATION

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SECTION B. PROJECT LOCATION

If the project location is not the same as the tenant address provided in Section A, please attach a map such as a Google satellite screen shot indicating the location of the project, and a site plan showing the project area and components.

STREET ADDRESS OR LOCATION DESCRIPTION

Burrard Inlet South Shore, Approx. Street address: 777 Centennial Road

MUNICIPALITY

Vancouver

SECTION C. ESTIMATED COST AND PROPOSED TIMING AND DURATION OF PROJECT

If the project location is not the same as the tenant address provided in Section A, please attach a map such as a Google satellite screen shot indicating the location of the project, and a site plan showing the project area and components.

ESTIMATED PROJECT COST (\$)

\$ 454,000,000.00

DOCUMENTATION DEPOSIT AMOUNT (1% OF PROJECT COSTS TO MAX. \$10,000)

PROPOSED START DATE (MM/DD/YYYY)

07/01/2017

PROPOSED COMPLETION DATE (MM/DD/YYYY)

12/31/2019

WILL ALL CONSTRUCTION ACTIVITIES TAKE PLACE MONDAY TO SATURDAY BETWEEN 7:00 AM AND 8:00 PM EXCLUDING HOLIDAYS? IF NO, PLEASE DESCRIBE PROPOSED CONSTRUCTION HOURS AND RATIONALE.

Some activities will require 24 hr working, including marine dredging and fill, and overpass structure foundations and erection. These are discussed further in section 2.6.

SECTION D. PROJECT SUMMARY

Please provide a brief summary of the project including the purpose of the project and all proposed works.

See Section 2: Proposed Project for detailed project description.

Attach detailed project description, as required.

SECTION E. LIST OF RELEVANT PLANS, STUDIES, REPORTS AND OTHER DOCUMENTS

Please list the relevant plans, studies, reports and other documents that are attached to the application.

Section 4: Studies and Reports provides a list of studies and reports prepared in support of this application.

Attach plans and reports.

SECTION F. ADDITIONAL PROJECT CONSIDERATIONS, MITIGATIONS AND INFORMATION

Describe any other additional information, such as mitigation measures that are not provided elsewhere in the plans and reports attached to the submission, as applicable.

Attach plans and reports, as applicable.

SECTION G. OTHER REGULATORY APPROVALS

Has the project been submitted for review to another agency or regulatory authority (e.g. Environment Canada for a Disposal at Sea Permit)? If yes, describe.

Fisheries and Oceans Canada (DFO) - Request for Review with regard to habitat compensation requirements.
Environment & Climate Change Canada (ECCC) - Sediment Sampling and Characterization Program to support a potential future Disposal at Sea Permit.

SECTION H. BUILDING PERMITS

Are there structures that are considered to be reviewable under the 2010 National Building Code and National Fire Code?

YES NO

Will the submission of building permits be phased? If yes, please attach schedule describing each phase.

YES NO

SECTION I. SUBMIT

Please attach a copy of the completed application form and send to the email address:
PER@portvancouver.com

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Volume 7	Staging Plans

Alternative Siting Report**View and Shade Study****Project Energy Study****Traffic Impact Study****South Shore Emergency Access Study****Terminal Rail Operating Plan****Air Transportation Impact Study****Marine Transportation Impact Study****Geotechnical-Marine Summary****Environmental Study Report**

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1. Introduction

1.1 Background

The Centerm Container Terminal (Centerm) on the south shore of Vancouver's inner harbour is one of three primary container terminals in the Vancouver area and handles approximately one-fifth of the container goods shipped through Vancouver. DP World Vancouver (DPWV) operates the terminal on federal lands and waters which is leased from the Vancouver Fraser Port Authority (port authority).

Trade of containerized goods shipped through Canada's west coast is increasing. In 2015, container terminals on the west coast of Canada (including Vancouver and Prince Rupert) handled more than 3.8 million twenty-foot equivalent units (TEU), or twenty-foot equivalent unit containers, with nearly 3.1 million TEUs handled by container terminals in the Port of Vancouver. The Port of Vancouver's container terminals (Vanterm, Deltaport, Fraser Surrey Docks, and Centerm) are currently able to handle an estimated 3.9 million TEUs per year.

Independent forecasts completed for the port authority by international experts in transportation and trade indicate that container traffic through the west coast of Canada will increase by approximately 3.5 million TEUs by 2035. This growth is driven primarily by the growing demand between Canada and Asian markets for imported products such as clothing, food, electronics and manufacturing inputs, such as car parts, and exports of Canadian products such as pulp, paper, lumber and specialty grains.

The port authority is mandated to ensure that terminal capacity is available to meet Canada's trade needs. The Container Capacity Improvement Program is the port authority's long-term strategy to provide container terminal capacity to meet future needs for Canadian trade. The Container Capacity Improvement Program was established in 2010 to examine three opportunities:

- Improvements at existing terminals to increase their capacity and efficiency;
- Conversion of other existing terminals to handle containers; and
- Building a new terminal.

As part of the program, the port authority is currently making improvements at Deltaport in Delta. However, even with these improvements, and capacity increases planned for the Fairview Terminal in Prince Rupert, Canada's west coast will still require additional container capacity by the mid-2020s. To meet this demand, the port authority is proposing to increase container capacity at Centerm in Vancouver and build the Roberts Bank Terminal 2 Project in Delta.

This document provides an overview of the information submitted as part of the Project and Environmental Review Application, outlines content, and highlights where specific requirements can be found within the supporting material.

1.2 Centerm Expansion Project Team, Vancouver Fraser Port Authority

The Vancouver Fraser Port Authority is a non-shareholder, financially self-sufficient entity, established by the Government of Canada in January 2008 pursuant to the *Canada Marine Act* (S.C. 1998, c.10) (CMA) and is subject to the provision of the CMA, the Regulations and Letters Patent issued pursuant thereto.

The port authority is responsible for the stewardship of port lands and waters in and around the Port of Vancouver. The port authority's mandate is to facilitate Canada's trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities.

The port authority's vision is to be the world's most sustainable port, as defined by its sustainable port definition of economic prosperity through trade, healthy environment and thriving communities. The port authority is attentive to the importance of assisting in the development of local communities, encouraging community engagement, and working together to build a sustainable future.

The Centerm Expansion Project Team (Project Team) consists of port authority staff and subject matter experts. The Project Team includes engineers, environmental scientists, project managers and communications and engagement specialists. The Project Team is working closely with DP World Vancouver, the operator of Centerm, to deliver this project.

1.3 DP World Vancouver

DP World is one of the largest marine terminal operators in the world, with 77 terminals across six continents, of which container handling generates around 80 percent of its revenue. In 2015, DP World handled around 62 million TEU across its portfolio from the Americas to Asia - a record achievement for the company. With anticipated expansion and development projects in key growth markets, including India, China and the Middle East, capacity is expected to rise to around 95 million TEUs over the next ten years.

DP World Vancouver is the Vancouver division of DP World (Canada) Inc., located in Vancouver, British Columbia. It operates the Centerm container terminal and provides stevedoring services for many of the world's shipping lines and marine consortia. Operating from 16 ports in British Columbia, the DPWV Stevedoring Division is British Columbia's oldest established stevedoring company, with offices and personnel located up and down the west coast of Canada. In 2015, DP World Vancouver employed 157 staff, and the equivalent of 320 full-time international Longshore and Warehouse Union workers at Centerm.

As part of DP World's commitment to sustainability, DP World is focused on long-term investments and becoming a part of the communities in which it operates. As part of the DP World "Our World, Our Future" global sustainability programme, DP World Vancouver partners and provides input, support and expertise to local non-profit organizations and schools as part of its commitment to building a vibrant, secure, and resilient society through strategic investment in the issues that affect communities and the industry.

For more information about DP World Vancouver, please visit their website at www.dpworld.ca.

1.4 Procurement Methodology

The port authority intends to deliver the proposed Project under a single Design-Build (DB) contract where the selected contractor develops and constructs the final design of the proposed Project based on the performance requirements and details established by the Project Team. DPWV will be procuring the terminal operating systems and equipment.

1.4.1 Building Permits

The preparation, application and coordination of project building permit(s) will be carried out by the DB Contractor as the design progresses into the detailed design stage. It will be a project requirement that building permits are in place before construction begins on any associated work.

1.4.2 Other Permits

In addition to the PER Permit from the port authority, a number of permits and approvals will need to be obtained prior to proceeding with construction of the proposed Project. These include:

- A Fisheries and Oceans Canada (DFO) Authorization under Section 35(2) of the *Fisheries Act*;
- An Environment and Climate Change Canada Disposal at Sea Permit (for disposal of dredged material);
and
- BC Ministry of Environment (MOE) permits for any soils that cannot be contained on-site and require disposal elsewhere.

DPWV may also be required to obtain permits for major terminal operating systems and equipment.

2. Proposed Project

2.1 Project Location and Setting

Centerm is an existing container terminal operated by DP World Vancouver on the south shore of Vancouver's inner harbour, and is located on federal lands and waters managed by the port authority. It is one of three primary container handling terminals in the Port of Vancouver and handles approximately one-fifth of the goods shipped in containers through the port. Immediately adjacent to Centerm, the transportation corridor comprises a complex network of roads and railway tracks serving the industrial operations on the south shore.

Centerm is bounded by East Waterfront Road, Centennial Road, and the Canadian National Railways (CN) Rail yard to the south and extends into the Burrard Inlet to the north to a maximum distance of 500 metres (m) from the shore. The terminal site (the Site) is designated as a "Port Terminal" under the port authority's *Land Use Plan* (Vancouver Fraser Port Authority 2014). Centerm currently covers approximately 31 hectares (ha) of port authority land from Hawks Avenue in the east to Main Street in the west. The Site occupies 2 kilometres (km) along the south shore of Burrard Inlet and is located east of Canada Place and the SeaBus terminal, northeast of CRAB Park at Portside, and west of Lantic (Rogers Sugar) and the Vanterm Terminal. The coordinates of the approximate centre of the Site are 49°17'14" N, 123°05'34" W.

This transportation corridor stretching from Main Street to Clark Drive and beyond serves not only Centerm, but also adjacent terminals including Lantic (Rogers Sugar), Alliance Grain Terminal, Vanterm Container Terminal, Main Street Docks, and the Canadian Fishing Company (Canfisco). The road network is split either side of Centerm, with East Waterfront Road terminating at Dunlevy Avenue, and Centennial Road connecting the Centerm entrance gates to Stewart Street and Clark Drive. Between these roadways, a large railway yard is operated by Canadian National Railways (CN). The geographic coordinates of this area of the transportation corridor are 49°16'59.5" N, 123°04'50" W.

2.2 Project Overview

The port authority is proposing to increase the movement of goods through the Port of Vancouver by expanding Centerm and improving transportation connections in the south shore port area.

The proposed Centerm Expansion Project (CEP) is in keeping with the port authority's Container Capacity Improvement Program, a long-term strategy to deliver projects to meet anticipated growth in container capacity demand through, in part, improvements at existing terminals. As a result of the decision to close the Ballantyne Cruise Terminal at the east end of Centerm and consolidate cruise operations at Canada Place, there is an opportunity to expand Centerm to meet the near-term demand for increased container handling capacity.

The CEP was established to identify, develop, and deliver modifications to the Centerm Container Terminal to facilitate the desired terminal capacity increase.

The CEP is a series of proposed improvements to the Centerm Container Terminal. The proposed infrastructure improvements would increase the number of containers that can be handled at Centerm by approximately two-thirds, from a current maximum annual capacity of 900,000 TEU/year to 1.5 million TEU/year. During peak operations, the number of containers that can be handled at the terminal would increase from an annual

sustainable capacity of 750,000 TEUs to 1.3 million TEUs. To increase the container capacity of the terminal by 67 per cent, the proposed terminal improvements include an expansion of the terminal footprint by 15 per cent and reconfiguration of the terminal.

The proposed off-terminal works, collectively referred to as the South Shore Access Project (SSAP), includes a new Centennial Road Overpass, and an extension to Waterfront Road. The proposed off-terminal works complete the port authority's long-term objective of providing a contiguous port road along the entire south shore port area to increase efficiency and access. The proposed work addresses road congestion issues for port users by effectively eliminating three at-grade rail crossings for Centerm container trucks and other port vehicles.

Collectively, the proposed CEP and SSAP are to be delivered together and are referred to throughout this document as "the proposed Project", unless specifically identified otherwise.

2.3 Project Rationale

Two trends are influencing the need to expand both short-term and long-term containerized shipping/handling capacity in the port. Trade of goods shipped in containers through Canada's west coast is increasing. In 2015, container terminals on the west coast of Canada (including Vancouver and Prince Rupert) handled more than 3.8 million TEUs, or twenty-foot equivalent unit containers, with nearly 3.1 million TEUs handled by container terminals in the Port of Vancouver. The Port of Vancouver's container terminals (Vanterm, Deltaport, Fraser Surrey Docks, and Centerm) are currently able to handle an estimated 3.9 million TEU/year.

Independent forecasts completed for the port authority by international experts in transportation and trade indicate that container traffic through the west coast of Canada will increase by approximately 3.5 million TEUs by 2035. This growth is driven primarily by the growing demand between Canada and Asian markets for imported products such as clothing, food, electronics, and manufacturing inputs, such as car parts, and exports of Canadian products such as pulp, paper, lumber and specialty grains.

Along with increasing demand, the container shipping industry is moving towards the use of larger vessels. The Lions Gate Bridge at the entrance to Burrard Inlet limits the size of vessels that can enter the Inner Harbour, with vessels up to 14,000 TEUs in capacity expected to call at Centerm in the future regardless of the proposed expansion.

Increasing the capacity and efficiency of existing container terminals like Centerm would ensure timely delivery of required marine and land-based infrastructure to meet the predicted growth in the container sector. Sustainable capacity is when the terminal is operating efficiently at high throughput and under ideal operating conditions. Maximum capacity is when the terminal achieves maximum throughput; however, it stretches the effectiveness of operations and equipment and is generally only achieved for short periods of time. Terminal operating volumes vary widely depending on the goods moving through the terminal. Larger terminals attract larger ships, which in turn exchange larger volumes of containers.

The proposed Project has been designed using the proposed sustainable annual capacity (considered to be 85 percent of maximum annual capacity), as this represents the typical peak operating conditions. The current sustainable container capacity at Centerm is approximately 750,000 TEU/year (maximum capacity 900,000 TEU/year) and its 646 m berth can accommodate two small- or medium-sized vessels simultaneously (i.e., two vessels of up to 6,000 TEUs or a single vessel 9,000 TEUs or larger). The proposed Project would increase Centerm's container capacity by approximately two-thirds to a sustainable capacity of 1.3 million TEU/year (maximum capacity of 1.5 million TEU/year) and continue to accommodate larger vessels of up to 14,000 TEUs.

When the largest vessels are berthed at Centerm on berth 6, the stern of the vessel overhangs the end of the wharf and utilizes the mooring dolphin to tie up. As a result, containers on the stern of the vessels in this position cannot be accessed. Accessing these containers requires the vessel to be repositioned before loading activities can be completed. The extension of the wharf allows containers to be accessed on all sections of a vessel without repositioning.

The mooring layout for container vessels at the Centerm berths does not change as a result of the proposed Project. The current mooring dolphin is replaced by a bollard located on the western end of the extended wharf.

Table 1 outlines the existing and proposed terminal capacities.

Table 1: Terminal Capacity

	Existing Terminal	Proposed Expansion
Sustainable Annual Capacity	750,000 TEU/year	1.3 million TEU/year
Maximum Annual Capacity	900,000 TEU/year	1.5 million TEU/year
Berth Length	646 m (excluding mooring dolphin 76m beyond the end of the wharf)	724m
Vessels at Berth	two vessels of up to 6,000 TEUs or a single vessel 9,000 to 14,000 TEUs	two vessels of up to 6,000 TEUs or a single vessel 9,000 to 14,000 TEUs

2.4 Project Description

2.4.1 Proposed Project Components

The proposed improvements included in the proposed Project are summarized in Table 2a and b, and indicated on Figure 1. The proposed Project includes expansion and upgrades to the Site (On-Terminal), as well as improvements to adjacent road and rail access that are within the port authority's transportation corridor (Off-Terminal). All of the proposed Project components are within the port authority's jurisdiction, with the exception of the Heatley Avenue Overpass.

Table 2a: Proposed Project Components (On-Terminal)

Centerm Expansion Project (On-Terminal Improvements)	
1. Western Expansion of Centerm	Extending the container yard and intermodal yard westward. Includes a larger wharf structure, dredging, rock dykes, and earth fill.
2. Eastern Expansion of Centerm	Additional container storage, new truck gate, parking and new operations building. Includes rehabilitation of existing Ballantyne Pier with rock dykes and earth fill.
3. Expansion of the Intermodal Yard	Expansion of intermodal yard through addition of fifth rail track and rail track extensions to the west and east.
4. Reconfiguration of the Container Yard	Increased capacity and efficiency for container yard operations, including space for loaded containers, empties, and refrigerated container stacks.
5. Modernize Truck Gate System	Reconstruction of the terminal entrance and exit gates using updated gate technologies to increase container truck throughput.
6. New Container Operations Facility Building and Parking	Repurposing the vacant Ballantyne Cruise Terminal building into a new operations and administration building with associated employee parking.

Centerm Expansion Project (On-Terminal Improvements)	
7. Removal of the Heatley Avenue Overpass	Removal of this overpass to accommodate the eastern expansion of the intermodal yard.

Table 2b: Proposed Project Components (Off-Terminal)

South Shore Access Project (Off-Terminal Improvements)	
8. Waterfront Road Extension and VACS Gates	Extension of Waterfront Road to Centennial Road, providing a connection to the Main Street overpass and creating a continuous roadway through port lands between downtown Vancouver and Highway 1. Installation of new Vehicle Access Control Gates on Waterfront Road under Main Street Overpass
9. Centennial Road Overpass	A grade separated access to the Centerm terminal entrance area, from Clark Drive via Centennial Road. The overpass would cross multiple at-grade rail crossings. Container trucks would continue to access the terminal via Centennial Road from port access points at Clark Drive and Commissioner Street.

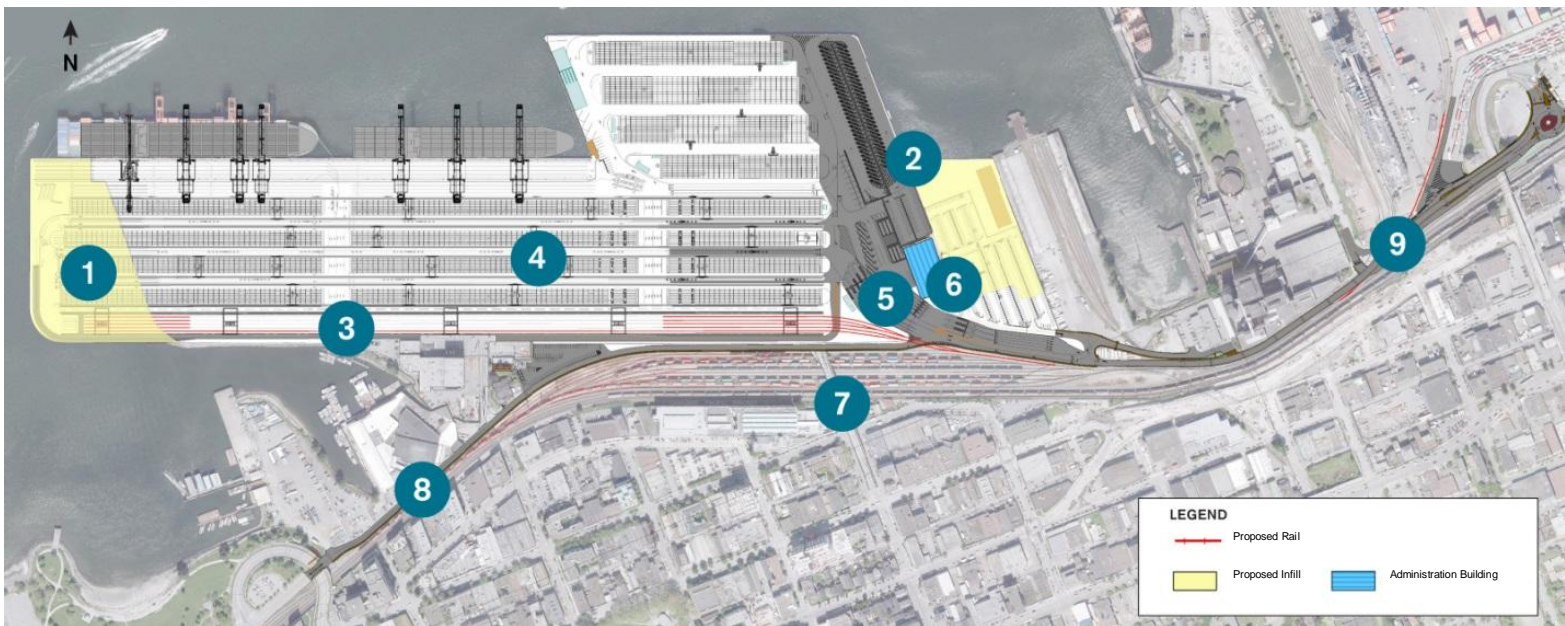


Figure 1: Project Site Plan Overview

2.4.2 Centerm Expansion Project (CEP) – On-Terminal Improvements

The proposed Project consists of terminal improvements to increase Centerm’s container capacity by approximately two-thirds to a maximum annual capacity of 1.5 million TEUs, and an annual sustainable capacity of 1.3 million TEUs. This increased capacity would be achieved through the following key changes to the Terminal:

- Increase in berth length;
- Expansion of the intermodal yard;
- Optimization and expansion of the container yard;
- New terminal entrance infrastructure;
- Addition of five rail-mounted gantries;
- Replacement of two quay cranes (following the addition of a seventh quay crane in 2016 as part of a separate project being undertaken by DPWV).

The expanded terminal operations would be substantially similar to the current Centerm operations except that the intermodal yard would be converted to an electrified cantilever rail-mounted gantry operation and expanded through the addition of a fifth rail track and rail track extensions to the west and east.

The proposed Project would include the following:

Western Expansion of Centerm

- Extension of the Centerm Wharf (Berth 6) by approximately 78 m (256 feet [ft]) including fendering systems, mooring bollards and quay crane rails. The mooring dolphin that is currently located approximately 76 m beyond the west end of the berth would be removed to accommodate this western extension of the berth;
- Replacement of two quay cranes;
- Expansion of the container yard westwards, creating 2.9 ha of reclaimed land (infilling 4.2 ha of Burrard Inlet), extending the existing container stack arrangement. Includes:
 - Dredging (under the caisson and perimeter dyke) of approximately 235,000 cubic metres (cu.m.) (8.3 million cubic feet [cu.ft.]);
 - Marine infilling of approximately 540,000 cu.m (19.1 million cu.ft.); and
 - Perimeter dykes.
- Dredging approximately 7,000 cu.m. (247,222 cu.ft.) between Centerm and Canada Place cruise berth to improve manoeuvring channel.

Eastern Expansion of Centerm

- Demolition of the Ballantyne Pier pulp shed and Cruise terminal extension constructed in the 1990's;
- Demolition of the Ballantyne Pier pile and deck structure, excluding the section on which the Ballantyne Cruise Terminal is situated. Replacement with a perimeter dyke and marine filling (approx. 1.7 ha of land);
- Demolition of the marginal wharf (south end of the Ballantyne Bight) and Burrard Slip west pile and deck structure;
- Expansion of the terminal to the east creating 2.0 ha of reclaimed land (infilling 4.0 ha of Burrard Inlet), by filling the Ballantyne Bight. Includes:
 - Dredging (under the perimeter dyke footprint) of approximately 155,000 cu.m. (5.4 million cu.ft.);
 - Marine infilling of approximately 540,000 cu.m (19.1 million cu.ft.); and
 - Perimeter dykes.
- Provision of a warehouse structure for equipment storage, approximately 1,600 square metres (sq.m). (17,200 square feet [sq.ft.]).

Expansion of the Intermodal Yard

- Extension of the intermodal rail tracks to 914m (3,000ft) each by adding 152m (500ft) onto the western end of the tracks, and 152m (500ft) onto the eastern end of the tracks;
- Reconfiguration of the rail track leads linking the intermodal rail tracks to the CN Rail yard;
- Installation of an additional track south of the existing tracks to increase the intermodal tracks to a total of five tracks;
- Installation of up to five electrified rail-mounted gantry cranes in the intermodal yard;
- Installation of Optical Character Recognition (OCR) on rail tracks approaching the intermodal yard.

Reconfiguration of the Container Yard

- Removal of four lunchroom trailers located across the terminal;
- Replacement of the lunchroom trailer located at the eastern end of the container ship berths;
- Addition of 12 tractor-trailer units, and two container handlers for on-terminal container movement;

- Reconfiguration of the container yard in the northeast and southeast quadrants including extending container stacks parallel to intermodal tracks, and establishing parallel container stacks in the northeast quadrant;
- Expansion of the existing high-mast lighting on the terminal with LED fixtures;
- Relocation of the 11 existing refrigerated container (reefer) towers to the parallel container stacks in the south-east quadrant, plus seven additional reefer towers;
- Installation of utilities and electrical infrastructure altered as a result of the expanded container yard footprint.
 - Alterations to storm drainage networks;
 - Alterations to power, security and communications infrastructure; and
 - Installation of additional high mast lighting towers across the Site.

Modernize Truck Gate System

- Provision of a new terminal entrance gate including five inbound and three outbound gates complete with lift arms and truck interfaces;
- Provision of new pre-gate infrastructure including OCR portals. Three lanes inbound, and four lanes outbound.
- Provision of initial terminal staging (10 stalls) for short-term vehicle stoppages.
- Stalls for terminal vehicles adjacent to Container Operations Facility
 - 63 stalls for internal transfer vehicles;
 - 70 stalls for terminal support vehicles;
 - Three replacement container handlers;
 - Internal transfer vehicles fleet increased to 70 vehicles.

New Container Operations Facility Building and Parking

- Renovation and repurposing of the Ballantyne Cruise Terminal into a new operations and administration facility for the terminal;
- Increase the existing 2,800 sq.m. (30,140 sq.ft) floorplate by approximately 1,200 sq.m. (12,920 sq. ft.);
- Provision of 520 employee parking stalls adjacent to the new operations and administration facility, including at least 20 electric vehicle charging stalls. Provision of at least 12 bicycle racks adjacent to the Container Operations Facility;
- Provision of 100 employee parking stalls south of the terminal for terminal maintenance staff use.

Removal of Heatley Avenue Overpass

- Demolition of the Heatley Avenue Overpass and adjacent DPWV Main Office to allow eastward expansion of intermodal rail tracks.

2.4.3 South Shore Access Project (SSAP) – Off-Terminal Works

Spanning the length of the port authority's South Shore Trade Area on Burrard Inlet, the South Shore transportation network connects the terminals and facilities with the road and rail networks that link these industries to Greater Vancouver and beyond. The south shore roadway between Clark Drive and Centennial Road is subject to many heavily used at-grade rail crossings, particularly in the Rogers Street area. These rail events impact traffic on the south shore multiple times per day, introducing delays of up to 30 minutes at a time.

The SSAP would provide improvements to the road and rail networks serving the existing terminals on the corridor to accommodate the predicted increases in containerized goods movement. With the removal of the Heatley Avenue Overpass (a grade-separated access point into the port area) to facilitate the expansion of the Centerm intermodal yard, the SSAP introduces the proposed Centennial Road Overpass to provide an alternative

grade-separated route via the Clark Drive Overpass. This removes the impact of rail crossings to road traffic, creating improved journey reliability through this section of the south shore.

All existing connectivity to the roadway is to be maintained with localized diversions to intersections, and a roundabout at the intersection of Clark Drive and Stewart Street to maintain Rogers Street traffic access to the entire south shore.

The SSAP also includes a connection between Centennial Road and the existing East Waterfront Road, completing the port authority's long term objective of providing a contiguous port road along the entire south shore with a minimum of two traffic lanes with pedestrian connectivity.

The existing section of Waterfront Road between Main Street and Dunlevy Avenue would to be upgraded to establish a consistent roadway cross section in this area, including pedestrian sidewalk. This would include the reconstruction of the Canfisco boiler house complete with relocation or replacement of the boilers contained within. At the western extent of the south shore port area, a new Vehicle Access Control (VAC) gate would be introduced to manage access to the port lands, similar to existing VACs gates at Clark Drive and Commissioner Street.

The SSAP would provide the following changes to the road network in the vicinity of Centerm:

Waterfront Road Extension and VACS Gates

- Provision of an extension of Waterfront Road East between Dunlevy Avenue and Centennial Road, as a two-lane roadway, complete with a pedestrian sidewalk;
- Realignment of rail tracks in the CN Rail yard south of the terminal;
- Upgrading of existing Waterfront Road East between Main Street and Dunlevy Avenue, including alterations to Canfisco property;
- Provision of a new Vehicle Access and Control System (VACS) located on Waterfront Road, under the Main Street Overpass.
- Alterations and upgrades to utilities including:
 - Power, security and communications
 - Stormwater infrastructure
 - Water mains and hydrants
 - Sanitary sewer realignment

Centennial Road Overpass

- A road overpass between Clark Drive and Centennial Road to separate road and rail movements;
- A roundabout at the intersection of Stewart Street and Clark Drive.
- Alterations and upgrades to utilities including:
 - Power, security and communications
 - Stormwater infrastructure
 - Water mains and hydrants
 - Sanitary sewer realignment

2.5 Terminal Operations

Centerm is a facility where cargo containers are transshipped between container ships and land vehicles, including trains or trucks. Container traffic is generally two-way; meaning that cargo containers are transferred from container ship to land vehicles and from land vehicles to container ships; however, containers are also exchanged between truck and rail. Centerm functions as the hub for loading and unloading of containers, storage of containers awaiting shipment, and directing containers to the appropriate mode of transportation.

Centerm currently operates 24 hours/day, seven days per week, using three shifts per day. The night shift is typically lower staffed unless there is a ship in dock or a train needs to be loaded/unloaded. Trucks service Centerm for typically 18 hours/day, from 7 a.m. to 1 a.m., five days per week (Monday to Friday) with occasional truck service on Saturdays. These hours of operation would not change with the proposed terminal expansion.

After the expansion, an average of two trains would service Centerm each day. These trains would each carry up to 500 containers (800 TEUs), and result in approximately 2,000 containers (3,200 TEUs) moving (both inbound and outbound) through the terminal by rail each day.

The number of trucks entering Centerm is highly variable, and dependant on the shipping requirements of the containers being moved. Modelling conducted to support the design of the gate entrance estimated up to 2,000 TEUs move through the gate (both inbound and outbound) on a peak day during operation of the proposed Project.

In total Centerm would be capable of handling in excess of 3,000 container moves (5,000 TEUs) per day.

The various components and activities associated with operation of the existing terminal and proposed Project are summarized in Table 3.

While the port authority advocates no-idling as part of its Truck Licencing System, there are many short-term stop-and-go activities associated with handling container movement. Therefore, the modelling conducted for the proposed Project assumed that on-road vehicles associated with the terminal idle for up to an hour per day during their operation.

Table 3: Operational Components and Activities

Equipment/Activity Description		Existing Equipment Numbers	Proposed Equipment Numbers
Marine	Ocean going vessels – auxiliary engine	Total vessel calls up to per year: 240 (approximately 5 per week)	Total vessel calls up to per year: 300 (approximately 6 per week)
Rail	National rail, line haul	1-2 trains per day – 53 containers/hour	2-3 trains per day – 135 containers/hour
	National rail, switch	1-2 switch	2-3 switch
On-Road	Heavy commercial truck, highway on terminal grounds	59,130 vehicle idling hours on-site per year 354,780 km travelled on-site per year	98,115 vehicle idling hours on-site per year 588,935 km travelled on-site per year
	Terminal support vehicles (pickup trucks)	25,550 vehicle idling hours on-site per year 766,500 km travelled on-site per year	25,550 vehicle idling hours on-site per year 1,022,000 km travelled on-site per year
Non-Road: Container Handling Equipment	Top pick (FCH – Full Container Handlers)	Loaders: Fantoozi or Hyster 10 total --> 6 used at once Includes 6 Tier 4, 3 Tier 2, and 1 Tier 1 engines	Loaders: Fantoozi or Hyster 10 total --> 8 used at once Includes 6 Tier 4, 3 Tier 2, and 1 Tier 1 engines
	Rail-mounted gantry	Currently not used on-site	Up to 5 electric Replaces 2 diesel RTGs from the rail yard into the intermodal yard
	Rubber-tired gantry (RTG)	19 RTGs in fleet --> 14 operated at once (including 2 in the intermodal yard) 16 Noell RTG Tier 2 engines 3 ZPMC Tier 3 engines	19 RTGs in fleet --> 16 operated at once 16 Noell RTG Tier 2 engines 3 ZPMC Tier 3 engines
	Quay crane	6 electric cranes -->Typically only 4 ever in use at once. A seventh crane is expected to be in service in late 2016/early 2017 (separate DPWV project).	7 electric cranes -->Typically only 4 ever in use at once. 2 existing cranes would be replaced as part of the proposed Project.
	Forklift	Selection of seldom used forklifts	Selection of seldom used forklifts
	Shunt trucks (also known as internal transfer vehicles)	60 trucks in fleet	70 trucks in fleet
Terminal	Container processing (TEU per year)	2015 Actual: 552,000 Sustainable: 750,000 Maximum: 900,000	Sustainable: 1,300,000 Maximum: 1,500,000

2.5.1 Marine Operations

Vessel calls to the Terminal are predicted to gradually increase after the completion of the proposed Project, from current levels of approximately five calls per week to approximately six calls per week when operating at full capacity. This represents an increase of approximately one vessel per week. The increased container handling capacity of the proposed Project is mostly attributable to the increase in the size of vessels that can be accommodated (from 8,000 to 10,000 TEUs and up to 14,000 TEUs) and the efficiencies that would be realized as a result of the expanded container yard and intermodal yard.

Vessels pass through the First Narrows at the Lions Gate Bridge from Howe Sound. As container ships are not highly weather-restricted for their loading/unloading operations, they proceed directly to the berth at Centerm. Tugs are generally used to guide vessels to berth. It is expected that at times the berth may be occupied by another vessel (often either stricken or running behind schedule), and therefore, the approaching vessel may need to proceed to an anchorage before calling at the terminal. Vessels stay at the berth to perform loading/unloading operations for an average of one to two days, depending on the cargo to be transferred. Once these are completed, the vessel will head to its next port of call.

Standard procedure is to cycle ballast water at sea to limit transfer of marine life from one port to another.

2.5.2 Berth Operations

Containers are moved between the container ship and quay using electrically powered quay cranes. The proposed design retains the existing effective mooring length (from the mooring dolphin to the east end of Berth 5), introducing additional berth length in the area currently occupied by the Centerm mooring dolphin. This would increase the length of the workable berth on which quay cranes can operate without increasing the vessel mooring length. This also removes any need to reposition vessels mid-load cycle to access containers that would otherwise be unreachable.

Currently six quay cranes operate the berth, with a seventh crane expected to be in operation in late 2016/early 2017 (a separate project to be implemented by DPWV). Following completion of the proposed Project, there would be seven quay cranes in operation, with two of the existing cranes being replaced as part of the proposed Project.

Containers are moved between the berth and the container yard using internal transfer vehicles. These are dedicated tractor/trailer vehicles that move containers between locations throughout Centerm.

2.5.3 Container Yard

The container yard is used to store cargo containers between passage on different modes of transport. For example, a container arriving at Centerm onboard a vessel would be moved to the container yard for storage before subsequently departing Centerm via either rail or road. All containers passing through Centerm spend some time in storage at the container yard. The container yard is divided into two main areas. The primary import/export container stacks that run parallel to the berth and intermodal yard are used for short-term storage. The longer term and empty container storage is situated in the northern section of the container yard.

Containers are handled by either rubber-tired gantry cranes or container handling equipment, such as top picks, depending on where they are situated in the yard. The rubber-tired gantry cranes operate over the primary

import/export container stacks and the longer term and empty container storage is operated by top picks. The container yard also accommodates refrigerated containers, storing them in dedicated stacks that provide a power connection to maintain refrigeration unit operation; these are located in the import/export.

The container yard layout proposed under the proposed Project would maintain the same operational processes that exist today, and would introduce greater capacity within the container yard. The refrigerated containers would be moved to locations within extended primary import/export stacks paralleling the expanded intermodal yard. This would allow the northern section of the yard to be densified for empties and longer term storage of containers.

2.5.4 Rail Operations

The intermodal yard is where containers are loaded on and off rail cars for wider distribution. The intermodal yard will receive up to 3,658 m (12,000 ft.) long unit trains that transport goods to destinations across Canada and beyond. An average of two trains will arrive at Centerm each day; each train will carry up to 500 containers (800 TEUs).

The intermodal yard will have five 914 m (3,000 ft.) rail tracks. The proposed design would increase the length of the four existing tracks from 607 m (1,993 ft.) to 914 m (3,000 ft.), add a fifth track, and replaces the two current rubber-tired gantries with five cantilevered rail-mounted gantries. The rail-mounted gantries and increased rail tracks to accommodate longer trains would more than double the productivity of the intermodal yard.

When a train arrives at the terminal, the rail cars are staged in the adjacent rail yard south of Centerm until the intermodal yard is ready to receive the rail cars. This allows the engine to be repositioned at the rear of the train to push the cars into the terminal. Once the intermodal yard is ready to receive, sets of rail cars are then moved from the rail yard to the intermodal yard. When trains depart the terminal, the engine will pull the cars directly from the intermodal yard, maneuvering once each set of rail cars is attached to capture the next set of cars.

2.5.5 Truck Gate

Arriving trucks are required to hold a valid appointment with Centerm prior to arrival at the terminal. This appointment includes the hour of arrival, vehicle, and load to be delivered (or collected). Arriving trucks pass through an OCR portal that scans the container and records its details. At the subsequent interface pedestal, trucks that do not meet these arrival criteria or have an incorrect container are rejected from the terminal gates back onto the port road network where they will travel to the staging lot at McGill before contacting their firm to rectify any issues.

If a truck passes the appointment criteria, it proceeds to the main in-gate where it is processed and the driver is given a ticket with instructions on where to proceed. Directly beyond the main in-gate is a small staging area where drivers can conduct pin unlocking activities to allow the container to be lifted from the chassis (the container is locked on for road travel). This staging area also serves as a short-term holding area should unforeseen terminal operations necessitate a delay in servicing a truck movement.

Outbound trucks pass through an OCR portal to confirm the outbound container details. If there is a problem with the truck, container, or its contents, the truck is diverted to trouble parking stalls where issues can be rectified prior to the truck departing the terminal.

2.6 Construction Activities

2.6.1 Construction Hours

Construction activities would generally conform to established standard port authority construction hours of 7:00 a.m. to 8:00 p.m. from Monday to Saturday, excluding Sundays and holidays. However, there are two proposed Project elements that are anticipated to occur on a 24-hour basis: marine construction and the Centennial Road Overpass.

Substantial marine works to facilitate the proposed Project include dredging and subsequent marine reclamation work. These works are expected to take up to six months depending on the final volume that would need to be dredged. The published in water work windows set by Fisheries and Oceans Canada (DFO) for Burrard Inlet to protect marine species are from August 16 to February 28. The construction schedule for in water works will comply with timing restrictions that will be established by DFO in the Fisheries Act Authorization for the proposed Project. With consideration to overall proposed Project schedule, and target completion in 2020, these marine works will need to be conducted on a 24 hour per day basis during available working windows. A shorter work day would result in dredging (and associated backfilling) stretching over multiple years in order to respect work windows or would require work during the restricted work windows.

Situated on a narrow road corridor, the construction of the Centennial Road Overpass would impact traffic movement along the south shore port area, particularly truck traffic serving Centerm. To minimize disruption to traffic during the terminal operating hours (7am to 1am, Monday to Friday) when traffic flows on the south shore are busy, key activities that would cause a substantial amount of disruption such as lifting steel girders, foundation works, repositioning equipment, and utility diversions are anticipated to be undertaken overnight and on weekends, extending the construction hours to 24 hours per day for these activities. Similarly, works to the rail tracks adjacent to the south shore roadway would be scheduled at times when the tracks are available, and train movements are at their minimum; this is expected to include evenings, nights and weekends.

2.6.2 Construction Considerations

Construction staging plans have been developed which consider the continued operation of the terminal during construction, other stakeholders and community impacts. In general, construction activities have been split into five distinct stages as shown and described on drawing 32-481-151 (sheets 1 to 5) provided in the **Supporting Documents**. The key constructability considerations that went into developing these construction staging plans include the following:

- a) The 9.4 m wide Centennial Road Overpass would be located above the existing 8 m wide road corridor and rail tracks on either side. The construction concept is to temporarily pave the Lantic tail track on the north side so that this corridor can be shared by Alliance Grain Terminal trains that utilize this track for switching rail cars and westbound container traffic bound for Centerm. Outside of regular business hours, when the terminal is closed to truck traffic at night and on weekends, Centennial Road would be completely closed to vehicle traffic to provide additional space for construction activities. Eastbound traffic, including container trucks leaving Centerm, would be diverted to Heatley Avenue Overpass until the Centennial Road Overpass is operational. Upon completion of the overpass, the Heatley Avenue Overpass would be demolished for the eastward extension of the Intermodal Yard and completion of the new truck exit gates.
- b) The new VACS gates and security fencing near Main Street must be operational before the Waterfront Road extension is opened to vehicles or pedestrians.

- c) Modifications to the Canfisco boiler house (to be made by the port authority under a separate contract to make room for the Waterfront Road extension) may only be made during the plant down-time from July 1 to February 28 each year.
- d) DFO typically restricts in-water work within the Burrard Inlet from March 1 to August 15 each year. All in-water works will be conducted in accordance with DFO requirements.
- e) The majority of the existing terminal buildings that will eventually be removed must remain as-is until the replacement Container Operations Facility is fully operational.
- f) Similarly, the existing lunchroom situated on the southern end of Berth 4 must remain as-is until the replacement structure is operational, or a temporary replacement is provided for the interim.
- g) The existing truck gate must remain operational until the new truck gate has been constructed and put into operation.
- h) Alternate longshoreman parking and covered operations storage space must be provided prior to demolition of the existing Shed 3 and Ballantyne Pier structure.
- i) Only one-third of the existing intermodal yard may be taken out of service at a time for construction of the new rail mounted gantry crane foundations, installation of the fifth track, and for the eastward intermodal yard extension.
- j) The existing mooring dolphin may be taken out of service for construction; the functionality of this mooring dolphin (i.e., tie-off for vessels) must be reinstated within 12 months of the out-of-service date.
- k) The current number of container slots and reefer slots must remain available at all times.
- l) Construction traffic will be tightly controlled to limit traffic on Main Street Overpass to limit disruption to surrounding residents and community. Construction traffic will be directed to use either the Heatley Avenue Overpass, Clark Street Overpass, or Commissioner Street entrance.
- m) Where practical, materials should be moved to/from the proposed Project by barge.

2.6.3 Schedule

The permitting and procurement stage is anticipated to begin in the latter part of 2016, and extend through 2017. Should the proposed Project be approved, construction is anticipated to commence in 2017 and be completed in 2020. The anticipated schedule for key project components is:

Marine Dredging and In-filling	3-6 month during the fall/winter of 2017 and 2018
Land Reclamation	12-18 months during 2018
Intermodal Yard works	approximately 2 years from late 2017
Container Yard alterations	6-9 months in late 2019
Container Operations Facility Building	approximately 2 years from late 2017
Truck Gates	6-9 months in early 2019
SSAP	approximately 2 years from late 2017

3. Consultation Requirements

A summary of the community engagement activities undertaken to date, and future engagement activities, is discussed in this section.

3.1 Community Engagement and Consultation

3.1.1 Overview

The Project Team acknowledges that while the proposed Project would provide local, regional and national benefits, there may be impacts to those that live, work or operate in and around the proposed Project area. In order to consider the impacts this proposed Project may have on the surrounding community, and in keeping with the requirements of the PER process, the Project Team is committed to transparency and seeking meaningful feedback from the public, stakeholders, and Aboriginal groups.

The Project Team's approach to public consultation is based on meaningful communication and open dialogue, working together to ensure the community, the environment, and the economy are all considered during proposed Project planning.

Consultation undertaken to date is based on the port authority's PER External Guidelines for Public Consultation (the Guidelines) for a Category D project. Additional engagement activities that meet the objectives of public participation for the proposed Project will also be implemented as the proposed Project goes through the permitting process.

3.1.2 Community Engagement and Consultation Objectives Approach

As the proposed Project has a likelihood of impacts during construction and operations and may also be of interest to the community, the Project Team is engaging with the public and will develop and implement a public consultation program that provides a variety of opportunities for the public to learn about the proposed Project and provide feedback.

The proposed Project is within the vicinity of:

- Several community associations and business improvement associations;
- First responders;
- City of Vancouver;
- Rail agencies;
- Businesses;
- Strata and other residences; and
- Tenants and landowners.

The public participation objectives of the proposed Project include the following:

- Demonstrate commitment to understanding community and stakeholder interests.
- Demonstrate transparency and that all feedback was considered.
- Build relationships and work with key influencers in the community, including all levels of government.

- Increase awareness of the benefits of the proposed Project and contributions made by DPWV and the port authority to the local economy and community.
- Increase awareness of the permitting process to build public confidence.

These objectives will be met by ensuring that all proposed Project communications will:

- Ensure community and stakeholder engagement and consultations reach a wide audience using grassroots techniques that are approachable to the local community and stakeholders.
- Provide clear and timely information about the proposed Project-related activities, and ensure efficient response to enquiries from the community, media, and other stakeholders.
- Consider all feedback and work with the Project Team to find opportunities to incorporate feedback to improve the proposed Project design by mitigating potential impacts to the community and stakeholders.
- Communicate clearly as to how feedback was considered in the proposed Project.

Public and stakeholder feedback has/will inform what, if any, additional mitigations or proposed Project modifications are required, as well as what the community amenity should be.

3.1.3 Summary of Community Engagement and Consultation to Date

In keeping with the PER Guidelines, a formal 20 business day preliminary comment period was undertaken during the Preliminary Review Phase of the proposed Project. The preliminary comment period took place between January 18 and February 12, 2016, with the objective to solicit early feedback from the community and stakeholders on the preliminary design of the proposed Project, scope of technical studies to be undertaken and ideas on a potential community amenity for inclusion in the scope of the proposed Project. Proposed Project materials, including a discussion guide and online feedback form were posted at porttalk.ca/centermexpansion.

Notification of opportunities to participate in the preliminary comment period included:

- Sending invitation emails and notification to approximately 150 stakeholders, identified by the Project Team, including suggestions from the City of Vancouver, to attend one of two small group meetings;
- Advertising in the *Vancouver Sun* and *Vancouver Courier*;
- Sending tweets from @PortMetroVan to notify the public about the preliminary comment period;
- Sending postcards to 6,200 households and businesses in the area near Centerm;
- Hosting a dedicated engagement website (porttalk.ca/centermexpansion) on which was posted all materials, including a discussion guide and online feedback form.

Feedback was received from 72 participants, and while the majority of respondents indicated they strongly or somewhat agreed with the scope of studies, concerns focused on the possibility of impacts to:

- traffic in downtown Vancouver and on local roads;
- noise from rail and truck traffic;
- CRAB Park at Portside;
- View, water quality, and air quality impacts;
- heritage façade of the Ballantyne Cruise Terminal building;
- trips by foot, car, and transit in the area.

With respect to a community amenity, the majority of respondents were very interested in the categories of pedestrian, cycling and transportation options, recreational/park improvements, and environmental improvements. Specific community amenity suggestions included requests for bike lanes, improvements to CRAB Park at Portside, and preservation of heritage buildings.

More information on the feedback received as part of the preliminary comment period, is available in the Engagement Summary Report, provided as a **Supporting Document**. This feedback was also considered in finalizing the scope of technical and environmental studies, and in further design development of the proposed

Project. The Consideration Report, provided as a **Supporting Document**, documents how feedback was considered. Both documents were also made available to the public at porttalk.ca/centermexpansion.

In August, 2016, the Project Team hosted three informal drop-in sessions at local cafes in the Downtown Eastside to update community members and stakeholders on the current status of the proposed Project. Over 80 people attended. The Project Team also provided information about how they responded to the feedback received during the preliminary comment period and general information such as a proposed Project overview, maps, and view-scape rendering of the before and after pictures viewed from CRAB Park at Portside. The summer engagement materials are provided as a **Supporting Document**. All documents are currently available to the public at portvancouver.com/centermexpansion.

In addition to the preliminary comment period, the Project Team met with a number of tenants and key stakeholders between November 2015 and March 2016 to provide an overview of the proposed Project and identify issues of importance to the meeting participants. Meetings were held with:

- City of Vancouver
- Southern Railway of BC
- East Vancouver Port Lands (EVPL) Liaison Group
- Alliance Grain Terminals
- Canadian Pacific Rail
- NAV CANADA
- Lantic (Rogers Sugar)
- GCT Vanterm
- City of Vancouver's Active Transportation Policy Committee
- Canadian Fishing Company
- Helijet
- Marine Mammal Rescue
- Canadian National Railway
- TransLink and SeaBus
- Mission to Seafarer's
- Tymac

3.1.4 Planned Community Engagement and Consultation

The scope of communications in the next stage of consultation will be outlined in a comprehensive public consultation plan that will be developed by the Project Team to suit the interests of the key project stakeholders and the requirements of the PER process. The plan will follow best practices established by the International Association of Public Participation (IAP2) to inform, consult, involve, and collaborate where possible with the community and stakeholders on the proposed Project. The plan, which will be subject to review and approval by the PER team, will outline public participation and communication activities that provide the public with opportunities to provide feedback, details of the proposed Project, results of the completed technical studies, and any proposed mitigations and potential community benefits.

PER requirements for the project include a face-to-face meeting and online presence during a 20 business day comment period. Given the high level of interest and concerns raised by the community and stakeholders about the preliminary engagement process, the Project Team is committed to providing multiple opportunities for feedback and meaningful dialogue on both the potential impacts and benefits of the proposed Project throughout the permitting phase. In particular, the grassroots approach to engagement will focus on local engagement with multiple opportunities to provide comment to various audiences. This will include weekday and weekend open houses, and multiple stakeholder consultations. Traditional means of notification, such as newspaper advertisements, mail-drops, website, and emails, will be augmented by neighbourhood postering, social media and pro-active media outreach.

The Project Team proposes to conduct two rounds of public consultation during the application review phase. This includes an initial round of consultation on the proposed Project and completed studies. A second round of consultation will also be conducted with information on how the Project Team responded to comments received and proposed mitigations for the proposed Project.

3.1.5 Draft Construction Communications Plan

As the project progresses through the application review phase and construction activities are refined, the Project Team will be drafting a Construction Communications Plan that will outline all communication and engagement activities with the public and stakeholders during the construction phase. The draft Construction Communications Plan will outline multiple opportunities for engagement including face-to-face meetings, website updates, emails, and mail-outs of construction notices to keep interested parties informed about all construction activities. The draft Construction Communications Plan will be submitted to PER for review and approval after the first round of consultation on the proposed Project. This is to ensure that the Project Team can incorporate feedback from consultation and more refined construction activities and timelines into the draft plan.

3.2 Aboriginal Engagement and Consultation

3.2.1 Overview

The port authority manages lands and waters that intersect the asserted and established traditional territories and treaty lands of several Coast Salish First Nations. The port authority recognizes the history and contemporary interests of Aboriginal Peoples and works to establish and maintain productive relationships through Aboriginal consultation, regular communication, and a desire to engage in mutually beneficial opportunities.

The Project Team is following the port authority's Aboriginal consultation approach, which is based upon the Government of Canada's *Updated Guidelines for Federal Officials to Fulfill the Duty to Consult*. In addition, the port authority follows its own guiding principles for consultation:

- The port authority acknowledges the treaty lands and asserted traditional territories intersecting the lands and waters managed by the port authority.
- The port authority recognizes that Aboriginal consultation is different and separate from public consultation.
- The port authority enters all consultation processes in good faith.
- When the duty to consult arises, the port authority consults before decisions are made.
- When possible, the port authority coordinates consultation with other agencies.
- The port authority strives for one point of contact.
- The port authority's consultation processes seek to be clear, open, and honest.
- The port authority's consultation procedures are forward-looking.

The proposed Project falls within the vicinity or lies within the asserted traditional territory of the following Aboriginal groups:

- Tsleil-Waututh Nation
- Squamish Nation
- Musqueam Indian Band
- Sto:lo Nation
- Cowichan Tribes
- Lake Cowichan First Nation
- Penelakut Tribe

- Halalt First Nation
- Stz'uminus First Nation
- Lyackson First Nation

The Project Team is consulting with all of these Aboriginal groups regarding the proposed Project.

3.2.2 Engagement and Consultation Objectives and Approach

The Crown has a legal duty to consult with Aboriginal groups in respect of decisions by the Crown that have an impact or infringement upon Aboriginal land, rights, and entitlements as protected by the *Constitution Act* (Section 35). The port authority has been delegated authority to manage federal lands by the CMA, and therefore conducts consultation on behalf of the Crown. For more information, please refer to the port authority's *Aboriginal Consultation – Information for Applicants* guideline available on the port authority's website.

As outlined in the port authority's *Project and Environmental Review: Aboriginal Consultation – Information for Applicants*, Aboriginal consultation is required where an Aboriginal group has asserted or established Aboriginal or treaty rights in proximity to the proposed Project and the proposed Project has the potential to adversely impact those rights. The port authority is committed to ensuring consultation with potentially impacted Aboriginal groups not only meets legal requirements, as guided by these criteria, but also provides a meaningful opportunity for Aboriginal groups to participate in key phases of the proposed Project.

The objectives of Aboriginal consultation in support of the proposed Project are:

- Engage identified Aboriginal groups during proposed Project development to determine potential impacts of the proposed Project on their asserted or established Aboriginal or treaty rights;
- Provide opportunities for identified Aboriginal groups' involvement in proposed Project development activities such as archaeological studies, where appropriate;
- Provide updates and share information about proposed Project development activities as they become available, including environmental studies documents;
- Work with identified Aboriginal groups to determine appropriate mitigation of proposed Project impacts where required;
- Explore opportunities for identified Aboriginal groups to share in the economic and social benefits of the proposed Project, through avenues such as employment and training;
- Provide information to the Project Team with respect to issues raised by identified Aboriginal groups and in the development of responses to enquiries; and
- Satisfy and document any legal requirements delegated from the Crown to ensure consultation requirements have been met.

3.2.3 Summary of Engagement and Consultation to Date

In late 2015, the Project Team initiated engagement and consultation with interested Aboriginal groups regarding the proposed Project. This included the proposed Project components and activities, environmental studies, potential changes to the environment related to the proposed Project, and potential impacts of the proposed Project on Aboriginal groups' ability to exercise asserted or established Aboriginal or treaty rights and related interests.

Consultation activities during the initial project development included a notification letter and follow-up activities; provision of information regarding the project and environmental studies; and meetings with interested Aboriginal groups to provide an overview of the project, and to receive feedback related to conceptual design, potential impacts and/or concerns, proposed environmental studies, and development of mitigation.

The Project Team provided Aboriginal groups with proposed Project-related information and updates by e-mail, and alerted them when new information was added to the website. The Project Team also provided Aboriginal groups with the Centerm Discussion Guide, which was primarily designed to support public consultation for the proposed Project but contains general and technical background information about the proposed Project that is relevant to consultation with Aboriginal groups. In sharing this document, the Project Team offered to meet with Aboriginal groups to walk through the Discussion Guide and will continue to share relevant proposed Project related documents from the Public Consultation Program.

Key issues and interests raised to date by Aboriginal groups throughout the initial engagement and consultation process are identified as follows:

- Proposed Project storm water, surface water systems, and potential runoff, including concerns with respect to water quality and quantity going into the harbour;
- Potential proposed Project-related impacts to archaeological resources, including interest in archaeological monitoring and chance find protocols;
- Potential proposed Project-related increases in marine shipping and potential impacts to waterways and other marine users;
- Potential proposed Project-related increases in traffic on land;
- Potential proposed Project-related impacts to air quality, including concern regarding potential accidental release of hazardous substances;
- Potential proposed Project-related impacts to sedimentation;
- Potential proposed Project-related impacts to current use of lands and resources for traditional purposes, and the ability to exercise asserted or established Aboriginal rights or interests;
- Potential environmental impacts associated with an increase in the proposed Project;
- Potential impacts associated with the quality of materials used for infill of the proposed Project;
- Potential impacts associated with the quality of dredged materials and disposal at sea;
- Potential cumulative impacts to marine mammals in the Burrard Inlet;
- Potential cumulative impacts to Aboriginal interests in the Burrard Inlet, such as fishing, gathering, and cultural activities;
- Potential for the proposed Project to influence environmental initiatives, such as monitoring and restoration plans for the Burrard Inlet;
- Potential accidents or malfunctions resulting from the proposed Project, and interest in emergency management procedures;
- Request for funding to support participation and gathering of traditional use information and Traditional Ecological Knowledge (TEK);
- Interest in environmental certification standards sought for the proposed Project; and
- Questions and concerns regarding the scope of the assessment, consultation, and the review process.

Aboriginal groups have also expressed an interest in potential opportunities to benefit from the proposed Project, including training and employment. In response to this interest and to share information on the expected construction-related contracting requirements, the Project Team provided Aboriginal groups with a list of sub-contracting work typical of projects like the proposed Project.

3.2.4 Planned Engagement and Consultation

As the proposed Project advances, the port authority will continue to consult with Aboriginal groups to review the Environmental Studies Report and related environmental studies. The port authority will work with Aboriginal groups to identify potential environmental effects from the proposed Project, potential impacts on their ability to exercise asserted Aboriginal or Treaty rights and related interests, and potential mitigation.

The port authority will continue to share proposed Project related information with Aboriginal groups, and to discuss and respond to questions and issues and concerns; and will explore potential opportunities for Aboriginal groups to benefit from the proposed Project, including, but not limited to, possible opportunities related to employment or training.

Consultation as the proposed Project advances will remain consistent with the objectives listed in Section 3.2.2. The Project Team will document how consultation commitments have been met, how potential project impacts have been addressed, and what mitigation or accommodation has been provided.

4. Studies and Reports

The proposed Project is subject to review and approval by the port authority under the PER process before it can proceed. Studies, plans, and reports have been prepared to identify and characterize the potential environmental effects and other impacts to the local area, environment, and transportation networks associated with the proposed Project, to support the port authority’s review under the PER process. These studies, plans, and reports are listed in Table 4 along with a brief outline of their contents.

Table 4: Completed Studies, Plans, and Reports

Study Title	Contents
Alternative Siting Report	<ul style="list-style-type: none"> · Discussion on the rationale for the Centerm Expansion Project layout and alternatives considered.
View and Shade Study	<ul style="list-style-type: none"> · View and Shade Impact Assessment
Project Energy Study	<ul style="list-style-type: none"> · Energy Supply · Electrical Consumption
Transportation Impact Studies	<ul style="list-style-type: none"> · Land Traffic Impact Study · South Shore Emergency Access Study · Marine Transportation Impact Study <ul style="list-style-type: none"> ○ includes Cruise Ship Berthing Simulation Study · Air Transportation Impact Study · Terminal Rail Operating Plan
Geotechnical / Marine Summary	<ul style="list-style-type: none"> · Summary of the Marine Structures and Geotechnical design requirements with regard to the terminal expansion.
Environmental Studies	<ul style="list-style-type: none"> · Acoustic Environment · Air Quality · Greenhouse Gas Emissions · Marine Water and Sediment Quality · Marine Resources: Fish and Fish Habitat, Marine Birds, and Marine Mammals · Terrestrial Resources: Vegetation, Wildlife · Archaeology <ul style="list-style-type: none"> ○ Archaeological Overview Assessment · Heritage Resources <ul style="list-style-type: none"> ○ Ballantyne Pier Heritage Impact Assessment ○ Rogers Sugar Heritage Impact Assessment · Supporting Reports and Management Plans <ul style="list-style-type: none"> ○ Draft Construction Environmental Management Plan ○ Draft Storm Water Pollution Prevention Plan ○ Draft Soil Management Plan ○ Hazardous Materials Site Assessment

Table 5 outlines the concordance between the studies and reports prepared in support of the proposed Project, and the primary topics under the PER process. The table also provides direction to where studies/specific information are located.

Table 5: Studies and Reports - PER Requirements

Topic	PER Requirement	Report Location / Section or comment
Hazardous Materials Report for Demolitions	<ul style="list-style-type: none"> Inventory of any hazardous materials including asbestos, drywall, the contents in aboveground or underground storage tanks, PCBs, abandoned chemicals and others, material safety data sheets (MSDS). 	<ul style="list-style-type: none"> Environmental Studies Report – Section 2.2.1.4 Hazardous Materials Investigations Hazardous Materials Site Assessment
	<ul style="list-style-type: none"> Description of hazardous materials storage and handling methods. 	<ul style="list-style-type: none"> CEMP - Hazardous Materials Management
	<ul style="list-style-type: none"> Table of applicable regulations. 	<ul style="list-style-type: none"> Soil Management Plan – Section 2 Regulatory Framework
	<ul style="list-style-type: none"> Hazardous materials reuse, removal, recycling and disposal plan, prior to demolition of structures in accordance with all relevant regulations. 	<ul style="list-style-type: none"> Construction Environmental Management Plan - Hazardous Materials Management
Geotechnical Report	<ul style="list-style-type: none"> Description of site seismic and geologic hazards. 	<ul style="list-style-type: none"> Geotechnical-Marine Summary
	<ul style="list-style-type: none"> Description of construction measures, precautions and corrective actions recommended for preventing structural damage and reducing the risk of terrestrial, marine and riparian geotechnical hazards to acceptable levels. 	<ul style="list-style-type: none"> Geotechnical-Marine Summary
Stormwater Pollution Prevention Plan	<ul style="list-style-type: none"> Description of daily terminal operations as they relate to storm water management, given the local climate and water capture and treatment systems. 	<ul style="list-style-type: none"> Draft Storm Water Pollution Prevention Plan
	<ul style="list-style-type: none"> Consider any effects of the expansion on stormwater management for the site as a whole. 	<ul style="list-style-type: none"> Draft Storm Water Pollution Prevention Plan
	<ul style="list-style-type: none"> A draft Stormwater Pollution Prevention Plan is required for the Application. The final plan will be required, for review by VFPA, before commencement of construction. 	<ul style="list-style-type: none"> Draft Storm Water Pollution Prevention Plan
Traffic Impact Study	<ul style="list-style-type: none"> An assessment of current site traffic as well as truck and/ rail traffic volumes anticipated, on site circulation, traffic distribution throughout the day and impacts to adjacent and nearby roads, access/egress and storage analysis for vehicles and/rail cars accessing site as well as parking requirements. 	<ul style="list-style-type: none"> Traffic Impact Study
	<ul style="list-style-type: none"> Include proposed hours of operation and staffing number, and description of how the new gate operations (with potential interactions with VFPA's Common Data Initiative) will work. 	<ul style="list-style-type: none"> Traffic Impact Study
	<ul style="list-style-type: none"> A Construction Traffic Management Plan will be required before the start of any construction (condition of any future permit). 	<ul style="list-style-type: none"> This requirement is to be included in the Design-Build Project Requirements.

Topic	PER Requirement	Report Location / Section or comment
Rail Operations Plan	<ul style="list-style-type: none"> · Description of the rail operations expected, including: <ul style="list-style-type: none"> · how rail cars are delivered to the site and managed while on the site; · description of how long an arriving train would take from entering the South Shore (Second Narrows Bridge area), to clearing the last switch and entering the terminal; · description of the design capacity and specifications for the rail components that are specified for all on-site rail. · how shunting or car switching is conducted or managed, and design speed for arriving and departing trains; · account for operations traffic up to the 10 year horizon (the full proposed capacity of the expansion project). 	<ul style="list-style-type: none"> · Terminal Rail Operating Plan
	<ul style="list-style-type: none"> · Assessment to include length and number of cars, average number and peak number of trains per day anticipated at the site, how rail cars are delivered to the site and managed while on the site, and total site capacity – length of tracks and total number of trains that can be accommodated on site. 	<ul style="list-style-type: none"> · Terminal Rail Operating Plan
Berthing Simulation Study	<ul style="list-style-type: none"> · Confirmation of the design vessel range (maximum and minimum size of vessels that can be berthed and loaded) and anticipated traffic levels, anticipated anchorage patterns and utilization periods, bunkering program (whether this is permitted at the terminal), and any other operational criteria. 	<ul style="list-style-type: none"> · Marine Transportation Impact Study
	<ul style="list-style-type: none"> · A statement clarifying the current design vessel vs. the proposed design vessel, and how the fenders, bollards, and other existing infrastructure can handle larger vessels. 	<ul style="list-style-type: none"> · Marine Transportation Impact Study
	<ul style="list-style-type: none"> · Statement confirming that the maximum design vessel fits within the navigation channel parameters. 	<ul style="list-style-type: none"> · Marine Transportation Impact Study
	<ul style="list-style-type: none"> · Sample mooring plan / arrangements for design vessels. 	<p>There are no changes to the existing mooring plans. This is confirmed in the Marine Transportation Impact Study with existing and proposed mooring diagrams</p>
	<ul style="list-style-type: none"> · Analysis of tug requirements - report any special requirements due to the severity of weather / currents. 	<p>There are no changes to the existing berthing operations including any tug requirements as the effective berth would not change. Any increases to vessel sizes will require tug in accordance with published Pacific Pilotage Authority guidance.</p>
Dredging	<ul style="list-style-type: none"> · Diagram of the proposed dredge area and Sediment Analysis. 	<ul style="list-style-type: none"> · Geotechnical-Marine Summary · Environmental Studies Report – Section 2.2.1 Site Preparation · Environmental Studies Report – Figure 2-1 Western Expansion Terminal Plan – Dredge Area · Environmental Studies Report – Figure 2-2 Eastern Expansion Terminal Plan – Dredge Area · Environmental Studies Report – Chapter 7. Marine Water & Sediment Quality

Topic	PER Requirement	Report Location / Section or comment
	<ul style="list-style-type: none"> Description of the proposed dredge volume, method, and anticipated disposal method. 	<ul style="list-style-type: none"> Geotechnical-Marine Summary Environmental Studies Report – Section 2.2.1.2 Dredging – Terminal Environmental Studies Report – Section 2.2.1.3 Dredging – Off-Terminal
	<ul style="list-style-type: none"> Timing of proposed dredging in relation to the fisheries sensitive periods. 	<ul style="list-style-type: none"> Section 2.6.2 and Section 2.6.3
	<ul style="list-style-type: none"> Anticipated timeframe for the duration of works, hours, of operation expected for the equipment. 	<ul style="list-style-type: none"> Construction Environmental Management Plan – Project Schedule
	<ul style="list-style-type: none"> Mitigation measures proposed to reduce induced turbidity. 	<ul style="list-style-type: none"> Environmental Studies Report – Section 7.6.1.1 Fugitive Dredgeate Effects on Water Column Turbidity
Environmental Noise Assessment	<ul style="list-style-type: none"> An assessment of how the proposed development will affect the noise levels experienced by the adjacent community. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 4. Acoustic Environment Environmental Studies Report – Appendix A Noise Assessment Supplemental Information
Environmental Air Assessment	<ul style="list-style-type: none"> Conduct an assessment of contributions to air quality and climate change associated with the facility and related off-site operations. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 5. Atmospheric: Air Quality Environmental Studies Report – Appendix B Air Assessment Dispersion Modelling Environmental Studies Report – Appendix C Air Dispersion Modelling Isopleths Environmental Studies Report – Chapter 6. Atmospheric: GHGs
	<ul style="list-style-type: none"> Comment: A level 2 air assessment is required, including dispersion modelling 	<ul style="list-style-type: none"> Environmental Studies Report – Section 5.6.1.4 Air Dispersion Model Results (Level 2)
Energy Efficiency Study	<ul style="list-style-type: none"> An assessment of how the proposed development (buildings, motorized equipment, and lights) will affect electrical energy consumption levels. Include energy modeling, demonstrate selection of BATNEC (Best Availability Technology Not Entailing Excessive Cost) energy efficient equipment. 	<ul style="list-style-type: none"> Project Energy Study
View and Shade Impact Analysis	<ul style="list-style-type: none"> An assessment and renderings of potential view and shade impacts of the proposed development. 	<ul style="list-style-type: none"> View and Shade Study
Alternative Siting Options	<ul style="list-style-type: none"> An assessment of alternative siting options of proposed buildings and structures. Report should include rationales for each rejected option from an environmental, community and economic perspectives. 	<ul style="list-style-type: none"> Alternative Siting Report
Archaeological Potential - Preliminary Assessment	<ul style="list-style-type: none"> Footprint and depth of ground alteration works, if proposed. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 10 Archaeology Environmental Studies Report – Appendix I Archaeological Overview Assessment
	<ul style="list-style-type: none"> Identify if the proposed project is situated on fill or native soil, and what the anticipated impacts to native soil may be. Identify if the proposed project is within 100m of potable water (historically present or currently present). 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 10 Archaeology Environmental Studies Report – Appendix I Archaeological Overview Assessment
	<ul style="list-style-type: none"> Location of proposed project in relation to the original shoreline or river/stream bank. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 10 Archaeology Environmental Studies Report – Appendix I Archaeological Overview Assessment

Topic	PER Requirement	Report Location / Section or comment
	<ul style="list-style-type: none"> Determine if the proposed project is situated on relatively level ground. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 10 Archaeology Environmental Studies Report – Appendix I Archaeological Overview Assessment
Archaeological Overview Assessment	<ul style="list-style-type: none"> Identify and assess archaeological resource potential or sensitivity within a proposed Project area. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 10 Archaeology Environmental Studies Report – Appendix I Archaeological Overview Assessment
	<ul style="list-style-type: none"> Provide recommendations concerning the appropriate methodology and scope of work for subsequent inventory and/or archaeological impact assessment studies. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 10 Archaeology Environmental Studies Report – Appendix I Archaeological Overview Assessment
Construction Environmental Management Plan	<ul style="list-style-type: none"> Description of how the site will be managed during construction that does not result in adverse impacts to the environment, heritage resources, public (municipal, stakeholders, community), Aboriginal groups and including potential effects from limiting noise, vibration, light, dust emissions, and odour. 	<ul style="list-style-type: none"> Construction Environmental Management Plan
	<ul style="list-style-type: none"> A draft Construction Environmental Management Plan will be required at the time of application. It must include key measures to mitigate effects of construction on the environment. 	<ul style="list-style-type: none"> Construction Environmental Management Plan
Vegetation Plan	<ul style="list-style-type: none"> Description of topography, hydrology, soil cover and quality. 	<ul style="list-style-type: none"> Not Applicable. See Environmental Studies Report – Chapter 9. Terrestrial Resources for further details.
	<ul style="list-style-type: none"> Description of current vegetation types, characteristics and relative abundance, including native, listed and invasive species. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 9. Terrestrial Resources CEMP: Vegetation and Wildlife Management
	<ul style="list-style-type: none"> Description of riparian vegetation removal and details as to proposed location, species and ratio of replacement planting and include an adaptive vegetation management, monitoring and control plan. Locations and ratios will be confirmed by VFPA upon review of a complete application. 	<ul style="list-style-type: none"> Not Applicable. See Environmental Studies Report – Chapter 9. Terrestrial Resources for further details.
Soil Management	<ul style="list-style-type: none"> Outlines how the proponent will test for, appropriately handle, limit migration/run-off and dispose of contaminated soils. 	<ul style="list-style-type: none"> Soil Management Plan
Biophysical Survey Report	<ul style="list-style-type: none"> An assessment of species and habitats that will be affected by project activities such as infilling, vegetation removal, or shoreline modification. 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 7. Marine Water and Sediment Quality Environmental Studies Report – Chapter 8. Marine Resources Environmental Studies Report – Chapter 9. Terrestrial Resources Environmental Studies Report – Appendix G Biophysical Assessment Environmental Studies Report – Appendix H
Nesting Bird Survey	<ul style="list-style-type: none"> An assessment of nesting birds using non-intrusive methods (i.e. determine the presence of birds in habitat through observation of singing birds, alarm calls, distraction displays, nest). 	<ul style="list-style-type: none"> Environmental Studies Report – Chapter 9. Terrestrial Resources
	<ul style="list-style-type: none"> Include a description of existing conditions, potential impacts, and proposed mitigation strategies. 	<ul style="list-style-type: none"> Environmental Studies Report – Section 9.5.2 Wildlife Existing Conditions Environmental Studies Report – Section 9.6.2 Wildlife Potential Project Effects and Mitigation

Topic	PER Requirement	Report Location / Section or comment
Species-at-Risk Assessment	<ul style="list-style-type: none"> Identification of all federal and provincial listed species-at-risk associated with the proposed Project. 	<ul style="list-style-type: none"> Environmental Studies Report – Section 8.5.1 Fish and Fish Habitat Environmental Studies Report – Section 8.5.2 Marine Birds Environmental Studies Report – Section 8.5.3 Marine Mammals Environmental Studies Report – Chapter 9. Terrestrial Resources Environmental Studies Report – Appendix H
	<ul style="list-style-type: none"> Include a description of potential impacts and proposed mitigation strategies. 	<ul style="list-style-type: none"> Environmental Studies Report – Section 8.6 Marine Resources Potential Project Effects and Mitigation Environmental Studies Report – Chapter 9. Terrestrial Resources Environmental Studies Report – Construction Environmental Management Plan Sensitive Habitat Features and Species
Invasive Species Assessment	<ul style="list-style-type: none"> Existing invasive species types. 	<ul style="list-style-type: none"> Environmental Studies Report – Section 9.5.1 Vegetation
	<ul style="list-style-type: none"> Mitigation plan to prevent spread of invasive species during construction 	<ul style="list-style-type: none"> Environmental Studies Report – Section 9.6.1 Vegetation
	<ul style="list-style-type: none"> Invasive species monitoring and management plan. 	<ul style="list-style-type: none"> Environmental Studies Report – Vegetation and Wildlife Management
Spill Prevention and Emergency Response Plan (on land and water)	<ul style="list-style-type: none"> Update the existing Spill Prevention and Emergency Response Plan (as it relates to all potential site emergencies) for the site based on changes anticipated from the proposed expansion project, including access points, access routes, hydrant coverage and locations, measures to identify and control a fire, etc. 	<p>DP World Vancouver has an existing Spill Response Plan and has committed to updating their existing Spill Response Plan at the end of the Construction phase.</p> <p>Contractor to provide construction specific Spill Response Plan as part of Construction Environmental Management Plan. See Construction Environmental Management Plan Spill Response Plan.</p>
	<ul style="list-style-type: none"> Emergency Response Plan as it relates to reportable spills. 	<p>DP World Vancouver has an existing Spill Response Plan and has committed to updating their existing Spill Response Plan at the end of the Construction phase.</p>
	<ul style="list-style-type: none"> Include an inventory of hazardous materials anticipated to be handled or stored on site during normal operations (not products in transit, but products used at the terminal). 	<ul style="list-style-type: none"> Hazardous Materials Site Assessment
	<ul style="list-style-type: none"> A description of spill prevention, containment and clean-up plan for hydrocarbon products (including fuel, oil and hydraulic fluid) and any other deleterious substances using standards, practices, methods and procedures to a good commercial standard, conforming to applicable laws. 	<p>DP World Vancouver has an existing Spill Response Plan and has committed to updating their existing Spill Response Plan at the end of the Construction phase.</p>
	<ul style="list-style-type: none"> Description of proposed employee training, emergency response communication plan, emergency procedures, spill tracking and reporting, records of facilities inspections. 	<p>DP World Vancouver has an existing Spill Response Plan and has committed to updating their existing Spill Response Plan at the end of the Construction phase.</p>
	<ul style="list-style-type: none"> Reference to appropriate spill containment and clean-up supplies available on site at all times and that all personnel working on the project are familiar with the spill prevention, containment and clean-up plan. 	<p>DP World Vancouver has an existing Spill Response Plan and has committed to updating their existing Spill Response Plan at the end of the Construction phase.</p>

Topic	PER Requirement	Report Location / Section or comment
Heritage	· Given the direct effects on the Ballantyne Pier Shed No. 1, submit a Heritage Impact Assessment outlining the treatment recommendations, and also strategies for lessening any potential effects of the reconfiguration of truck gates in close proximity to the Ballantyne Pier Shed.	· Environmental Studies Report – Chapter 11. Heritage Resources