DELTAPORT THIRD BERTH EXPANSION PROJECT

COMPREHENSIVE STUDY REPORT

With Respect to
The Requirements of a Comprehensive Study
Pursuant to the *Canadian Environmental Assessment Act, SC 1992, c. 37*

July 5, 2006

Prepared by

Fisheries and Oceans Canada
and
Environment Canada

Government of Canada | Gouvernement du Canada | Canada

EXECUTIVE SUMMARY

PURPOSE OF THIS REPORT

This Report is designed to describe the Deltaport Container Terminal Third Berth Project (Project), assess its potential environmental effects, identify the measures required to mitigate any adverse environmental effects of the Project and evaluate the significance of any residual adverse environmental effects following the implementation of appropriate mitigation.

This Report constitutes a **Comprehensive Study Report** (CSR) to satisfy the requirements of the *Canadian Environmental Assessment Act* (CEAA). This Report has been prepared jointly by Fisheries and Oceans Canada (DFO) and Environment Canada (EC) as federal Responsible Authorities (RAs). The basis for this Report was developed through a cooperative assessment conducted with British Columbia Environmental Assessment Office (EAO).

PROJECT DESCRIPTION

The Project has been proposed by the Vancouver Port Authority (the Proponent) to expand the existing Deltaport Container Terminal (Deltaport) at Roberts Bank in Delta, British Columbia (see Figure A).

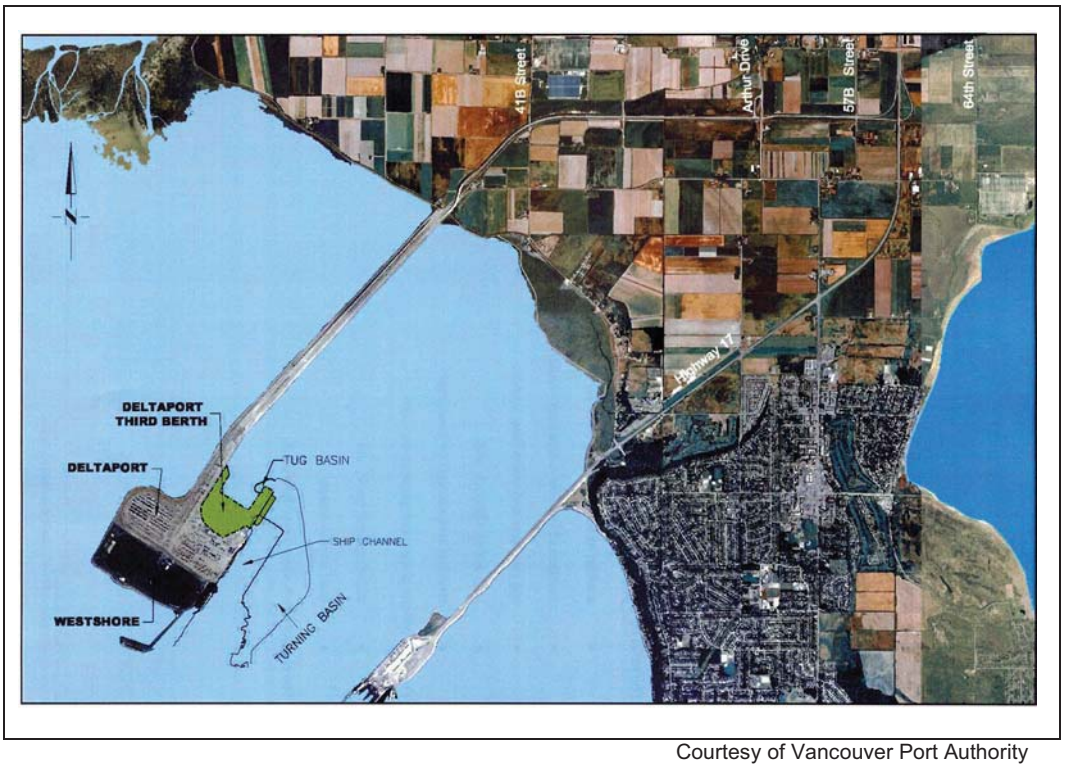
The Project consists of construction and operation of a caisson supported wharf to accommodate an additional berth and approximately 22 ha of fill to accommodate an expanded container storage yard. The Project also includes dredging to deepen the existing ship channel and create a tug moorage area adjacent to the terminal. Rail upgrades are proposed within existing rail rights-of-way and upgrades to existing roads and highways have also been proposed.

The estimated capital cost of the Project is approximately $272 million. Construction is expected to take about 32 months to complete. The Proponent has proposed starting construction in the fall of 2006.

PURPOSE OF PROJECT

The primary purpose of the Project is to provide additional container terminal facilities to increase the Proponent's competitiveness in the Pacific Northwest container market. The Proponent predicts that North American container volumes will grow at a rate greater than the economy through 2020, and Pacific Northwest ports, including the Port of Vancouver, are expected to capture an increasing share of west coast container traffic.

The Proponent has an overall expansion strategy that consists of: increasing production at existing terminals, expanding existing facilities, and exploring options for new facilities. The Proponent has provided details on the proposed Vancouver container port expansions and the rationale for the specific third berth expansion at Roberts Bank. The Project also constitutes a significant component of the federal *Pacific Gateway Strategy that was* announced in October 2005.



Courtesy of Vancouver Port Authority

Figure A: Location of Project

PROVINCIAL AND FEDERAL ENVIRONMENTAL ASSESSMENTS

The Project triggers a federal EA under CEAA because Fisheries and Oceans Canada (DFO) and Environment Canada (EC) will be required to issue statutory or regulatory approvals for various aspects of the Project, which are listed on the *Law List Regulations* of CEAA. Specifically required would be an authorization pursuant to section 35(2) of the *Fisheries Act* and a permit under section 127(1) of the *Canadian Environmental Protection Act (*CEPA*)* for disposal at sea.

The Project type is included in section 28(c) of the *Comprehensive Study List Regulations* under CEAA, pursuant to the proposed construction, decommissioning or abandonment of a marine terminal designed to handle vessels larger than 25,000 DWT. Subsequent to a public consultation period, the federal Minister of the Environment confirmed on December 17, 2004 that the assessment would be conducted by means of a comprehensive study.

Natural Resources Canada (NRCan), Transport Canada (TC), and Health Canada (HC) all provided specialist advice to the assessment, in their role as Federal Authorities (FAs).

An environmental assessment is also required under the *Canada Port Authority Environmental Assessment Regulations*, SOR/99-318. Because the Project is described in the *Comprehensive Study List Regulations*, a comprehensive study and the preparation of a comprehensive study report is also required. By virtue of s. 8 of the *Canada Port Authority Environmental Assessment Regulations* and s. 2(1) and (2) of CEAA, the VPA, DFO and EC have agreed to follow the process set out in CEAA for the purpose of the environmental assessment of the DP3 Project. This Report will also be referred to the federal Minister of Transport to fulfill the requirements of the *Canada Port Authority Environmental Assessment Regulations.*

The Project also triggered a provincial EA under the *British Columbia Environmental Assessment Act* (BCEAA) and the provincial and federal assessment processes have been harmonized in

accordance with the Canada/British Columbia Agreement for Environmental Assessment Cooperation (March 2004).

SCOPE OF THE COOPERATIVE ASSESSMENT

The cooperative federal/provincial environmental assessment (EA) includes consideration of the potential environmental, socio-economic, heritage, and health effects of the Project, taking into account mitigation measures to prevent or reduce any potential adverse environmental effects.

The environmental assessment under CEAA considered the following factors:

- the environmental effects of the Project, including:
    - the environmental effects of malfunctions or accidents that may occur in connection with the Project;
    - any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out; and
    - any change that the Project may cause to listed wildlife species, its critical habitat, or the residences of individuals of that species, as those terms are defined in section 2(1) of the *Species at Risk Act* (SARA), (species also include those identified by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)).
- the significance of the environmental effects referred to above;
- comments from the public;
- measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the Project;
- the purpose of the Project;
- alternatives to the Project;
- alternative means of carrying out the Project that are technically and economically feasible and the environmental effects of any such alternative means;
- the need for, and the requirements of, any follow-up program in respect of the Project;
- the capacity of renewable resources, that are likely to be significantly affected by the Project, to meet the needs of the present and those of the future;
- the effects of the Project on the environment that may impact social, economic, heritage and human health; and
- community knowledge and Aboriginal traditional knowledge.

PUBLIC CONSULTATION AND ISSUES

The first opportunity for public input into the federal EA was provided under section 21(1) of CEAA, when the RAs invited members of the public to review and comment on the proposed scope of the Project, the proposed factors to be considered in the environmental assessment, the proposed scope of those factors, and the ability of a comprehensive study to address issues relating to the Project.

A second opportunity for public input was provided as a part of the cooperative provincial/federal review of the Project; the RAs shared the formal comment period on the Application that was used for BCEAA.

A third opportunity for public input on the Project and the associated environmental assessment is through commentary on this report. All comments submitted will be provided to the RAs and will become part of the public registry for the Project. The RAs will be asked by the Agency to advise whether their conclusions have been altered as a result of the public comments received. This public input, along with comments received during the development of the CSR, will be taken into account by the Minister of the Environment when issuing an environmental assessment decision statement.

Apart from two public written submissions in general support of the Project, all other submissions received during the cooperative provincial/federal review of the Project, expressed concerns over and/or objections to the Project. The key concerns and objections voiced by the public included:

- Need for the Roberts Bank container port expansion;
- Scoping of the Project and the assessment under federal and provincial legislation;
- Environmental assessment by agencies rather than a federal panel;
- Inadequacy of assessment documentation and dissemination of such information;
- Too few public meetings and absence of useful consultation;
- Inadequate time to prepare public comments;
- Negative impacts on and loss of wildlife habitat in the Fraser River estuary;
- Project's adverse impacts on COSEWIC listed species;
- The cumulative effects assessment and the need to include container Terminal 2 (T2) in the Project assessment;
- Long-term status of geomorphology stability and degradation of inter-tidal habitat;
- Adverse impacts on marine habitats and inadequate habitat compensation plans;
- Adverse visual and lighting impacts at Roberts Bank and in Tsawwassen;
- Transportation and construction noise;
- Negative impacts on regional and local air quality;
- Road crossings of emergency and farm vehicles, connectivity and inconvenience;
- Negative impacts of rail/road crossings in Surrey and Langley and public safety;
- Traffic congestion due to an increase in container truck traffic; and
- Increased risk of accidents and malfunctions.

All issues raised by the public during the review and within the scope of the Project have been considered in the review process.

GOVERNMENT CONSULTATION AND ISSUES

Proponent consultation on the Project with federal, provincial and local government agencies occurred primarily through use of a Project working group (WG), comprised of representatives of federal, provincial and local government agencies and First Nations. The WG and sub-groups were used to identify, document and resolve Project-related issues.

All technical issues raised by federal, provincial, local government agencies, and First Nations during the review of the Project have been considered in the EA review process and the documents generated as part of the review.

FIRST NATIONS CONSULTATION AND ISSUES

The Project falls within or close to the asserted traditional territories of the following First Nations groups:

Lower Mainland

- Tsawwassen First Nation;
- Musqueam Indian Band;
- Katzie First Nation;
- Sto:lo Nation;
- Sto:lo Tribal Council;
- Semiahmoo Nation;

Vancouver Island

- Sencot'en Alliance; and
- Hul'qumi'num Treaty Group.

Throughout the cooperative Project review, all relevant review documents were made available to the identified First Nations.

Early in the Project review (April 2003), EAO issued letters to the Lower Mainland based First Nations referenced above, advising them of the Project and the EA review, and requesting confirmation of their interest in the Project. The EAO invited these First Nations' to participate in the cooperative EA review and to provide information about the Project's potential effects on asserted Aboriginal rights and title and traditional uses.

The EAO, RAs, and the Proponent continued their efforts to engage all the identified First Nations during the EA review and in the working group meetings. The First Nations were provided with the meeting notes and the agenda for future meetings. The Tsawwassen First Nation, the Sencot'en Alliance and the Hul'qumi'num Treaty Group all attended a number of working group meetings and provided comments on the Application and its supporting documents.

KEY POTENTIAL ENVIRONMENTAL EFFECTS CONSIDERED DURING THE ASSESSMENT

Key potential environmental effects considered during the Project review included:

Coastal Geomorphology

- Potential higher flow concentration at the end of the proposed wharf extension;
- Potential for new tidal drainage channels forming in response to planned navigation dredging; and
- Based on the information in the Application, potential for localized disturbance of the tidal flats near the proposed tug basin, which could induce shallow, small-scale channel formation.

Water Quality

- Increases in suspended solids (elevation of turbidity and TSS levels) in the water column during dredging, ocean disposal and terminal filling operations;
- Increases in contaminant levels (heavy metals and PAHs) in the water column during dredging and disposal at sea;
- Small increases in treated sewage and stormwater discharged into the marine environment from terminal operations;
- Discharges including ballast water and bilge water discharges, from ships calling at the DP3 Project; and
- Potential accidents and malfunctions.

Sediment Quality and Dredging

- Potential disturbance (including effects of increased turbidity) of killer whales and their food sources, such as chinook salmon;
- Potential for dredge spoil disposal at sea to cause underwater slides;
- Potential for stormwater releases from DP3 to effect the quality of the surrounding sediments; and
- Potential increases in contaminant levels (heavy metals and PAHs) in waters and sediments during dredging and disposal at sea operations.

Marine Environment

- Permanent loss of approximately 22 hectares of marine habitat;
- Terminal construction and operation effects on water quality from stormwater releases into intertidal habitat;
- Potential effects of dredging and placement of fill on fish, invertebrates, and marine mammals and their food sources such as chinook salmon;
- Potential effects of marine construction and dredging (underwater noise) on marine mammals;
- Marine vessel traffic effects (underwater noise and collision) on marine mammals;
- Terminal and construction illumination affecting juvenile salmon;

- Introduction of non-indigenous species from ballast water discharge; and
- Accidental spills and malfunctions affecting the marine environment.

Waterfowl and Coastal Seabirds

- The permanent loss of approximately 22 hectares of marine habitats that provide roosting, resting and foraging habitat including: approximately 5 hectares of eelgrass habitat; 300 m^2 of salt marsh habitat; 12.7 hectares of intertidal mudflat and 3.4 hectares of subtidal mudflat;
- The potential effects of tug basin dredging on eelgrass habitat and the potential for erosion of intertidal mudflat habitat;
- Potential effects of additional lighting during Project construction and operation;
- Potential effects of additional noise and related disturbance activities during Project construction and operation;
- Potential effects of the release of contaminants and deleterious materials during Project construction and operation;
- Potential for marine eutrophication to effect inter-causeway migratory bird habitats; and
- Potential for an increase in dendritic channelization.

Terrestrial Wildlife and Vegetation

- A small level of effect to nesting habitat of killdeer and dabbling ducks may occur as a result of the proposed rail construction on Deltaport Way;
- Some temporary sensory disturbance to waterfowl and shorebirds;
- Potential disturbance of ground-nesting raptors such as the northern harrier;
- Some temporary sensory disturbance to the Townsend's big-eared bat during the construction phase of the Project is likely;
- Potential siltation and polluted runoff from construction activities into the drainage ditches indirectly having the potential to effect amphibians, reptiles and aquatic invertebrates;
- Habitat loss and habitat disturbance during the construction of the expanded rail bed and gravel access road;
- Potential introduction of non-indigenous species;
- The potential for sensory disturbance to wildlife during the construction period or operation of the Project: within the study area;
- Potential wildlife mortality during construction resulting in mortality for small mammals that inhabit grass areas, and upper soil layers, or if done during the breeding season this may result in bird mortality, particularly to nestlings;
- Changes in wildlife movement due to the construction;
- Potential for an increase in barn owl collisions with vehicles during construction and operation along Deltaport Way; and
- Potential accidents and unplanned events such as spills and leaks of hazardous materials.

Air Quality

- Effect of Project emissions on ambient sulphur dioxide (SO_2) levels;
- Effect of Project nitrogen oxide (NO_x) emissions on ambient nitrogen dioxide (NO_2) levels;
- Effect of Project emissions on ambient carbon monoxide (CO) levels;
- Effect of Project emissions on ambient particulate matter (PM) concentrations;
- Effect of Project emissions on secondary ozone and PM formation;
- Project contribution to greenhouse gas (GHG) emissions; and
- Human and wildlife health risk due to Project air emissions.

Noise

- Noise due to construction activities;
- Rail induced noise from diesel engines, train shunting, and whistles;
- Noise associated with vibrations caused by moving trains;

- Increased noise due to container terminal activities; and
- Alarms for the additional ship-to-shore gantries and terminal equipment.

Visual

- Changes to the visual landscape through alterations of views and aesthetics.

Lighting

- Increase in light trespass;
- Increase in nuisance glare;
- Sky brightness due to enlarged lighted area; and
- Effects of additional light on marine life, migratory birds and wildlife.

Socio-economic

- Relocation of some construction workers to local area;
- Effect on existing local use, such as rental of office space;
- Traffic delays associated with railway construction;
- Traffic increases associated with construction trucks and workers;
- Increased demand on local hospitals and medical services;
- Relocation of some facility workers to local area;
- Increased noise associated with additional trains; and
- Increased traffic on road network due to additional truck traffic.

Heritage and Archaeological Resources

- Potential effects on archaeological resources from road and rail upgrades.

Accidents and Malfunctions

- Potential degradation of water quality;
- Contamination of marine sediments;
- Toxicity/mortality to fish and marine mammals;
- Toxicity/mortality to waterfowl and coastal seabirds;
- Effects on the terrestrial environment;
- Effects on workers;
- Effects on neighbouring communities; and
- The potential for non-indigenous species to be transported in ballast water and be deposited to establish in the local environment as a pest species affecting the native species.

Effects of the Environment on the Project

- Seismic events;
- Tsunami events;
- Extreme storm events;
- Climate change; and
- Sea level rise.

Cumulative Effects Assessment

Cumulative environmental effects are defined as residual effects that, when combined with the impacts of other past, existing or imminent projects and activities, may have a compounding or interactive effect.

- Change in marine habitat types;
- Inter-causeway marine eutrophication;
- Change in marine habitats;
- Alteration to bird habitat;
- Marine mammal population effects;

- Human health effects through noise;
- Increased traffic delays; and
- Human health effects through air quality.

Sustainable Development

- Potential habitat loss in the marine environment;
- Potential loss of habitat for coastal seabirds and waterfowl; and
- Potential changes to future air quality.

KEY FIRST NATIONS INTERESTS RAISED DURING THE ASSESSMENT

First Nation interests considered during the EA review of the proposed Project were:

- Accessibility to water area for Aboriginal use of the inter-causeway marine environment;
- Impacts on bio-physical effects such as water quality, dendritic channel expansions;
- Increased sedimentation and potential for eutrophication in the inter-causeway area;
- Cumulative effects on marine resources; and
- Cumulative effects on noise, traffic and air quality on human health.

MONITORING AND FOLLOW UP

The purpose of a follow-up program is to verify the accuracy of the environmental assessment and determine the effectiveness of measures taken to mitigate the potential adverse environmental effects of the Project. The following elements will be used to verify the accuracy of impact predictions and determine the effectiveness of measures taken to mitigate the potential adverse environmental effects of the Project:

Proponent's Environmental Management Plans

In the Application the Proponent committed to the adoption of appropriate Environmental Management Plans as an important component of the Project. The Environmental Management Plans are to outline the commitments of the Proponent, the Terminal Operator (currently Terminal Systems Inc., TSI), and contractors to address monitoring and mitigation measures identified in the *Owner's Table of Commitments (Appendix A).*

Adaptive Management Strategy

As part of the DP3 Project, an Adaptive Management Strategy (AMS) has been developed, to provide practical advance warning of any potential emerging negative ecosystem trends during Project construction and operation, and to establish actions that the Proponent would undertake to prevent or mitigate negative trends which are linked to DP3 and found to exceed thresholds.

The objective of the DP3 AMS is to undertake a science-based systematic approach to monitoring and managing the Roberts Bank inter-causeway ecosystem specifically to reduce uncertainty and assess the potential for future marine eutrophic events and dendritic channelization leading to erosion that result in negative trends in the ecosystem. Further the AMS details the commitments that the Proponent would undertake to evaluate, prevent or mitigate those negative trends attributable to the DP3 Project.

Habitat Compensation Plan

Ensuring no net loss of productive capacity, as outlined in the Fisheries and Oceans Canada (DFO) *Policy for the Management of Fish Habitat*, is essential to ensuring sustainability of the marine environment of Roberts Bank. The Deltaport Third Berth Project must meet the requirements of the DFO no net loss guiding principle. The Proponent recognizes that fish and wildlife habitat requirements are inextricably linked in the overall context of the Roberts Bank ecosystem and therefore synergies are gained by incorporating fish and migratory bird values into the Habitat Compensation Plan. As such, the Proponent has committed to implementing the Marine Environment Management Plan, which will be developed to meet the requirements of a *Fisheries Act* authorization that will be produced for the Project.

COMMITMENTS MADE BY THE PROPONENT FOR MITIGATION OF POTENTIAL EFFECTS

The Proponent proposes to mitigate potential effects through commitments made in its Application, as well as modified and new commitments to address issues raised during the EA review. Key commitments include:

- A full conceptual fish habitat and migratory bird compensation plan dated March 12, 2006;
- An Adaptive Management Strategy for the Roberts Bank inter-causeway area to provide practical advance warning of any potential emerging negative ecosystem trends, including marine eutrophication events, marine environment and waterfowl and coastal seabird concerns and effects on water quality during DP3 Project construction and operation;
- Participation in a wider reaching Roberts Bank Stewardship Program;
- Reduction of the project footprint from the original proposed 32 hectares to approximately 22 hectares;
- Monitoring of migratory birds as outlined in the Adaptive Management Strategy;
- Silt curtains or booms will be deployed to minimize silt plume impacts on the biotic marine environment during dredging if required;
- Mitigation to reduce turbidity during dredging and disposal will be employed, and dredging and disposal operations will be stopped if killer whales enter the immediate area;
- The relocation of all stormwater outfalls to the southeast side of the terminal (off the wharf face); stormwater treatment prior to discharge;
- A phased program to undertake stabilization of the existing dendritic channels in the inter-causeway area as part of the Habitat Compensation Plan;
- All sewage will be directed to the existing Deltaport secondary sewage treatment plant which has an existing provincial effluent permit and sufficient capacity to adequately treat the additional effluent;
- Modifying the dredge program to source terminal fill from the Fraser River, eliminating the need for additional dredging in the turning basin and substantially reducing the overall marine dredging program;
- Adhering to DFO dredging guidelines as well as Best Management Practices during construction to minimize disruption of habitat or losses of individual adult Dungeness crabs, fishes and lingcod and their egg masses which are also food for waterfowl and coastal seabirds that use the study area;
- Concentrating construction phases in the intertidal zone to winter months to minimize disruption to eelgrass and to intertidal mudflats, which makes these habitats less susceptible to increased TSS levels;
- Prior to placement of fill in the intertidal area for the terminal footprint, surveying the intertidal area and relocating juvenile and adult crabs to a suitable adjacent area away from construction;
- If monitoring indicates juvenile salmon are present in areas where work is occurring in water less than five metres CD, bubble or silt curtains will be deployed to keep fish away from the works area or to isolate the works area from fish;
- Minimizing light and noise effects and related disturbance impacts to fishes, marine mammals and birds, including modifications to the marine dredge lighting systems and setting maximum allowable noise emissions from each type of machinery prior to construction;
- Working with BC Pilots to develop an education and awareness program about marine mammals;
- Assessing additional mitigation for potential underwater noise effects to marine mammals, which may include lowering vessel approach to 10 km/h or less when approaching the port area and encouraging proper maintenance of ship propellers;

- Consultation with the appropriate regulatory agencies and non-government agencies/organizations to establish pelagic cormorant resting/roosting structures away from port industrial structures;
- A Wildlife and Vegetation Environmental Management Plan and mitigation measures to address barn owl collision with vehicles;
- Incorporating the infrastructure for shore power for ships in Project design and construction, and conducting a feasibility study for shore based power;
- Reducing overall air emissions from the Project as well as from all port operations wherever it is technically and economically feasible to do so;
- Implementing air quality initiatives in the tendering process for the construction of the Project and during operation to reduce emissions where possible;
- Establishing an air quality monitoring station in Delta;
- Development of a Noise Management Plan that will be incorporated into the construction and operation Environmental Management Plans;
- A Community Liaison Committee to address public generated concerns including noise, lighting and visual impacts;
- Modifications to the marine dredge lighting systems and terminal lighting system to minimize light trespass to the environment and surrounding community;
- Implementing a complaint tracking and response mechanism for the construction phase of the Project;
- A Traffic Management Plan and working with relevant agencies to address transportation related issues;
- A Construction Environmental Management Plan with sub-plans to address dredging, surface water quality and sediment control, hazardous waste management and spills, health and safety, emergency response, waste management, noise, wildlife and vegetation impacts, marine environment, marine water quality, air quality impacts and traffic concerns; and
- An Operational Environmental Management Plan that will include sub-plans for the Deltaport Terminal, Vancouver Port Authority Environmental Management Plan and TSI Emergency Response Plan.

OVERALL CONCLUSION

Pursuant to the requirements of the CEAA, the federal RAs have determined that, on the basis of the information summarized in the CSR, the general conclusion of the environmental assessment is that provided the proponent:

1) fulfills its commitments, including compliance and effects monitoring and follow-up measures as outlined in *Appendix A*, and

2) implements the Adaptive Management Strategy and the Habitat Compensation Plan (including follow-up environmental management and monitoring program agreements) as the Proponent and the RAs have agreed,

the DP3 Project is not likely to cause significant adverse effects.

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LIST OF ABBREVIATIONS

A	
AMS	Adaptive Management Strategy
ATOR	Approved Terms of Reference
B	
BBCC	Boundary Bay Conservation Committee
BC	British Columbia
BCEAA	British Columbia *Environmental Assessment Act,* S.B.C. 2002, c.43
C	
CCME	Canadian Council of Ministers of the Environment
CD	Chart Datum
CDC	Conservation Data Centre
CEA	Cumulative Effects Assessment
CEAA	*Canadian Environmental Assessment Act* SC 1992, c. 37
CEA Agency	Canadian Environmental Assessment Agency
CN	Canadian National Railway
CO	Carbon Monoxide
COD	Corporation of Delta
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CR	Concentration Ratio
CRF	Concentration-Response Factor
CSR	Comprehensive Study Report
CWS	Canadian Wildlife Service
D	
dB	Decibel
dBA	A-weighted decibel
Deltaport	Deltaport Container Terminal
DFO	Fisheries and Oceans Canada
DO	Dissolved Oxygen
DP3	Deltaport Third Berth Project
DWT	Dead Weight Tonne
E	
EA	Environmental Assessment
EAO	British Columbia Environmental Assessment Office
EC	Environment Canada
EMP	Environmental Management Plan
EMS	Environmental Management System
ER	Exposure Ratio
F	
FA	Federal Authority
FHA	Fraser Health Authority
FTE	Full-time-Equivalent (jobs).
FVRD	Fraser Valley Regional District
G	
GDP	Gross Domestic Product
GVRD	Greater Vancouver Regional District
H	
ha	Hectare
HA	Highly Annoyed
Hazmat	Hazardous Materials
HCP	Habitat Compensation Plan
HEI	Health Effects Institute (a non-profit US corporation chartered in 1980 as an independent research organization)

HHRA	Human Health Risk Assessment
HOV	High Occupancy Vehicle
h	Hour
HTG	Hul'qumi'num Treaty Group representing the Chemainus, Halalt, Hwlitsum, Lyackson, and Lake Cowichan First Nations, and the Penelakut and Cowichan Tribes
Hz	Hertz
	I
IARC	International Agency for Research on Cancer
IMO	International Maritime Organization
ISO	International Organisation for Standardization
ISPS	International Ship and Port-facility Security
IUCN	International Union for the Protection of Nature
	K
km	Kilometre
	L
L_{eq}	The Equivalent Sound Level (L_{eq}) is commonly used to indicate the average sound level over a period of time. L_{eq} represents the steady level of sound which would contain the same amount of sound energy as does the actual time-varying sound level. Although it is an average, it is strongly influenced by the loudest events occurring during the time period because these loudest events contain most of the sound energy.
L_d	L_d is L_{eq} measured throughout daytime hours (7:00am to 10:00pm).
L_n	L_n is L_{eq} measured throughout night time hours (10:00pm to 7:00am).
L_{dn}	The Day Night Equivalent Level (L_{dn}) is the $L_{eq}(24)$ calculated after increasing the night time noise levels by 10dB to account for greater sensitivities to noise during the hours from 10:00pm to 7:00am.
L_{Rdn}	The Day/Night Rating Level (L_{Rdn}) results from adjustments made to the L_{dn} to account for the characteristics of certain sounds (e.g., tonal qualities). Such adjustments are referred to as "normalizing factors".
LFV	Lower Fraser Valley
LLW	Lowest Low Water (level).
LRSP	Livable Region Strategic Plan
LSA	Local Study Area
	M
m	Metre
MARPOL	International Convention for the Prevention of Pollution from Ships
MELP	Ministry of Environment, Lands and Parks
MIB	Musqueam Indian Band
MOT	Ministry of Transportation
MWLAP	Ministry of Water Land and Air Protection
	N
NBCC	National Building Code of Canada
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxide
	O
O_3	Ozone
OCP	Delta Official Community Plan
	P
P	Phosphorus
PAH	Polycyclic Aromatic Hydrocarbons
PM	Particulate Matter
PM_{10}	Particulate Matter of 10 Microns or Less in Diameter
$PM_{2.5}$	Particulate Matter of 2.5 Microns or Less in Diameter
PSEP	Puget Sound Estuary Program
the Port	The Port of Vancouver

the Project	Deltaport Third Berth Project
R	
RA	Responsible Authority
RAAD	Remote Access to Archaeological Data
RMG	Rail Mounted Gantries
RSA	Regional Study Area
RTG	Rubber-Tired Gantry
RWDI	RWDI West Inc.
S	
Sencot'en Alliance	Representing the Pauquachin, Tsartlip, Tsawout, and Semiahmoo First Nations
SARA	*Species at Risk Act* (2002, c. 29)
SECA	SO_x Emission Control Area
SEWG	Socio-economic/Community Working Group
SO_2	Sulphur Dioxide
SO_x	Sulphur Oxide
T	
TBWG	Technical/Biophysical Working Group
TEU	Twenty-foot Equivalent Units
TFN	Tsawwassen First Nation
TOC	Total Organic Carbon
TOR	Terms of Reference
TSI	Terminal Systems Inc.
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
U	
USA	United States of America
V	
VEC	Valued Ecosystem Component
VOC	Volatile Organic Compounds
VPA	Vancouver Port Authority
W	
WHO	World Health Organization
WHRA	Wildlife Health Risk Assessment
WHSRN	Western Hemisphere Shorebird Reserve Network

GLOSSARY OF TERMS

A	
accreting	Build up or rise relative to a fixed height (e.g., chart datum) of a landform due to sedimentation.
ambient	Surrounding environment.
ambient noise	The all-encompassing noise associated within a given environment. It is the composite of sounds from many sources, both near and far.
amphibian	A cold-blooded, smooth-skinned vertebrate of the class Amphibia, such as a frog or salamander, that characteristically hatches as an aquatic larva with gills. The larva then transforms into an adult having air-breathing lungs.
archaeological site	A place where physical remains or modification of the natural environment indicate past and 'traditional' activities by First Nations

	people. Site types include isolated artefacts, burials, shell middens etc.
a-weighted decibel	"A-weighting" networks are commonly employed in sound level meters to simulate the frequency response of human hearing. A-weighted sound levels are designated dBA rather than dB.
B	
biota	All animal and plant life in a given area.
bioturbated	Movement of sediments by organisms.
birds	Any of the class Aves of warm-blooded, egg-laying, feathered vertebrates with forelimbs modified to form wings.
Blue-listed species	Species vulnerable to human activity or natural events. Provincial listing.
brackish	Mixture of seawater and fresh water.
C	
coastal geomorphology	The study of the forms and processes of the coast.
conservation	The management of natural resources in a way that will benefit both present and future generations.
Construction Environmental Management Plan	An element of an Environmental Management Plan that addresses the control, training and monitoring measures to be implemented during the construction phase of a project in order to avoid, minimize or ameliorate potentially adverse impacts identified during environmental assessments.
D	
decibel	Measurement of sound made on a logarithmic scale.
degradation	Reduction (usually in height relative to a fixed chart datum) by erosion.
delta	A usually triangular alluvial deposit at the mouth of a river.
dendritic	A branching pattern.
E	
ecosystem	An interdependent system of interacting plants, animals and other organisms together with the non-living (physical and chemical) components of their surroundings.
Endangered species	A species facing imminent extirpation or extinction. Federal listing.
Environmental Management Plan (EMP)	The control, training and monitoring measures to be implemented during the design, construction and operation phases of a project in order to avoid, minimize or ameliorate potentially adverse impacts identified during environmental (being socio-economic, cultural, physical, biological) assessments.
epifauna	Animals living on the surface of a substrate.
eutrophic event	an environmental adverse perturbation caused by an excess rate of supply of organic matter, including excess primary production
Extinct species	A species that no longer exists. Federal listing.
Extirpated species	A species that no longer exists in the wild in Canada, but occurs elsewhere (for example, in captivity or in the wild in the United States). Federal listing.
F	
fauna	Animals.
flora	Plants.
fluvial	of, or pertaining to, a river or riverine environment.
G	
geotechnical	Relating to the form, arrangement and structure of the geology.
greenhouse gas	A gas which has an effect on the radioactive absorptivity of the earth's atmosphere and the atmosphere's temperature (e.g., carbon dioxide).
guild	A group of birds that forage in the same way or on the same food.
H	
habitat	The place where plants and animals live and find the food, water, light, shelter, living space, and other essentials they need to survive.
heritage (cultural heritage)	A term which encompasses First Nation sites and material remains (cultural resources).

hydrodynamics	The study of water movement, predominantly caused by tides and wind.
	I
indirect effects	Changes in sales, income or employment within the economy in backward-linked industries supplying goods and services for construction (land and terminal development) and to the new business that is established.
infauna	Aquatic animals that live in the substrate of a body of water, especially in a soft sea bottom.
insect	Any of numerous usually small arthropod animals of the class Insecta, having an adult stage characterized by three pairs of legs and a body segmented into head, thorax, and abdomen and usually having two pairs of wings. Insects include the flies, crickets, mosquitoes, beetles, butterflies, and bees.
intertidal	The region between the high tide mark and the low tide mark.
invertebrate	An animal without a backbone.
	M
mammal	Any of various warm-blooded vertebrate animals of the class Mammalia, including humans, characterized by a covering of hair on the skin and, in the female, milk-producing mammary glands for nourishing the young.
merganser	Any of various fish-eating diving ducks of the genus *Mergus* or related genera, having a slim hooked bill.
midden	A mound or deposit containing shells, animal bones, and other refuse that indicates the site of a human settlement. Evidence of First Nations occupation in an area.
monitoring	The checking of impacts of a proposal or an existing activity in order to improve or evaluate environmental management practices. To check the efficiency and effectiveness of the environmental assessment process. To determine if the requirements of environmental legislation and associated regulations are being met.
	N
native vegetation	A broad term for vegetation comprised of plant species which occur naturally in Canada.
non-indigenous	Species that does not originate and live or occur naturally in an area or environment.
Not at Risk	A species that has been evaluated and found to be not at risk Federal listing.
	O
Operation Environmental Management Plan	An element of an Environmental Management Plan that addresses the control, training and monitoring measures to be implemented during the operation phase of a project in order to avoid, minimize or ameliorate potentially adverse impacts identified during environmental assessments.
ozone	A form of oxygen having three atoms to the molecule. Ozone is a powerful oxidizing agent.
	P
particulate	Small particles, usually in suspension.
passerines	Of or relating to birds of the order Passeriformes, which includes perching birds and songbirds such as the jays, blackbirds, finches, warblers, and sparrows.
piles	Type of foundation using columns of concrete, steel or timber.
piscivorous	Habitually feeding on fish; fish-eating.
	R
raptor	A bird of prey.
reptile	Any of various cold-blooded, usually egg-laying vertebrates of the class Reptilia, such as a snake, lizard, crocodile or turtle, having an external covering of scales or horny plates and breathing by means of lungs.

Red-listed species	Species populations or communities at high risk of extinction or extirpation. Provincial listing.
S	
secondary effects	Changes in economic activity from subsequent rounds of re-spending in the economy. Comprised of indirect and induced effects.
seismic	Of, subject to, or caused by an earthquake or earth vibration.
semi-diurnal tide	Having one high tide and one low tide occurring approximately once every 12 hours or half of the day.
shorebird	Any of various birds, such as the sandpiper, plover, or snipe, that frequent the shores of coastal or inland waters.
silt curtain	A curtain placed around a dredge or spoil disposal site to contain suspended sediments within the area of the screen.
slough	A stagnant swamp, marsh, bog, or pond, especially as part of a bayou, inlet, or backwater.
Special Concern (species)	A species of special concern because of characteristics that make it particularly sensitive to human activities or natural events. Federal listing.
subtidal	Waters below the high tide mark.
sustainable use	Use of an organism, ecosystem or their renewable resource at a rate within its capacity for renewal.
T	
terrestrial	Living or growing on land; not aquatic.
terminal operator	Stevedoring company who would operate the container handling operations at the Deltaport Third Berth.
Threatened species	A species likely to become endangered if limiting factors are not reversed. Federal listing.
trend	In the context of the Adaptive Management Strategy, a trend could be judged to be emerging if values of monitored data and biota were to change consistently and predictably over time toward increasing or decreasing values. A formal determination that a trend is emerging would be an evidence-based expert opinion of the Scientific Advisory Committee. Such a determination would likely consider potential causality and statistical theory.
trophic	Of or involving the feeding habits or food relationship of different organisms in a food chain.
turbidity	Liquid's ability to intercept light. Measured in nephelometric turbidity units (NTU). Cannot be consistently correlated with the concentration of suspended matter.
tsunami	A very large ocean wave caused by an underwater earthquake or volcanic eruption.
Twenty-foot Equivalent Unit (TEU)	An internationally recognized measurement for containers. A standard twenty-foot container equals 1 TEU. A forty-foot container equals 2 TEU.
V	
vertebrate	An animal with a backbone.
visibility	Measure of extent to which particular components of a development may be visible from surrounding areas.
W	
waterfowl	A water bird, especially a swimming bird, such as ducks and geese.
woodpecker	Any of various usually brightly coloured birds of the family Picidae, having strong claws and a stiff tail adapted for clinging to and climbing trees and a chisel-like bill for drilling through bark and wood.

PART A – GENERAL REVIEW BACKGROUND

1. Introduction

1.1 BACKGROUND

The Vancouver Port Authority (hereinafter referred to as VPA, the Proponent or the Owner) is an independent federal agency that was created by the Government of Canada in 1999 to manage federal port lands in Vancouver and surrounding municipalities. VPA is proposing to expand the Deltaport Container Terminal (Deltaport) at Roberts Bank in Delta, British Columbia. VPA plans to construct an additional berth and storage yard at its existing Deltaport two-berth container terminal. The proposed third berth, known as the Deltaport Third Berth Project (DP3 or Project), is in response to industry projections that indicate that container traffic at all major container ports on the west coast of North America will double in the next 10 years, and triple in the next 20 years. The location of the Project is depicted in Figure 1 below.

The proposed Project is located 35 km south of Vancouver, at the existing Roberts Bank Port facility. The existing VPA facilities at Roberts Bank include Deltaport, a 65-hectare (160-acre) container terminal operated by Terminal Systems Inc. (TSI) and Westshore Terminals, a 50-hectare (124-acre) bulk handling coal port facility. These terminals are connected to the mainland by a 4.1 km causeway, which supports road and rail infrastructure.

The DP3 Project consists of construction of a wharf to accommodate an additional berth, and approximately 22 hectares (50 acres) of newly created land using dredge spoil for an expanded container storage yard. It will also include dredging to deepen the existing ship channel and create a tug moorage area adjacent to the terminal. Rail improvements will be required on the causeway and along the Gulf Siding, within existing rights-of-way. Road improvements on Highway 17 will be undertaken to minimize the effects of the Project on existing traffic flow.

1.2 PURPOSE OF THE COMPREHENSIVE STUDY REPORT

The purpose of a federal Comprehensive Study Report (CSR) is to:

- identify the potential environmental effects of the Project, including the environmental effects of any accidents or malfunctions that may occur in connection with the Project and any cumulative effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out;
- describe measures that are technically and economically feasible to mitigate any adverse environmental effects of the Project;
- report on all public concerns raised in relation to the Project and how they have been addressed; and
- provide conclusions with respect to whether the Project is likely to result in significant adverse environmental effects, based on the information received during the environmental assessment including public comments.

1.3 FEDERAL AND PROVINCIAL EA REVIEW

1.3.1 Federal Process and CEAA Requirements

An environmental assessment (EA) of a project is required under the *Canadian Environmental Assessment Act*, SC 1992, c. 37 as amended (CEAA) before a federal authority exercises certain powers or performs certain duties or functions in respect of a project for the purposes of enabling the project to be carried out, in whole or in part.

Under section 5(1) of CEAA, a federal environmental assessment (EA) will be required when, in respect of a project, a federal authority, for the purpose of enabling the project to be carried out in whole or part:

- is the proponent;
- makes or authorizes payment or any other form of financial assistance to the proponent;
- sells, leases or otherwise disposes of lands; or
- issues a permit, or license or other form of approval pursuant to a statutory or regulatory provision referred to in the CEAA *Law List Regulations*.

In June 2004, the Proponent advised Fisheries and Oceans Canada (DFO) in writing of the proposed DP3 Project. The Proponent was advised that the DP3 Project would require an authorization from DFO pursuant to section 35(2) of the *Fisheries Act,* because the Project would likely result in harmful alteration or destruction of fish habitat. The Proponent was also advised that the Project would require a permit issued by Environment Canada pursuant to the disposal at sea provisions in section 127(1) of the *Canadian Environmental Protection Act, 1999* (CEPA 1999), because the Project would involve the disposal of dredged materials in the ocean. The issuance of both an authorization under s. 35(2) of the *Fisheries Act* and a disposal at sea permit under CEPA 1999, trigger an environmental assessment under CEAA because sections 35(2) of the *Fisheries Act* and section 127(1) of CEPA are listed on the *Law List Regulations* under CEAA.

DFO and EC have been identified as Responsible Authorities (RAs) as defined by CEAA, and are required to conduct an EA for the Project before they can issue approvals under their respective legislation. Federal Authorities (FAs), such as Natural Resources Canada, Transport Canada, and Health Canada, have provided expert advice in relation to the Project. The Canadian Environmental Assessment Agency (CEA Agency), acts as the Federal Environmental Assessment Coordinator for the Project, and, with the input and involvement of the RAs, has coordinated federal involvement throughout the cooperative federal-provincial EA.

The Project type is included in section 28(c) of the *Comprehensive Study List Regulations* under CEAA, pursuant to the proposed construction, decommissioning or abandonment of a marine terminal designed to handle vessels larger than 25,000 DWT. The environmental assessments of projects described in the *Comprehensive Study List Regulations* are subject to comprehensive study

The comprehensive study process under section 21(1) of CEAA requires preparation of a “project scoping document” that is distributed to the public for formal review and comment, in order to obtain input on the proposed scope of the project for the purpose of the EA, the factors proposed to be considered, the proposed scope of those factors, and the ability of the comprehensive study process to address the issues related to the project. A report is then made by the RAs to the federal Minister of the Environment, who determines whether the assessment will continue as a comprehensive study, or whether the assessment will be referred to a mediator or a review panel.

From July 27 to August 23, 2004 the public was invited to comment on the proposed scope of the project, factors proposed to be considered in the assessment, proposed scope of those factors and the ability of the comprehensive study process to address issues relating to the project. Following public consultation and review of the proposed Project Scoping Document (dated July 23, 2004), changes were made to the scope of the project to address public comments received and more accurately describe how VPA’s proposed Terminal 2 project was to be considered in the cumulative effects assessment. Subsequent to the public consultation period, on December 17, 2004, the federal Minister of the Environment confirmed that the assessment would be conducted by means of a comprehensive study.

CEAA requires that a CSR be prepared and distributed for public comment. Upon completion of public review, public comments are forwarded to the federal Minister of the Environment.

The Minister of the Environment reviews the CSR and any public comments filed in relation to its contents. If the Minister is of the opinion that additional information is necessary or actions are needed to address public concerns, the Minister may request that the RAs address these concerns. Once any such concerns are addressed, the Minister would issue an environmental assessment decision statement that includes:

- the Minister's opinion as to whether the Project is likely to cause significant adverse environmental effects; and
- any additional mitigation measures or follow-up program that the Minister considers appropriate.

The Minister then refers the project back to the RAs for a course of action.

If the Minister determines that the project is not likely to cause significant adverse environmental effects, an RA may exercise any power or perform any duty or function, such as issuing a permit or authorization, that would permit the Project, or part of the Project, to be carried out.

1.3.2 Provincial Process

On February 24, 2003, the Proponent advised the British Columbia Environmental Assessment Office (EAO) in writing of its intention to proceed with the Project and in a separate letter, informed EAO about a possible future additional Roberts Bank container port expansion project, the Terminal 2 Project (T2). On February 2, 2006, the Proponent withdrew its letter of intent concerning the initiation of a pre-application review of the T2 Project, citing the inadequacy of existing infrastructure to support such a project.

As DP3 is a reviewable project according to Table 14, section 4 of the provincial *Reviewable Projects Regulation,* BC Reg. 370/2002, EAO issued a section 10 Order pursuant to the British Columbia *Environmental Assessment Act*, SBC 2002, c. 43 (BCEAA) on March 18, 2003, stating that DP3 will require an EA certificate, and that the Proponent may not proceed with the project without an assessment.

On September 17, 2004, EAO issued a section 11 Order pursuant to BCEAA, defining the scope of the required assessment and the procedures and methods for conducting the assessment for the purposes of that Act. On January 31, 2005, the Proponent submitted to EAO an application, which included a detailed project description and environmental impact statement, for an EA certificate for the Project (Application) pursuant to BCEAA. Following a conformance reference check against the Application Terms of Reference issued by EAO on October 8, 2004, the Application was accepted for formal review under BCEAA on February 9, 2005.

Following the completion of the EA review under BCEAA, EAO will prepare an Environmental Assessment Report and Project recommendations for the BC Ministers of Environment and Transportation for a decision under section 17(3) of BCEAA.

1.3.3 Other Federal Involvement

An environmental assessment is also required under the *Canada Port Authority Environmental Assessment Regulations*, SOR/99-318. Because the Project is described in the *Comprehensive Study List Regulations*, a comprehensive study and the preparation of a comprehensive study report is also required. By virtue of s. 8 of the *Canada Port Authority Environmental Assessment Regulations* and s. 2(1) and (2) of CEAA, the VPA, DFO and EC have agreed to follow the process set out in CEAA for the purpose of the environmental assessment of the DP3 Project. This Comprehensive Study report will be referred to the federal Minister of Transport for an environmental assessment decision statement, in order to fulfill the requirements of the *Canada Port Authority Environmental Assessment Regulations.*

1.4 COOPERATIVE ENVIRONMENTAL ASSESSMENT OF THE PROJECT

The Canada-British Columbia Agreement for Environmental Assessment Cooperation (2004) provides for coordinated environmental assessment processes to avoid uncertainty and duplication between the provincial and federal systems and to facilitate a "one project – one review" approach when both processes are triggered.

The harmonized assessment of the Project was conducted in accordance with the Agreement, through a joint federal-provincial work plan. The provincial EAO and the federal CEA Agency provided a coordination function for the EA process. The EAO role is to neutrally administer and manage environmental assessments, and exercise the powers and responsibilities of that office. Likewise, the CEA Agency, as the Federal Environmental Assessment Coordinator, is the principal point of contact for federal authorities during the assessment process, consolidating information requirements for the assessment as well as coordinating the actions of federal authorities with those of the EAO.

This report was produced through a collaborative effort intended to provide a common basis for an Assessment Report under BCEAA and a CSR under CEAA. It captures the process followed, the issues raised, the potential environmental effects, and the Proponent's proposed mitigation measures for the purposes of both federal and provincial reviews.

The federal RAs and expert FAs have participated in the development of this report and are satisfied with its conclusions. However, a final federal determination of whether the Project is likely to cause significant adverse environmental effects will be made by the Minister of the Environment in a federal environmental assessment decision statement.

1.4.1 Advisory Working Groups

As part of the harmonized review process, the EAO established working groups to advise the EAO and RAs on the assessment of the Project. A Technical/Biophysical Working Group (TBWG) and a Socio-economic/Community Working Group (SEWG) were organized early in the pre-application stage of the Project review and examined impact issues described in this report.

Specific tasks of the working groups included:

- reviewing the Application; and
- providing advice on the assessment findings to EAO and on its Environmental Assessment Report prepared for Ministers at the conclusion of the EA review.

The federal RAs relied upon the advice of the working groups in developing this report.

Membership

An invitation to participate in the working groups was circulated to:

- federal government departments;
- provincial government ministries and agencies;
- the Corporation of Delta;
- the Greater Vancouver Regional Transportation Authority;
- the Greater Vancouver Regional District (GVRD); and
- the following First Nations:
    - Tsawwassen First Nation;
    - Musqueam Indian Band;
    - Katzie First Nation;
    - Sto:lo Nation;
    - Semiahmoo Nation;

- Sencot'en Alliance; and
- Hul'qumi'num Treaty Group.

Not all members of the working group were involved in every meeting. All First Nations identified as potentially having an interest in the Project were provided with all Project review documents and were invited to join the TBWG and the SEWG and to attend all meetings. The Tsawwassen First Nation participated in the working groups from early in the pre-application review stage. The Sencot'en Alliance and the Hul'qumi'num Treaty Group joined the Project review process after the Application was filed. Proposed agendas were distributed in advance of the meetings to enable members to decide which meetings they wished to attend.

Meetings

During Pre-Application Stage:

Potential members of the two working groups were invited to an orientation meeting with the Proponent and its consultants in Victoria on March 11, 2003. The participants at that meeting discussed the details of DP3, its likely impacts and the EA process. The first formal pre-application meeting, following the issuance of the section 10 Order under BCEAA on March 18, 2003, was arranged in Tsawwassen on May 5, 2003. Participants at this meeting, with TBWG and SEWG members attending, discussed draft study work plans and the public consultation required for the Project review. The working groups also took part in a site tour of the existing container terminal facilities at Roberts Bank.

Subsequent working group meetings on the Project and a series of draft work plans for studies required for the Project were conducted in Vancouver on October 29, 2003 and January 8, 2004. The latter meeting also included discussion on the review of DP3 studies that would later be made available based on the work plans.

The working groups met again in Vancouver on June 10, 2004 to discuss the Project, the impact assessment, the study work plans and the status of the federal/provincial EA review process. The next pre-application stage meeting took place in Vancouver on September 9, 2004. This meeting included discussion of the remaining study work plans, and participants received an orientation to the public consultation process on the comprehensive study review scoping under section 21 of CEAA. A draft of the Terms of Reference (TOR) required for the Application to be submitted by VPA to EAO was also tabled for discussion. The finalization of the TOR was discussed between EAO and federal agencies. Based on comments received, and discussions with VPA, the TOR were subsequently issued as final and Approved Terms of Reference (ATOR) to VPA on October 8, 2004.

The Application was submitted to EAO as a draft on December 10, 2004. EAO, supported by a small team of federal agencies, conducted Application screening meetings on December 17, 2004 and January 6, 2005. A final version of the Application was submitted to EAO on January 31, 2005, and accepted for formal review under BCEAA on February 9, 2005.

Final meeting notes for all TBWG and SEWG meetings are available through EAO's Project Information Centre online at www.eao.gov.bc.ca.

During Application Review Stage:

EAO invited the working groups to meet with the Proponent and its consultants in Vancouver on March 9, 2005 and April 12, 2005. At these meetings, working group members discussed comments on the Application and received an update on the Project and the public open house and public meeting scheduled for March 16, 2005 and April 12, 2005, respectively.

A third review meeting held in Vancouver on May 19, 2005 included discussion of comments received on the Application and the Proponent's responses, as well as input from the third public meeting in Tsawwassen on May 5, 2005 and the supplementary meeting in Langley on May 11, 2005. A fourth working group meeting, scheduled for June 17, 2005 to discuss progress of the

review and issue tracking, was postponed until July 28, 2005. This delay was prompted by VPA's request for more time to address key federal review issues and comments received on the Application from working group members and the public. This time limit suspension was granted by EAO on June 27, 2005. The VPA used this period to:

- develop a conceptual Habitat Compensation Plan (HCP);
- develop a framework for an inter-causeway Adaptive Management Strategy (AMS);
- update air quality data and amend Chapter 13 of the Application;
- amend the Application's cumulative effects assessment (Chapter 23); and
- finalize responses to agency, First Nations and public comments on the Application.

A fifth Application review meeting was arranged for the TBWG and the SEWG on September 22, 2005. The meeting participants received Project updates from VPA, additional to design and dredging changes described in VPA's letter to EAO of July 27, 2005. The meeting participants discussed the progress on additional work required for the inter-causeway Adaptive Management Strategy, habitat compensation measures and air quality and cumulative effects assessments. The meeting also included updates on comments received on the Application and VPA responses to comments from agencies, First Nations and the public.

A sixth Application review meeting took place on November 24, 2005. The four supporting and additional EA review documents identified above were tabled for discussion. Participants at this working group meeting also discussed the consultation process on this review material; and the finalization of the draft Assessment Report and the Comprehensive Study Report procedures under CEAA.

A seventh working group meeting was arranged on December 14, 2005. At this meeting participants discussed the public consultation process on the four supporting documents, received a report on the public open house arranged on December 13, 2005, and discussed the four documents, and progress on the DP3 review.

On January 26, 2006, participants at the eighth working group meeting discussed the results from the public comment period on the four supporting documents, the review of these documents, the commitment table that the Proponent would comply with if the Project proceeded, and the process for finalizing drafts of EAO's Assessment Report and the federal CSR.

The ninth working group meeting was held on February 16, 2006 to discuss comments on the four documents referred to above and the Proponent's commitments and assurances regarding the Project. On February 23, 2006, a tenth working group meeting was organized by conference call to continue the formulation of VPA commitments and assurances, as part of the full mitigation measures required to address any likely Project impacts. EAO thereafter continued to consult with the RAs and other regulatory agencies, as well as with First Nations, in the continuing development of the Assessment Report and attachments to the report such as the *Owner's Table of Commitments and Assurances* (*Appendix A* of this CSR).

On April 6, 2005, EAO distributed the final draft of key sections of the Assessment Report and attachments to the remaining members of the working group and to First Nations with an interest in the Project. The purpose was to obtain advisory input (as per the BCEAA section 11 Order) on the final results of the Project review, the recommended conditions for Project certification and the finalization of the Assessment Report. Discussion ensued on comments received regarding the material issued. EAO consulted with the RAs and finalized the Assessment Report in June 2006.

Final meeting notes from regular working group meetings are available on the EAO website noted above. Additional to regular working group meetings, regulatory agencies and other interested parties also met in sub-groups to discuss the development of the Habitat Compensation Plan

(HCP), the AMS and air quality impact issues. Available notes from these meetings are posted on the EAO website.

1.4.2 Public Consultation

Under section 21(1) of CEAA, for a comprehensive study, RAs must ensure there is public consultation on the proposed scope of the Project, the proposed factors to be considered in the environmental assessment, the proposed scope of those factors, and the ability of a comprehensive study to address issues relating to the Project. An invitation for members of the public to review and comment on a scoping document was advertised in community newspapers and also placed on the Canadian Environmental Assessment Registry (CEAR). The public was made aware, by way of the same advertising, of the availability of participant funding for public participation in the comprehensive study process and review of the CSR.

The notices also provided details concerning how to access the scoping document, and how to provide feedback. Copies of the scoping document were made available at local libraries. The scoping document was posted on the Proponent's website. The Participant Funding Program recipients were also confirmed on March 4, 2005. The CEA Agency provided $15,000 to two applicants to support their participation in the environmental assessment.

In their Environmental Assessment Track Report submitted to the Minister of the Environment, the RAs, in consultation with the expert federal authorities, indicated that the comprehensive study could fully address issues related to the Project. The Minister of the Environment confirmed on December 17, 2004 that the environmental assessment under CEAA would continue as a comprehensive study.

A second opportunity for public input was provided as a part of the cooperative provincial/federal review of the Project; the RAs shared the formal comment period on the Application that was used for BCEAA.

A third opportunity for public input on the Project and the associated environmental assessment is through commentary on this report. Pursuant to section 22(1) of CEAA, the CEA Agency will facilitate public access to the CSR, including administering a formal public comment period. All comments submitted will be provided to the RAs and will become part of the public registry for the Project. The RAs will be asked by the Agency to advise whether their conclusions have been altered as a result of the public comments received. This public input, along with comments received during the development of the CSR, will be taken into account by the Minister of the Environment when issuing an environmental assessment decision statement.

1.4.3 EA Review Conclusions

Part B of this report discusses the major issues arising in the course of this environmental assessment and includes working group support of the review of individual impact issues. Not all members of the working group have formulated opinions on all review comments, on the Proponent's responses to those comments, and on the conclusions drawn. At the end of each chapter in Part B there is a conclusion on the likelihood of the Project to cause significant adverse environmental effects on the specific components of the environment under consideration in that chapter. In Part C of this report, an overall conclusion regarding the significance of any likely adverse environmental effects is reached.

2. Project Description and Scope of Review

2.1 PROJECT OVERVIEW

As noted in section 1.1, VPA plans to construct an additional berth and storage yard at its existing Deltaport two-berth container terminal. The proposed third berth, known as the Deltaport Third Berth Project (DP3 or Project), is in response to industry projections that indicate that container traffic at all major container ports on the west coast of North America will double in the next 10 years, and triple in the next 20 years.

The Project consists of construction of a wharf to accommodate an additional berth, and approximately 22 hectares (50 acres) of newly created land using dredge spoil for an expanded container storage yard. It will also include dredging activities to deepen the existing ship channel and create a tug moorage area adjacent to the terminal. Rail improvements will be required within existing rights-of-way and along Deltaport Way. Road improvements on Highway 17 will be undertaken to minimize the Project impacts on existing traffic flow. The general location of the Project is depicted in Figure 1.

2.2 SCOPE OF PROJECT

The review of the Project was undertaken pursuant to the agreed federal/provincial work plan for the cooperative and harmonized Project review and assessment, and with reference to the Approved Terms of Reference (ATOR) issued to the Proponent.

The scope of Project pursuant to CEAA is the following:

Principal components for the DP3:

- construction of a fill area of approximately 22 hectares (50 acres) of land for an expanded container storage yard (dredge and fill);
- construction of a wharf to accommodate a third berth;
- expansion of the existing ship channel to the north;
- disposal of dredged material;
- creation of a tug moorage area adjacent to north side of the third berth;
- relocation of a safety boat launch (currently located on the north side of Deltaport); and
- addition of approximately 7,000 metres (23,000 feet) of rail track, which includes:
    - the extension of the Gulf Siding arrival/departure tracks from east of Arthur Drive to 64th Street, Delta (within BC Rail's right-of-way); and
    - additional track on the causeway, within BC Rail's property.

The operation of the Project's facility:

- increase in associated marine traffic (container vessels and tugs);
- increase in terminal loading and unloading equipment (ship-to-shore gantry cranes, rubber-tired gantries, rail mounted gantries, tractor trailers); and
- increase in associated road and rail traffic.

Courtesy of Vancouver Port Authority

Figure 1 Location of DP3 Project

2.3 SCOPE OF ASSESSMENT

The cooperative federal/provincial environmental assessment (EA) includes consideration of the potential environmental, socio-economic, heritage, and health effects of the Project, taking into account mitigation measures to prevent or reduce any potential adverse environmental effects.

As outlined in the scoping document the following factors were considered:

- the environmental effects of the Project, including:
    - the environmental effects of malfunctions or accidents that may occur in connection with the Project;
    - any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out; and
    - any change that the Project may cause to listed wildlife species, its critical habitat, or the residences of individuals of that species, as those terms are defined in section 2(1) of the *Species at Risk Act* (SARA), (species also include those identified by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)).
- the significance of the environmental effects referred to above;
- comments from the public;
- measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the Project;
- the purpose of the Project;
- alternatives to the Project;

- alternative means of carrying out the Project that are technically and economically feasible and the environmental effects of any such alternative means;
- the need for, and the requirements of, any follow-up program in respect of the Project;
- the capacity of renewable resources, that are likely to be significantly affected by the Project, to meet the needs of the present and those of the future;
- the effects of the Project on the environment that may impact social, economic, heritage and human health; and
- community knowledge and Aboriginal traditional knowledge.

The EA analysis under CEAA is based on the assessment scoping listed above. The Project review material is based on the selected concept of the Project, as presented in the Proponent's Application. Mitigation measures to address potential significant adverse effects of the Project are proposed in light of the Project concept presented in the Application and other review material listed in the Appendices to this report. This report addresses the best efforts in defining the *Owner's Commitments and Assurances* (see *Appendix A*) as pertinent conditions for Project certification pursuant to BCEAA. As the Project proceeds through final design and construction, some Project details may change, but the conditions reflected in this report ensure that the EA of the Project will continue to meet the intent of BCEAA and CEAA.

2.4 PROJECT JUSTIFICATION AND DESCRIPTION

2.4.1 Purpose of Project

The primary objective and purpose of the Project is to provide container terminal facilities to increase British Columbia/Canada competitiveness as a trading partner in the Pacific Northwest container market and to contribute to British Columbia and Canada employment and economic growth. According to VPA, independent market forecasts indicate that North American container volumes are expected to grow at a rate greater than that of the economy through 2020, and Pacific Northwest ports, including the Port of Vancouver, are expected to capture an increasing share of west coast traffic. The Port of Vancouver is well established as the fifth largest container port on the west coast of North America. The Port of Vancouver is positioned to realize growth through 2020.

VPA prepared a container expansion strategy in 2002 in response to potential container growth. VPA's overall expansion strategy consists of a 3-pronged approach: increasing production at existing terminals, expanding existing facilities, and exploring options for new facilities.

The rationale for the Project is further captured in the federal *Pacific Gateway Strategy* announced on October 21, 2005. The Project is also referenced in the major Gateway Program transportation infrastructure announcement the Premier of British Columbia made on January 31, 2006.

2.4.2 Project Components and Description

Wharf to Accommodate the Third Berth:
The DP3 Project is planned to handle a range of vessels including the largest 10,000 twenty-foot equivalent unit (TEU) ships currently being considered for the trans-Pacific container trade. The caisson wharf will be 427 metres (1,400 feet) long, navigable to –16 metres chart datum (CD) and will have a deck elevation of approximately +8.0 metres CD.

Container Storage Yard:
The Project includes the construction of approximately 22 hectares (50 acres) of new land for container operations and storage. This will increase the area of Deltaport from 65 hectares (160 acres) to approximately 85 hectares (210 acres). The new land was to be created through on-site dredging and landfilling operations, with soil densification required along the perimeter berm and under most new structures. However, following redesign, as was stated in a letter of July 27,

2005 from VPA to EAO, the Proponent subsequently determined that the fill for the terminal would be imported from Fraser River dredge operations and existing coastal quarries.

In the above-referenced VPA letter, the Proponent also advised that it had significantly reduced dredge volumes for terminal construction from those outlined in the Application. Based on additional engineering analysis, geotechnical investigations, and integration of environmental criteria and comments from DFO and EC, the Proponent reduced the overall dredging program from an original estimate of 3,470,000 m^3 to 853,600 m^3. The changes and reductions in the dredging program are summarized in Table 1 (this issue is also discussed in Chapter 4 – *Sediment Quality, Dredging and Ocean Disposal*).

Table 1 Comparison between original dredge volumes and revised volumes (in cubic metres)

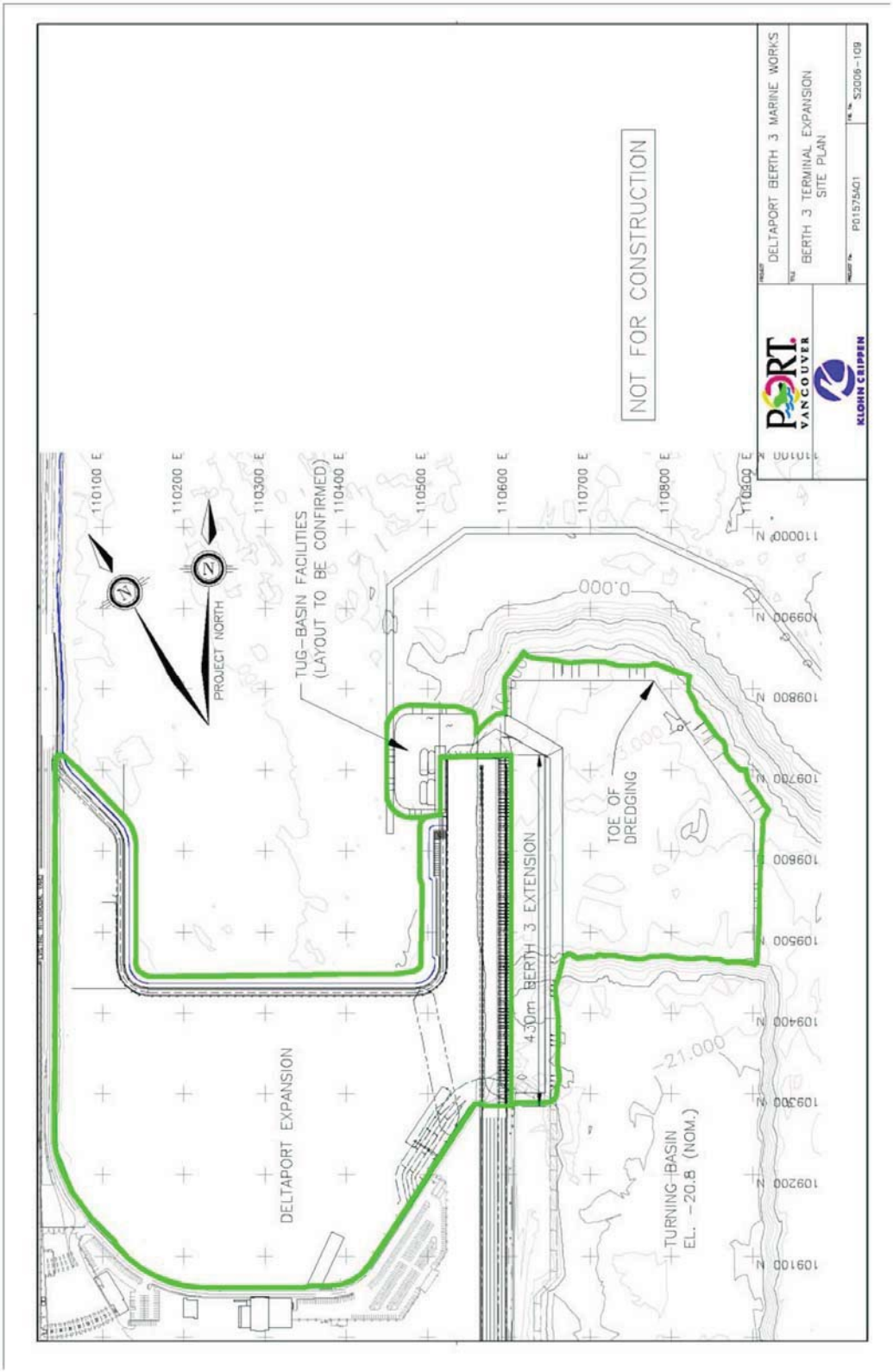
Area	Original Application Dredge Volume	Original Application Disposal Volume	Revised Dredge Volume	Revised Disposal Volume
Dredging of Turning Basin for Fill Material	2,000,000	1,000,000	0	0
Dredging under Caissons and Terminal Area (including tug basin)	1,220,000	1,220,000	603,500	300,000
Dredging of Ship Channel	250,000	250,000	249,500	175,000
TOTAL (estimated)	3,470,000	2,470,000	853,000	475,000

Terminal Infrastructure:
The terminal infrastructure is designed to support terminal operations such as loading and unloading of container ships, container storage, and container transfers to and from rail and road transport. Terminal operations will be supported by terminal components on the proposed new land and wharf for the Project including:

- paved container yard area;
- 24 reefer towers;
- truck out-gate;
- buildings;
- high mast lighting towers;
- electrical power and communication systems;
- storm sewer, sanitary sewer, water distribution and fueling facilities;
- parking;
- terminal roads; and
- rails for ship-to-shore gantry cranes.

A layout of the terminal and infrastructure is depicted in Figure 2.

Tug Moorage and Boat Launch:
The tug moorage area currently located at the northeast corner of the existing Deltaport terminal will be relocated to the northern corner of the third berth. The safety boat launch, currently located in the Deltaport terminal tug moorage area, will be relocated as part of the Project. The original Application concept layout for the tug moorage basin and safety boat access area was to consist of a floating dock, walkway and dredged channel to allow for tug



Courtesy of Vancouver Port Authority

Figure 2 DP3 Project site plan

access. The original tug basin layout had an impact area of 2.6 ha. The Proponent, working with the tug operating company, reviewed design alternatives and the tug basin area was reduced from 2.6 to 1.19 ha in size and the dredge elevation was raised from –6.5 to –6.0 m CD, further reducing dredge volumes. An additional advantage of the reduced tug moorage basin layout is that the existing crest protection can remain in place mitigating potential morphological changes. Further, the tug facility can, according to VPA, also be installed in its permanent location from the start of Project construction. An outline sketch of the tug basin relocation is shown in Figure 3.

Ship Channel:
The existing ship access channel will be extended 350 m to an elevation of approximately –16 metres CD to provide access and adequate draft for container ships.

Rail Components:
Preliminary analysis by VPA indicates that there will be a requirement for approximately 23,000 feet of additional railway track for the Project. This railway track will be located on the causeway and at the Gulf Siding (located south of Deltaport Way) by extending the arrival/departure tracks. All of the rail improvements will be constructed within BC Rail's property on the Roberts Bank causeway and within its existing Gulf Siding right-of-way. The 57B Street at-grade crossing south of Deltaport Way is proposed to be closed to accommodate longer container trains using the extended arrival/departure tracks at the Gulf Siding. This closure will require approval from the Corporation of Delta with input from the various stakeholder groups such as the Delta Farmers' Institute and local residents. Closure of rail crossings is further discussed in Chapter 12 – *Socio-community Issues and Economics*.

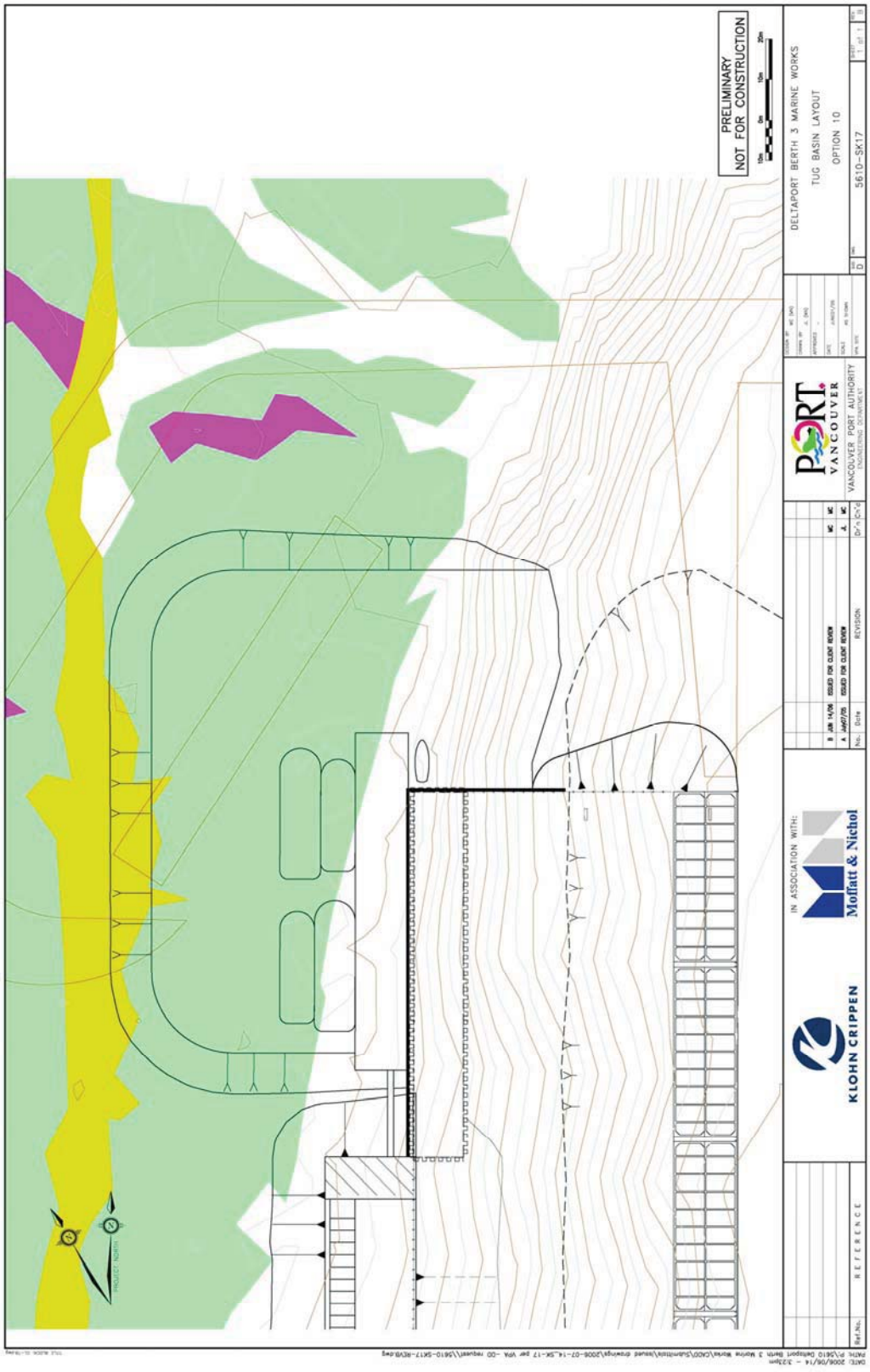
Road Components:
No new road infrastructure along Deltaport Way will be required to support the increased traffic predicted as a result of the Project. With VPA as the funding source, the Ministry of Transportation (MOT) has agreed to implement a number of improvements along Highway 17 to mitigate the impact of additional DP3 container truck traffic. The proposed closure of the 57B Street at-grade crossing south of Deltaport Way is discussed as a rail component since the closure is required to accommodate longer container trains.

Marine:
In 2003, Deltaport recorded 365 vessel calls (container ships that berthed at Deltaport). Vessels ranged in size from 1,600 TEU to 6,300 TEUs with the average size being approximately 4,500 TEUs. Marine traffic at Deltaport is projected to change both in number of vessel calls and in vessel size over the next 20 years. Based on preliminary research carried out by VPA, it is expected that the number of vessel calls will increase to approximately 393 per year at full capacity in 2012. In the long term, it is expected that the size of vessels will continue to increase and at some point, vessels as large as 10,000 TEUs will call at Deltaport.

Site Services:
Construction of new site services for the Project will be limited to on site works (electrical, sewers and water), as the existing Deltaport site services (including electrical, sewage treatment and water) are adequate to meet Project needs with appropriate tie ins to the new Project areas.

Terminal Equipment:
New equipment proposed for the Project includes 3 ship-to-shore gantry cranes, 10 to 12 rubber-tired gantries (RTG), 1 rail mounted gantry (RMG), numerous tractor trailers, and other related equipment.

Security:
VPA is required, for all its container terminals, to meet the International Ship and Port-facility Security (ISPS) Code established July 1, 2004. As such, the Project will be designed and operated to meet the latest security standards.



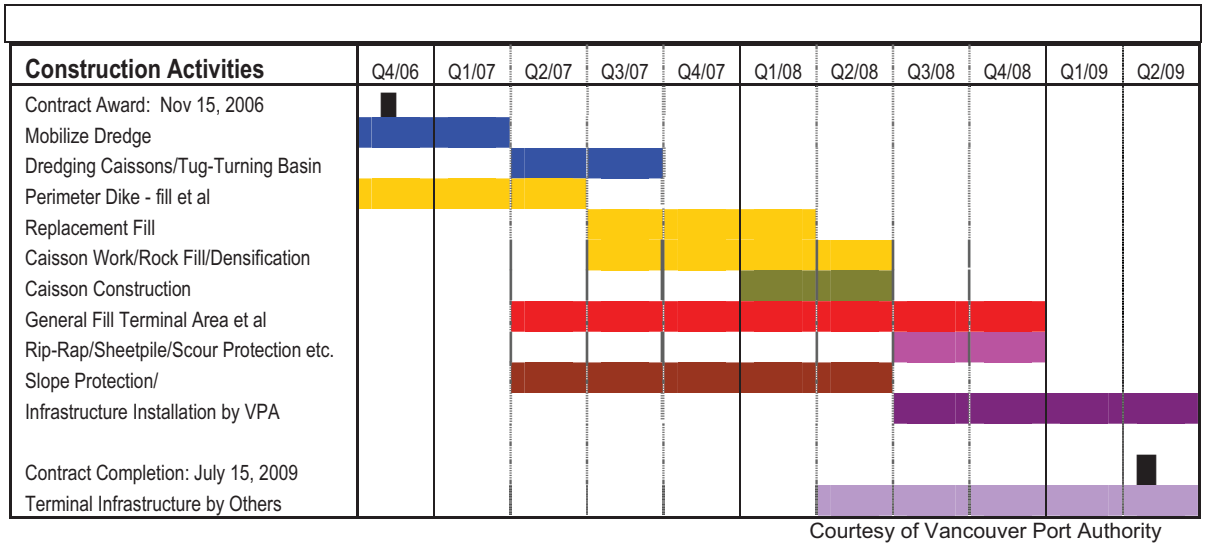
Courtesy of Vancouver Port Authority

Figure 3 Re-positioning of the tug basin

2.4.3 Project Construction

Approximately 249,500 m^3 of material will be dredged to create the ship channel and an additional 603,500 m^3 will be dredged to accommodate the caissons associated with the third berth. Material unsuitable for use as fill will be pumped and disposed of at the nearby Roberts Bank designated disposal at sea site. The material disposed of at sea will comply with the *Disposal at Sea Regulations, 2001*. The additional railway track on the causeway and at the Gulf Siding (located south of Deltaport Way) will be constructed by BC Rail.

VPA assumes that it will commence construction at Roberts Bank in November 2006 and have the Project completed in July 2009. A tentative construction schedule is depicted in Figure 4.



Courtesy of Vancouver Port Authority

Figure 4 Tentative Project construction schedule

2.4.4 Project Capital Cost and Job Creation

The Proponent estimates the capital cost of the Project to be about $272 million. Employment opportunities associated with DP3 were estimated by the Proponent, and include approximately 640 person years of direct jobs during construction and approximately 360 direct full-time-equivalent (FTE) jobs per year during operation. VPA estimates that each container that passes through Deltaport generates $450 in wages, $550 in gross domestic product (GDP) and $1,200 in economic output. These benefits will increase with the development of the proposed Project.

2.4.5 Project Operations

Deltaport operations consist of the loading and unloading of container ships, container storage, and container transfers to and from rail and road transport. The container ships are loaded and unloaded by electric powered ship-to-shore gantry cranes that are rail mounted at the berth face. After the containers are unloaded from the ships, the containers are moved by tractor trailers to the container storage yard and stacked by RTG. The tractor trailers and the RTGs are powered by diesel engines. The containers will be stacked to a maximum of five high in the storage yard. After a brief storage period, the containers are loaded onto trucks for road transport or onto yard based tractor trailers, which will move the containers to the existing Deltaport intermodal yard for rail transport. Electrified RMG are used in the intermodal yard to load the containers onto the rail cars.

Throughout this report, container industry statistics are presented as container volumes, which are measured in TEUs, or twenty-foot equivalent units. The proposed Project will increase the capacity at Deltaport from a current operating capacity of 900,000 TEUs per annum to 1.3 million TEUs per annum. The Deltaport Third Berth Project is planned to handle a range of vessels

including the largest (10,000 TEU) ships currently being considered for the trans-Pacific container trade.

2.5 APPLICATION FOR PROJECT ENVIRONMENTAL ASSESSMENT

The Proponent has submitted an Application and other supporting review material for an environmental assessment certificate under BCEAA. The Project must also undergo a comprehensive study under CEAA before DFO can grant an authorization under the *Fisheries Act* and Environment Canada can issue a disposal at sea permit under CEPA 1999. The Project has been subject to a cooperative federal/provincial review process.

The Proponent must obtain or meet the intent of the following regulatory approvals:

- Project certification under BCEAA;
- Section 35(2) authorization under the *Fisheries Act* for any works or undertakings in or around water bodies that might result in the harmful alteration, disruption or destruction of fish habitat;
- *Canadian Environmental Protection Act, 1999* section 127(1) permit authorizing the disposal at sea of dredge spoil from the Project site or other underwater excavations and dredging;
- Section 14 permit under the British Columbia *Heritage Conservation Act*;
- Section 9 approvals under the British Columbia *Water Act* for any changes in and about a provincial watercourse or water body;
- Corporation of Delta permits, including those related to the design advisory process, construction approval process and applicable bylaws such as those concerning noise, hours of work, street access and traffic disruption; and
- All relevant permits, licenses, approvals or any other authority under any other enactment that may be required by the federal, provincial and local governments or their agents for construction and operation of the Project.

3. Information Distribution and Consultation

3.1 ACCESS TO REVIEW DOCUMENTATION

The EAO maintains an electronic Project Information Centre (ePIC) (formerly known as the Project Registry) in Victoria for the purpose of facilitating public access to records relating to EA and Project reviews. In addition, records and documents related to the review of the Project have been posted on the EAO's website http://www.eao.gov.bc.ca.

The Application, including the supporting 11 Technical Volumes, once accepted for formal review, was made available at the Delta Pioneer Library in Ladner, the George Mackie Library in Delta, the South Delta Library in Tsawwassen, the Cloverdale Library in Surrey, the Strawberry Hill Library in Surrey and the Langley Library in Langley. The public was encouraged to visit the Proponent's Project office in Vancouver to see review material. These review options were referred to in the notifications issued to the public (see section 3.2).

During the review of the Application and supporting documents, EAO made available the 4 review documents discussed in section 1.4.1 available to the public for comment. These documents were posted on the EAO website and paper copies were made available at libraries in the Project area.

Under CEAA, a public registry was established (available at: http://www.ceaa-acee.gc.ca/050/index_e.cfm) concerning DP3 – CEA Registry Reference Number – 04-03-3734, to ensure that the public was or will be provided with an opportunity to review the following:

- the notice of commencement of the environmental assessment;
- the description of the scope of the Project being assessed and the scope of the assessment;
- the notice of decision to continue as a comprehensive study;
- a copy of the CSR (and how a hard copy may be obtained);
- the RAs' decision on the environmental assessment; and
- details on any follow-up programs to be implemented as part of the EA.

3.2 NOTIFICATION

3.2.1 Public Review of Application and Technical Volumes

Pursuant to the BCEAA section 11 Order, EAO arranged for the following notification that the VPA Application had been filed with the Province and that a public review of the Application was to be conducted:

- *Vancouver Sun*: February 14, 2005;
- *South Delta Leader*: February 18, 2005;
- *Delta Optimist*: February 16, 2005;
- *Langley Times*: February 16, 2005;
- *Surrey Leader*: February 16, 2005; and
- Notification on the EAO Website on February14, 2005.

On February 15, 2005 the public could also access the DP3 Application and supporting Technical Volumes on VPA's Project website. In addition, the website provided details on the review process and links to the EAO website.

An information letter was issued by VPA to individuals and organizations (approximately 450) on its Project database to inform them about the EA and public comment period. This letter included

details on where individuals could get a copy of the Application and how they could submit comments to the harmonized review.

To inform the public on the cooperative environmental assessment of the Project, public information sessions, with public presentations, were arranged at the Delta Town and Country Inn on March 16, 2005 and April 12, 2005, and at the Coast Tsawwassen Inn on May 5, 2005. A supplementary public meeting, providing Langley residents with the opportunity to raise rail crossing concerns, was arranged at the Newlands Golf and Country Club on May 11, 2005. This arrangement required EAO to issue a section 13 Order under BCEAA, dated May 4, 2005, to inform the public about the second comment period to capture comments resulting from the Langley event. Advertisements were also placed in the above-referenced media on dates shown in Table 2. These open houses and public meetings provided the public with information on the Project and public comment process relating to the review of the Application.

Table 2 Advertisements for the public information events

Public Information Event	**Media**	**Dates**
March 16, 2005 Public Open House, Delta	*South Delta Leader* *Delta Optimist* *Langley Times* *Surrey Leader* *South Delta Leader* *Delta Optimist* *Langley Times Surrey* *Surrey Leader*	March 4, 2005 March 5, 2005 March 5, 2005 March 6, 2005 March 11, 2005 March 12, 2005 March 12, 2005 March 13, 2005
April 12, 2005 Public Open House and Public Meeting, Delta	*South Delta Leader* *Delta Optimist* *Langley Times* *Surrey Leader* *South Delta Leader* *Delta Optimist* *Langley Times* *Surrey Leader*	April 1, 2005 April 2, 2005 April 3, 2005 April 3, 2005 April 8, 2005 April 9, 2005 April 10, 2005 April 10, 2005
May 5, 2005 Public Meeting, Tsawwassen	*South Delta Leader* *Delta Optimist*	April 29, 2005 April 30 and May 4, 2005
May 11, 2005 Public Meeting, Langley	*Langley Times* *Langley Advance*	May 8, 2005 May 6, 2005

VPA also issued an Application review notification in its March 2005 newsletter. The purpose of the newsletter was to provide the public with an update on the Project, to inform people of the public comment period, and to advertise the public events. The newsletter was sent to individuals and organizations on VPA's Project database and also distributed through a Canada Post mail drop to over 34,000 residents and businesses in Delta.

3.2.2 Public Review of New and Amended Review Material

As discussed in section 1.4.1, VPA provided amendments to Application chapters on air quality assessment and cumulative effects assessment, as well as new material on habitat compensation measures and an Adaptive Management Strategy for the Roberts Bank inter-causeway area.

EAO and the RAs decided to provide the public with the opportunity to review and comment on these 4 documents, thus EAO issued a section 13 Order to that effect on December 1, 2005, providing the public with a 32-day public comment period. A public meeting was arranged at the Coast Tsawwassen Inn on December 13, 2005, providing the public with the opportunity to discuss the 4 referenced documents. A notification to this effect was advertised in the *Surrey Leader* on December 9, 2005 and in the *Delta Optimist* on December 3, 2005 and December 10, 2005. An Information Note to this effect was posted on EAO's Project website on December 2, 2005. The provincial section 13 Order was amended on December 12, 2005, providing 9 more days for public comments on the 4 documents, closing on January 25, 2006.

3.3 CONSULTATION

3.3.1 Public Consultation Measures Undertaken by the Proponent

The geographic focus of the public information and consultation program for the DP3 Project was within the Corporation of Delta and surrounding communities, including the Tsawwassen First Nation reserve.

3.3.2 Proponent Consultation Prior to Application Submission

General

Starting in the spring of 2003, the VPA public consultation process for DP3 proceeded through an Early Notification Phase to a Pre-Application Phase in the summer and fall of 2004. Further details of these two initiatives are presented below.

The consultation process by the Proponent followed the essential elements of the EAO's public consultation policies. The goals of the VPA public consultation program were to ensure that:

- the public was consulted, on both a regional and a community/neighbourhood level, consistent with BCEAA and CEAA requirements;
- the review process was open, accountable and considered regional and local/community interests;
- community support for the overall Project planning process was fostered; and
- existing relations with local communities were strengthened.

VPA submitted a *Consultation and Communications Plan* for the Roberts Bank Container Expansion Program to EAO in June 2003. This plan included an overview of the VPA's proposed program for the time period between 2003 and 2009 and was endorsed by the working group in July 2003.

The stated VPA objectives for the consultation and communications program included the following, as relevant to the Project's cooperative federal/provincial assessment:

- raise public awareness about the scope, necessity, and benefits of the Roberts Bank Container Expansion Program;
- offer a consultation program which is flexible and responsive to the changing needs of interested parties;
- identify interested parties and their Project concerns early on in the planning process;
- identify public issues and interests pertaining to potential environmental, economic, social, heritage and health impacts and benefits of DP3;
- demonstrate how public input contributes to the Project's development; and

- inform interested parties in a timely manner about the results of technical studies, the proposed design for the Project, and possible mitigation measures for the construction, operation and maintenance of the Project.

Information Materials Distributed
Since the inception of Project planning in April 2003, the following VPA information materials were developed and shared with interested parties and the public: (i) 3 program newsletters; (ii) 5 information sheets; and (iii) 2 sets of poster boards for public open houses.

Newsletters regarding the Roberts Bank Container Expansion Program were developed and distributed in May 2003, November 2003, and July 2004. The May 2003 newsletter provided an introduction to the container expansion program, including rationale and benefits. It included details on the proposed DP3 schedule and studies, the regulatory review process, as well as dates and locations of the upcoming public open houses. The November 2003 newsletter provided an update, including findings from the May 2003 open houses. It also included details on the environmental and transportation studies underway, and the locations of libraries holding the DP3 Project public resource files. The July 2004 newsletter provided a program update, including findings from the June 2004 VPA open houses, and a preliminary description and preferred site for the Project. It also included details on the regulatory review process, environmental impact assessment studies and road and rail transportation issues.

In an effort to share Project details with interested parties, 5 information sheets were developed by the Proponent and distributed at public open houses. Topics included:

- proposed socio-economic studies (May 2003 open houses);
- proposed environmental studies (May 2003 open houses);
- proposed physical and engineering studies (May 2003 open houses);
- regulatory review process (May 2003 open houses); and
- update on impact assessment studies (June 2004 open houses).

The information sheets were also distributed to individuals and organizations, as requested, and subsequent to the open houses, they were posted on the Proponent's website.

Poster boards were developed and presented at the May 2003 and June 2004 public information events. As well, additional materials, including maps and VPA brochures, were made available at the events.

Communication
Program Information Line
A program telephone information line (604.665.9337) was established in late April 2003 to enable interested parties to provide input, ask questions and/or request information from VPA regarding expansion of the container port at Roberts Bank. The voicemail received on the line was monitored daily (Monday – Friday). An outgoing message provided callers with updates on the program as well as the website address. The telephone information number was referenced in communications materials, including newsletters, info sheets and advertisements. Questions or requests for information were responded to by VPA.

Program Website
A Roberts Bank Container Expansion Program page has been established and maintained on the VPA website www.portvancouver.com/container_expansion which provides information to the public. As new communications and technical materials have been developed, the site has been updated and includes the additional information on DP3. Specifically, the site includes information on the regulatory process, the Application, public consultation details, Project studies and design developments, Project maps, and frequently asked questions.

T2 is on separate website at http://www.portvancouver.com/the_port/terminal2.html, which states "The Port has not advanced the Terminal 2 proposal beyond the point of identifying a potential site location and desired capacity. The terminal configuration, on-site services, and offsite road and rail requirements have not been established and will require extensive studies before they can be confirmed."

Media Relations Program

A targeted program of outreach to various media outlets was initiated in March 2003 regarding the Roberts Bank Container Expansion Program and continued through the pre-application phases. The program focused on local media in the vicinity of the DP3 Project. The two key local news outlets are the bi-weekly *Delta Optimist* and the weekly *South Delta Leader*. Media briefings were arranged in March 2003 with the *Optimist* and the *Leader* resulting in detailed coverage. The Delta newspapers were also contacted in advance of the May 2003 open houses. Both of them sent reporters to the open houses and carried additional coverage shortly thereafter.

Public Consultation

Open Houses

The 4 open houses hosted by the Proponent before the Application was filed (pre-application consultation) had attendance levels of more than 385 people. A number of the same individuals attended both the 2003 and 2004 events. Twenty-seven comment forms were received at the May 2003 open houses and 54 were received at the June 2004 events.

Participation at Meetings and Presentations

In May 2003, and again in November 2003, approximately 100 letters were sent by the Proponent to ratepayers associations, environmental organizations, Delta business and social associations and resource industries (agriculture and fishing). These letters provided information on the Roberts Bank Container Expansion Program and invited representatives of these organizations to meet with the Proponent to learn about the Project and discuss issues of interest to them. The Proponent and/or its technical consultants conducted more than 18 meetings/presentations with interested organizations and individuals.

Participation via Correspondence and Telephone Calls

During the pre-application phases of the consultation program, more than 100 pieces of correspondence were received and responded to by VPA, either via mail, fax or email. Also, more than 70 telephone calls were received on the program information line and responded to by VPA. Some individuals and organizations have regularly corresponded with, or telephoned, VPA and their requests for information have, according to VPA, been attended to.

Issues Raised by the Public

The issues raised by the public during the pre-application consultation phase are outlined as follows:

- regulatory framework;
- information distribution and consultation;
- Project rationale;
- alternatives to the Project;
- Project description;
- Project location;
- capital costs;
- off-site facilities (transportation requirements);
- construction phase;
- operations phase;
- environmental assessment methodology;
- review scope and study area;
- impact assessment methodology;

- air quality;
- coastal geomorphology;
- socio-economic impacts;
- visual and light;
- noise;
- water quality;
- sediment quality;
- marine environment;
- waterfowl and coastal seabirds;
- terrestrial wildlife;
- traffic;
- health;
- emergency services;
- land use;
- environmental management, mitigation and compensation;
- effects of the environment on the project; and
- cumulative effects assessment.

3.3.3 Proponent Consultation Following Application Submission

Following the submission of the Application in January 2005, VPA assisted the harmonized review in advertising the availability of the Application for public review, and providing notification of the public comment period. Further, VPA supported the harmonized review by responding to public inquiries at 3 public consultation events in Delta and one in Langley (see section 3.2 above).

The Proponent attended the 3 Delta meetings and provided its key consultants for the benefit of the public attending these events and for discussions of issues raised by the public. VPA also attended the special public event in Langley on May 11, 2005 to allow Langley residents to inform federal agencies and VPA on the rail issues. Further details of the public consultation undertaken during the first 2 public comment periods are included in a VPA report provided to the harmonized review dated October 20, 2005 (Summary of Public Consultation Activities and Input Application Review Phase 24 February 2005 to 31 August 2005 for the Deltaport Third Berth Project Roberts Bank Container Expansion Program). A summary of consultation measures follows.

The objectives of the consultation and communications program for the Application Review Phase were to:

- provide information regarding the Project and the Environmental Assessment Certificate Application;
- conduct discussions with interested parties and the broader public regarding issues, as well as opportunities to avoid or minimize adverse effects, where possible;
- respond to issues raised with the EAO during the formal public comment periods; and
- continue to obtain and record input.

The following materials were used to notify and inform stakeholders in Delta and other municipalities in Greater Vancouver of the availability of the Application, opportunities for input, details of public events, and other Project information:

- harmonized review public comment period notice;
- information letters;
- Project newsletter;
- public event advertisements;
- information advertisement; and
- information sheets.

Information letters were sent by VPA on February 15, 2005 to over 700 individuals or organizations on the Project database to inform them of the availability of the Application and the formal public comment period. The letter included information on the EAO public comment period and details on where individuals could view a copy of the Application and how they could submit their comments.

A newsletter was provided to the public with an update on the Project, including summaries of the impact assessment findings. It also included information on the public comment period on the Application and details of the March 16, 2005 public open house and the April 12, 2005 public open house/information meeting. The newsletter was sent the week of March 7, 2005 to over 700 individuals or organizations on the Project database and was mail dropped via Canada Post during the same time period to over 34,500 residences, farms and businesses in Delta.

The public comments on the Application are summarized in section 3.4 below. VPA provided written responses to all public comments on the Application and the Technical Volumes, including comments from stakeholder groups, and provided presentations to and responses to inquiries from municipalities and municipal organizations. The Proponent also continued to meet with municipalities, public interest groups and other stakeholders following Application submission.

Information letters were sent by VPA on December 5, 2005 to over 700 individuals or organizations on the Project database to inform them of the availability of the four supporting documents submitted by VPA to EAO, the third formal public comment period and the December 13, 2005 public open house in Delta.

During the third formal EAO public comment period on the 4 supporting documents, the Proponent also engaged the public actively in the community, attending the open house in Tsawwassen on December 13, 2005 and the public meeting organized by the stakeholder group Against Port Expansion in Delta on January 18, 2006.

The Proponent's commitments to liaising with the public during DP3 final design and construction are further confirmed in *Appendix A* and Part B of this report.

3.3.4 Public Consultation Measures Undertaken by EAO and the RAs

Representatives of EAO and the CEA Agency attended a number of the Proponent's open houses during the pre-application consultation period in 2003-2004. The EA process pursuant to the harmonized review process was presented and questions from the public were responded to. From April 2003 until the Application was submitted in January 2005, the EAO entertained a number of requests from the public and interest groups for Project material and a description of the EA process. EAO and CEA Agency frequently met with the Proponent to discuss a targeted public consultation process pursuant to government policy and regulation. All relevant Project material was posted on the EAO's Project website. This process started with the issuance of the section 10 Order on March 18, 2003.

The EAO, CEA Agency and RAs participated in the public meetings described in section 3.3.3 above and discussed the Project and its EA with the public. EAO and CEA Agency also followed up with written responses to issues raised by the public. EAO acknowledged directly to the submitters the receipt of all public comments, shared all comments with the RAs and the CEA Agency, and forwarded such comments to the Proponent for individual responses.

During the harmonized review, the EAO, CEA Agency and RA's shared review material and process details, such as the temporary suspension of the review timeline, directly with interested public stakeholder groups.

The RAs also acknowledge that numerous letters and emails were received by federal agencies during the review. This correspondence was considered in the RA's assessment of potential adverse environmental effects for the Project.

3.3.5 First Nations Consultation

General

This section of the report generally describes the nature of the consultations that took place among First Nations, the Proponent, the EAO and the RAs concerning the DP3 Project. For the RAs, these consultations were a source of information about the effect of any changes in the environment, caused by the Project, on the current use of land and resources by Aboriginal persons for traditional purposes. The results of those consultations are discussed in Chapter 19 – *First Nations Considerations and Interests*. The potential adverse effects of the Project on the current use of lands and resources by Aboriginal persons for traditional purposes are also discussed in relevant bio-physical and socio-community sections of Part B.

Consultation Prior to Application Submission

DP3 falls within the asserted traditional territories of the following First Nations groups, as referenced in section 1.4.1 of Part A of this report:

- Tsawwassen First Nation;
- Musqueam Indian Band;
- Katzie First Nation;
- Sto:lo Nation;
- Semiahmoo Nation;
- Sencot'en Alliance; and
- Hul'qumi'num Treaty Group.

Early in the Project planning process, the first 5 First Nations referenced above were identified by the EAO and VPA as the First Nations with whom consultation efforts should be undertaken because their communities or asserted traditional territories are situated within the vicinity of the proposed Project site. The asserted traditional territories for each of the first 4 First Nations are depicted in the maps contained within those First Nations Statements of Intent filed with the British Columbia Treaty Commission.

Early in the Project review process (April 2003), EAO sent letters to the first 5 identified First Nations referenced above advising them of the Project and the harmonized EA review process under BCEAA and CEAA. Those letters solicited information on the First Nations' interest in the Project, and invited them to participate in the harmonized EA review working group. The letter also asked those First Nations how they wished to be consulted about the Project. The EAO and RAs subsequently met with the same First Nations to discuss the Project and the harmonized EA pursuant to BCEAA and CEAA. Throughout the harmonized EA review, the EAO and RAs have made all documents relevant to the Project available to the identified First Nations, either by electronic mail, by fax or by courier/surface mail. At the end of the pre-application phase, but before the VPA submitted its Application, the EAO was also alerted to the potential interest of the Sencot'en Alliance in the EA review of the Project. During the late summer of 2004, the Semiahmoo Nation advised the EAO that further consultation with it on the Project should be directed to the Sencot'en Alliance, of which it is a member nation.

The Sencot'en Alliance, comprised of the Semiahmoo, the Tsartlip, the Tsawout and the Pauquachin First Nations, is – as a group – not yet in the British Columbia Treaty Process. However, acknowledging the Semiahmoo's asserted use of Roberts Bank land and resources, the EAO and RAs initiated consultation with the Sencot'en Alliance in November 2004.

The Proponent initiated an extensive Pre-Application Consultation Process early in the Project review, designed to identify concerns and interests of First Nations potentially affected by the

proposed Project. The First Nations consultation and communication framework implemented for the DP3 Project was developed by the VPA in conjunction with the EAO and RAs. The consultation program was based on VPA's *First Nations Consultation and Communications Plan* provided to the harmonized review working group in June 2003.

The development of the VPA consultation program was based on a number of principles central to the First Nations consultation policies of the provincial Government. In keeping with those policies, the consultation approach taken by VPA would:

- include First Nations in identification and design of a meaningful First Nations consultation plan;
- be flexible and designed to meet the needs of each First Nation;
- be inclusive of all First Nations that identified that their interests may be affected by the Project;
- provide an opportunity for First Nations to effectively participate; and
- promote accountability.

The Proponent undertook two pre-Application consultation phases as follows:

Phase I: Early Notification (Spring 2003)
The main objectives for this phase were to notify Chief and Council of the Project by letter; to conduct telephone discussions with them to identify First Nation interests and issues associated with the Project; to establish a relationship with the administrative contact person for each First Nation for the distribution of Project information; and to meet with Chiefs and Councils to provide them with an overview of the Project and obtain from them more details of First Nation interests, and to receive direction from First Nations on how they wish to see future consultation sessions to proceed.

Phase II: Pre-Application (Summer 2003 – Fall 2004)
The main objectives for this phase were to present more detailed technical information about the Project (as it became available) and to solicit input on it through an agreed-upon process to provide regular Project updates to the communities or Band Councils, to respond to Project inquiries, to continue to identify issues and provide responses, and to continue to document and summarize input received.

The Proponent also anticipated that the Tsawwassen, Musqueam, and Katzie First Nations would continue to engage in consultation meetings with VPA representatives to:

- identify any asserted Aboriginal rights which may be potentially affected by the Project, as identified in studies or Project background material developed during the pre-application stage and shared with First Nations; and
- suggest actions and measures to be taken to avoid, mitigate or, where appropriate, otherwise accommodate Aboriginal interests.

The Sto:lo Nation requested information updates from VPA on the Project; the Proponent maintained regular contact with this First Nation. VPA first met with the Sencot'en Alliance in December 2004, when they raised issues with the Project and requested copies of the Application.

The Proponent's consultation chronology demonstrates a significant effort to engage the identified First Nations that assert they have Aboriginal rights or title in the Project area. Apart from the Tsawwassen First Nation, there was limited response from First Nations during the early consultation phase (i.e., prior to the Proponent submitting its Application to EAO in January 2005). Although VPA had concluded agreements with the Tsawwassen First Nation, the Musqueam Indian Band and the Sencot'en Alliance for their participation in the EA review

process, only the Tsawwassen First Nation attended working group meetings during the pre-application phase. Representatives from the other First Nations did not attend any pre-application meetings. While these First Nations have indicated that they continue to enjoy traditional practices in and adjacent to the Project area, they have not indicated how the Project will impact those activities.

VPA provided funding support for those First Nations which expressed an interest in reviewing the Application. VPA met with the Tsawwassen First Nation, Musqueam Indian Band, Katzie First Nation, Sto:lo Nation, Sto:lo Tribal Council, Semiahmoo Nation, and Sencot'en Alliance during the pre-application phase of the DP3 Project in 2004. The Tsawwassen First Nation, Musqueam Indian Band and the Sencot'en Alliance (which includes the Semiahmoo Nation) requested, and received, funding from VPA to provide capacity for participation in the Application review process.

Consultation Following the Submission of the Application

The EAO and federal agencies, with the support of VPA, continued their efforts to engage First Nations during the review of the Application and other relevant Project EA material distributed to the members of the working groups, including the First Nations identified above. EAO notified all First Nations of the DP3 harmonized review process pursuant to BCEAA and CEAA and, invited the First Nations to the review meetings described in section 1.4.1 above. All of the identified First Nations as referenced in section 1.4.1 of Part A of this report were provided with meeting notes and agendas for future meetings.

The Proponent offered to provide funding to First Nations to enable them to participate in the harmonized environmental assessment of the Project. Funding agreements were made between the Proponent and the Tsawwassen First Nation, the Musqueam Indian Band and the Sencot'en Alliance. The Hul'qumi'num Treaty Group has not yet accepted the Proponent's offer to provide funding. The funding agreements in place with the other First Nations contemplate that those First Nations would: (i) review the Application; (ii) continue to consult with the Proponent; (iii) provide comments to EAO; and (iv) participate in the harmonized EA review, within the timelines agreed to by EAO, by identifying how their asserted Aboriginal rights may potentially be adversely affected by the Project by suggesting measures to be taken to avoid or mitigate those adverse effects. and where those adverse effects cannot be avoided or mitigated, by suggesting how the First Nations may be accommodated for those adverse effects on their Aboriginal rights.

Following Application submission by VPA in early 2005, the Hul'qumi'num Treaty Group expressed an interest in the Project. VPA met with the Hul'qumi'num Treaty Group and offered similar capacity funding to support a review of the DP3 Project. VPA is awaiting formal acceptance of the offer of funding support from the Hul'qumi'num Treaty Group.

As part of this process, the Proponent contacted each First Nation with an offer to meet to review the Application and to discuss matters of interest and concern to the First Nation. Based on these meetings, the First Nations were able to better define the issues which they wished to address in their comments to the EAO.

As discussed above, the Sencot'en Alliance has been added to the working groups and has received all review documents and relevant EA correspondence on the Project. The EAO and federal authorities met with executives of the Sencot'en Alliance and their Administrator on July 21, 2005 to discuss DP3 and the Project's potential impacts on asserted traditional use of resources at Roberts Bank. EAO also met with the Sencot'en Alliance Administrator and EA consultant in Vancouver on December 6, 2005 to discuss the Project review and consult on Sencot'en Alliance issues relating to the Project.

VPA and EAO were also alerted to the Hul'qumi'num Treaty Group's (HTG) interest in the Project. EAO and VPA contacted the HTG's Chief Treaty Negotiator in January 2005 and provided the Application to the group for its review. The HTG, comprising the Chemainus, Lyackson, Penelakut, Hait, Lake Cowichan and Cowichan First Nations, all Vancouver Island

based, are engaged in the British Columbia Treaty process and has filed a Statement of Intent. The HTG was invited to be part of the Project working groups and has also received all subsequent Project review material and correspondence. EAO and VPA met with the HTG in Victoria in May 2005 and EAO, VPA and federal agencies met with the HTG in Ladysmith on July 28, 2005 and September 27, 2005. Federal agencies met with the HTG on May 31, 2006 to discuss the harmonized environmental assessment and potential effects of the Project on their asserted Aboriginal rights.

Following the separation of the Sto:lo Tribal Group from the Sto:lo Nation both organizations have been provided with the materials relating to the harmonized environmental assessment of the Project.

The following comments on the Application, the Technical Volumes, and additional Project material issued for comments in December 2005, were provided by First Nations to EAO:

- First preliminary comments by the Sencot'en Alliance, dated 19 May 2005;
- Second preliminary comments by the Sencot'en Alliance dated June 13, 2005;
- Preliminary comments by the Hul'qumi'num Treaty Group dated July 28, 2005;
- Third preliminary comments by Sencot'en Alliance dated January 24, 2006;
- Tsawwassen First Nation comments dated July 5, 2005 and February 13, 2006; and
- Final Project review comments by the Sencot'en Alliance, dated March 24, 2006.

VPA has provided responses to these comments. EAO has solicited input from the Sencot'en Alliance and the Hul'qumi'num Treaty Group and requested these First Nations to identify any adverse effects the DP3 Project may have on their asserted Aboriginal rights that could not be reasonably exercised after the construction of the Project.

Details of issues raised and VPA's responses to First Nations' concerns, and those reflected in mitigation and accommodation measures, are covered in Part B of this report.

3.4 RESPONSES AND RESULTS FROM PROJECT'S PUBLIC CONSULTATION

3.4.1 Public Consultation on Application

The public was invited to provide comments to EAO on specific public issues as they relate to the technical review of the Application and the Technical Volumes. The first public comment period ran from February 24, 2005 until May 9, 2005. A second formal public comment period, tailored to the Langley open house on May 11, 2005 was conducted in the period of May 11-18, 2005. EAO received a total of 607 comments by letter, fax or email concerning the review documents during the public comment periods. A breakdown of public comments is presented in Table 3.

Table 3 Summary of public comment submissions

Type of Submission	Number of Submissions
Individual signed letters or emails	236
Four different form letters or emails:	
• Including selected individual comments	18
• Signed, prepared forms	171
• Ibid, but with some comments	159
• Form emails	23
Total of form letters and form emails	371
Grand Total	**607**

Most of the form letters and form faxes described in the table above (171+159 = 330) pertain to the railway crossings and associated impact issues in Langley. The majority of the individual letters and emails noted in Table 3 also pertained to rail issues in Langley. In spite of the Project scoping as a non-linear Project, the EAO and CEA Agency agreed to conduct a special public meeting in Langley to provide the opportunity for the local residents to discuss their concern with the regulatory agencies and the VPA. That decision was prompted by the level of Langley public interest and not a result of Project re-scoping.

Included in the submission referenced in Table 3 above, were a number of sets of comprehensive comments provided by interest groups such as:

- Boundary Bay Conservation Committee;
- Federation of BC Naturalists;
- BC Great Blue Heron Society;
- West Panorama Ridge Ratepayers Association; and
- Delta Farmers' Institute.

Their submissions are posted on the EAO Project website and included in the CEAA project file. The Proponent also provided individual responses to these interest groups and these responses were posted on the EAO website.

The Proponent emailed and mailed a circular dated August 31, 2005, to all members of the public who commented on Langley rail issues. The letter referenced the bilateral Task Force organized to evaluate and make recommendations on Langley rail corridor issues. This process, outside the federal/provincial EA review, is supported by the federal *Pacific Gateway Strategy.*

In addition, comprehensive review comments were provided by municipal and local governments not part of the review working groups (restricted to the Corporation of Delta as a function of Project scoping). Such comments were submitted to EAO by:

- City of Surrey;
- City of Langley;
- Township of Langley; and
- Greater Vancouver Transportation Authority (TransLink).

VPA provided responses to these comments by way of letters dated August 31, 2005.

Apart from 2 public written submissions in general support of the Project, all other submissions expressed concerns over and/or objections to the Project. The key concerns and objections voiced by the public focused on:

- need for the Roberts Bank container port expansion;
- scoping of the Project and the assessment under federal and provincial legislation;
- environmental assessment by agencies rather than a federal panel;
- inadequacy of assessment documentation and dissemination of such information;
- too few public meetings and absence of useful consultation;
- inadequate time to prepare public comments;
- adverse visual and lighting impacts at Roberts Bank and in Tsawwassen;
- transportation and construction noise;
- negative impacts on regional and local air quality;
- road crossings of emergency and farm vehicles, connectivity and inconvenience;
- negative impacts of rail/road crossings in Surrey and Langley and public safety;
- traffic congestion due to increased container truck traffic;
- increased risk of accidents and malfunctions;

- negative impacts on, and loss of, wildlife habitat in the Fraser River estuary;
- Project's adverse impacts on COSEWIC listed species;
- flaws in the cumulative effects assessment and need to include Terminal 2 (T2) in the assessment; and
- long-term status of geomorphological stability and degradation of intertidal habitat in the Roberts Bank causeway area.

3.4.2 Public Consultation on Four Documents

EAO decided to provide the public with an opportunity to comment on the amended Application chapters and new Project material (see section 3.2.2 above). A 41-day provincial public comment period closed on January 25, 2006 and EAO received 50 submissions directly related to the 4 documents.

A total of 41 other emails and 6 open house forms were also received, but deemed out of scope as they did not specifically address the content of the 4 documents. A number of public comments were also received after the deadline and, unless they raised specific new issues, they could not be accepted by EAO as formal public comments and forwarded to VPA for response. The EAO decision to accept only part of the public comments caused public challenges, but the review process was laid out in compliance with provincial legislation and policy.

Included in the submissions referenced in Table 4, are a number of comprehensive comments offered by interest groups such as:

- Against Port Expansion;
- Boundary Bay Conservation Committee;
- Federation of BC Naturalists;
- BC Great Blue Heron Society;
- Western Canada Wilderness Committee; and
- Delta Residents for a Healthy Community.

Table 4 Summary of public comment submissions on four documents

Type of Submission	Number of Submissions
Individual signed letters or emails	31
Form emails based on Against Port Expansion input forms	10
Submitted at open houses	9
Total	**50**

It should also be noted that the Corporation of Delta, represented on the working group for the review of the Project, submitted a Council Resolution of December 6, 2005 providing comments on the 4 documents and a request for VPA mitigation commitments. However, by its letter of February 23, 2006, COD advised EAO that it would withdraw from the working group given that the municipality perceived staff's involvement and the restricted public access to working group material as a conflict of interest.

The main public and stakeholder comments focused on:

- cumulative effects assessment (CEA) not satisfactorily reflecting the contemplated second container terminal (T2);
- temporal baseline of 2003 chosen for the CEA being inappropriate;
- lack of historical information in CEA;
- no consideration of lighting issues in CEA;

- stated rationale for the Adaptive Management Strategy (AMS);
- conclusions from AMS monitoring not available for Project's EA decision;
- potential for eutrophication not properly addressed in AMS and in CEA;
- AMS footprint coverage inadequate;
- AMS self-assessment concept does not work;
- low AMS monitoring thresholds;
- inadequate funding for the Habitat Compensation Plan (HCP);
- using existing offsite conservation lands as an element of the HCP;
- HCP lacking species habitat losses and compensation measures;
- HCP not addressing marine mammals and CEA not addressing endangered southern resident orcas;
- Proponent not being in control of air quality mitigation measures;
- air quality update not reflecting existing container port specifically, but comparing Project to total Local Study Area emissions; and
- inadequate attention to particulate matter, especially from diesel emissions.

3.4.3 Summary of Public Comments

The public has shown considerable interest in the Project and its EA review. Public interest was particularly intense during the review of the Application, at which time VPA, EAO and CEA Agency arranged public open houses, and during additional review of the 4 documents referred to in section 3.4.2.

VPA has responded to all public comments received during the formal public comment periods, either in a compendium format posted on EAO's Project website or individually to public stakeholder groups identified above.

3.5 SUMMARY AND CONCLUSIONS – INFORMATION DISTRIBUTION AND CONSULTATION

3.5.1 Public Consultation

The notification for the public consultation process complied with the provincial section 11 procedural Order issued by EAO. The consultation program also met the outline defined in the Proponent's *Consultation and Communications Plan* issued in June 2003 and endorsed subsequently by the working group.

Public comments on the Project and its review pursuant to BCEAA and CEAA did not raise any additional substantive issues in relation to the EA not addressed as part of the environmental assessment process. However, EAO and RAs acknowledge the public concerns over the impacts of the additional container trains on level crossings and connectivity in Langley, but this issue cannot be resolved though the Project's EA review because it was determined to be beyond the Scope of Project.

3.5.2 First Nations Consultation

The First Nations consultation process meets the terms of the section 11 provincial procedural Order issued by EAO for the Project. The consultation process also meets the requirements outlined in the Proponent's *First Nations Consultation and Communications Plan* released in June 2003 and reviewed by the EAO and RAs.

EAO assessed the Proponent's consultation plan that was contained in the Application for adherence to the provincial First Nations consultation policy and applicable legal requirements. EAO accepted the First Nations consultation plan as outlined in the Application in a letter to the Proponent dated February 28, 2005.

The RAs have been informed by the Proponent's consultations and are satisfied that those consultations have been adequate in the circumstances. The RAs accept that the Proponent has

attempted in good faith on a number of occasions to consult with those First Nations which have not been participating in the harmonized review process.