

ENVIRONMENTAL ASSESSMENT TRACK REPORT

VANCOUVER PORT AUTHORITY DELTAPORT THIRD BERTH PROJECT

SUBMITTED TO THE
MINISTER OF THE ENVIRONMENT
PURSUANT TO SUBSECTION 21(2) OF THE CANADIAN ENVIRONMENTAL
ASSESSMENT ACT

BY

Fisheries and Oceans Canada
and
Environment Canada

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1.0 INTRODUCTION

On June 8, 2004, the Vancouver Port Authority (the VPA) submitted to Fisheries and Oceans Canada (DFO) and Environment Canada (EC) a description of its proposal, referred to by the Proponent as the Deltaport Third Berth Project (the Proposal), to construct and operate a new shipping berth at the existing Deltaport Container Terminal located at Roberts Bank, Delta, British Columbia.

DFO and EC have regulatory responsibilities, which have triggered the environmental assessment process pursuant to the *Canadian Environmental Assessment Act* (CEAA) in relation to the Proposal: for DFO, it is issuance of an authorization for the harmful alteration, disruption or destruction of fish habitat (HADD) under section 35(2) of the *Fisheries Act*; and, for EC, it is issuance of a licence or permit for disposal of dredged material at sea pursuant to the *Canadian Environmental Protection Act* (CEPA). DFO and EC are responsible authorities (RAs) under the CEAA. Other federal authorities (FAs) identified to date, Natural Resources Canada, Transport Canada, and Health Canada, will provide expert advice.

The project, as scoped by the RAs under section 15(1) of the CEAA (the Project), is subject to a comprehensive study under the CEAA, pursuant to paragraph 28 (c) of the *Comprehensive Study List Regulations*, because the Project includes “construction ... of ... a marine terminal designed to handle vessels larger than 25 000 DWT (dead weight tonne)”.

The VPA is a port authority established under the *Canada Marine Act*. As a result, the VPA, as the proponent of the Project, must conduct an environmental assessment in relation to the Project under the *Canada Port Authority Environmental Assessment Regulations* (CPAEAR) of CEAA. The VPA are not a Responsible Authority under CEAA but they are still required to conduct a comprehensive study that is independent of the comprehensive study being prepared by the federal Responsible Authorities. Thus, there is a requirement that there will be two federal EAs of the Project. In an effort to streamline the conduct of the environmental assessment review processes and guided by the requirements of section 8 of the CPAEAR and section 12 of the CEAA, DFO and EC are working with the VPA to ensure that the federal environmental assessment of the Project addresses both the RAs and VPA’s separate environmental assessment requirements.

The Proposal is also subject to review under the British Columbia *Environmental Assessment Act*; therefore, the terms of the Canada-BC Agreement on Environmental Assessment Cooperation (the Agreement) apply. Under the Agreement, projects that require an environmental assessment by both the Government of Canada and the Government of British Columbia will undergo a single assessment, where possible, administered cooperatively by both governments. The Canadian Environmental Assessment Agency (the Agency) in its role as Federal Environmental Assessment Coordinator (FEAC) in accordance with section 12.4 of CEAA, facilitates the

harmonization of the federal review process with the provincial review process. Both governments will use the information generated through the cooperative environmental assessment as the basis for their respective decisions on the Project.

This report to the Minister of the Environment is prepared by the RAs under section 21(2) of CEAA. The RAs consulted with the Agency and the VPA. The report presents:

- the scope of the Project;
- the factors to be considered in its assessment and the scope of those factors;
- public concerns in relation to the Project;
- the potential of the Project to cause adverse environmental effects; and,
- the ability of the comprehensive study to address issues relating to the Project.

2.0 PROJECT OVERVIEW

The proposed Deltaport Third Berth will be located at the existing Roberts Bank Port facility in Delta, B.C. and will involve the construction of approximately 20 hectares (50 acres) of fill for newly constructed land for container operations and storage. The Third Berth will increase the area of Deltaport from an existing 65 hectares (160 acres) to approximately 80 - 100 hectares in size. The proposed Deltaport Third Berth involves the construction of a wharf to accommodate a third berth, land for the container storage yard, a tug moorage area, extension of the ship channel, an additional truck exit gate, additional rail support track, some limited road improvements and operation of the facility. A site map and further details on the VPA's proposed project and project schedule are outlined throughout the "Scope Document" which is provided in Appendix 1.

3.0 SCOPE OF THE PROJECT

The scope of the Project for the purpose of the environmental assessment refers to those components of the proposed project that require a regulatory decision by an RA and those components that require an environmental assessment by the VPA. The scope of the Project includes the physical works related to the construction, operation, modification and decommissioning or abandonment of the proposed components of the Project and related undertakings.

The proposed scope of the Project for the environmental assessment of Deltaport Third Berth is composed of the following components.

- Construction of a fill area of approximately 20 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 dredgate
- Creation of a tug moorage area adjacent to north side of the third

- Relocation of a safety boat launch (currently located on the north side of Deltaport)
- Addition of approximately 7,000 meters (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)
 - additional support track on the causeway, within BC Rail's property

The operation of the Deltaport Third Berth facility includes:

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

4.0 FACTORS TO BE CONSIDERED

The factors proposed to be considered in the environmental assessment, pursuant to section 16 of the CEAA, will be:

- the environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project and 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;
- the environmental effects of the Project, including 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 subsection 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) (*e.g.*, status as endangered, threatened, etc));
- 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 on the environment that may impact social, economic, heritage and health effects of the Projects; and,
- community knowledge and aboriginal traditional knowledge, as per section 16.1.

5.0 SCOPE OF FACTORS

The following provides details on the proposed scope of factors to be considered by the RAs in the environmental assessment. The results of the various studies, as listed below, will be used to assess the ecological processes of the present system, including eutrophication, and to determine the effects of the proposed Project. The scope of factors detailed below has been slightly modified from the version that was reviewed by the public, in order to address public requests to further clarify components of the scope of factors (See Appendix 4 for details on RAs Response to Public Comments).

Coastal Geomorphology

A coastal geomorphology study will be completed to determine how the ocean waves, river and tidal currents (coastal processes) might impact the Project at Roberts Bank. The study will consider the effects of coastal process on Roberts Bank, both with and without the Project in place. Modeling of the geomorphological process will be completed to predict what the environmental effects might be, and to determine appropriate mitigation measures.

Geology / Seismic

A geology and seismic overview study will be completed in order to better understand the conditions in the Project area. The study will show how the geology and seismic conditions may impact the proposed project or influence its location. The results of the study will be factored into the engineering design and construction of the Project.

Sediment Quality

A sediment quality assessment will be carried out to determine the baseline sediment quality in the area of the proposed development which will help determine dredging requirements and dredge disposal options, including ocean disposal. The sediment quality assessment will consider the environmental impacts of disturbing, moving and disposing of sediments in the Roberts Bank area and determine appropriate mitigation measures.

Water Quality

Baseline water quality will be collected to characterize the pre-project water quality conditions, such that post-project impacts on these conditions can be predicted, mitigated and monitored. The results of the water quality study will compare existing water quality in the study area to established water quality criteria and the data used to determine monitoring plans. The results of this study will also be used in combination with the results of other studies, to assess the ecological processes of the present system, including eutrophication .

Marine Environment

A marine assessment will be completed in order to assess the environmental effects of the Project on the marine environment, specifically for the following marine components:

- Fish and fish habitat;
- Intertidal habitat and epibenthic macro-invertebrates;
- Eelgrass;
- Intertidal ecology;
- Marine mammals
- Provincial Species at Risk (red and blue listed species (CDC),
- Species at Risk (species identified under SARA)
- COSEWIC listed species

Waterfowl and Coastal Seabird

A waterfowl, coastal seabird and shorebird assessment will be conducted to determine baseline bird use in the Project area and potential project impacts. The assessment involves year long bi-weekly bird surveys at Roberts Bank.

The waterfowl, coastal seabird and shorebird assessment will also include an overhead powerline bird impact assessment, even though no powerline upgrades are required for the Project. The goal of the proposed study is to test the efficacy of the vibration dampers installed in 1997/1998 on the causeway powerlines to reduce collisions by birds.

Terrestrial Wildlife

The terrestrial wildlife assessment will assess the environmental effects of the Project on the terrestrial wildlife environment, specifically for the following terrestrial components:

- Terrestrial mammals (including the Pacific Water Shrew);
- Amphibians;
- Reptiles;
- Aquatic Invertebrates;
- Birds (including raptors, waterfowl, herons, songbirds);
- Insects (including dragonflies and butterflies);
- Vegetation;
- Provincial Species at Risk (red and blue listed species (CDC),
- Species at Risk (species identified under SARA)
- COSEWIC listed species
- Species identified by First Nations; and,
- Related wildlife resources.

Air Quality

An air quality assessment will be conducted in order to determine baseline air quality conditions, and to predict air quality impacts associated with the construction and operational phases of the Project. Based on this assessment, appropriate mitigation measures can be developed. The impact assessment will focus on health risks to people living in communities in closest proximity to the Roberts Bank facility, as well as addressing environmental receptors.

Noise

A noise study will include assessing existing acoustic conditions in the vicinity of the Project, determining sensitive receptors within an appropriate study area, predicting noise impacts associated with both the construction and operational phases of the Project and determining appropriate mitigation measures. The noise study will also look at low frequency sound waves and measure the vibration response of window glass due to impact noise from trains, specifically on the Tsawwassen First Nation reserve land.

Aboriginal Traditional Use and Knowledge

Community knowledge and aboriginal traditional knowledge will be considered where applicable and available.

Socio-Economic

The socio-economic study will focus on key base socio-economic conditions that could be potentially impacted by the construction and operation of the Project, such as:

- **Socio-Community:** Population and demographics; land use; resource use (including agricultural community); health services (clinics, ambulance, hospital); emergency services (police and fire); social services; schools; traffic (commuter and residential use); recreation; and, visual and noise characteristics.
- **Economic:** Employment/job generation; wages and salaries paid; goods and services purchased; taxes paid; economic development; labour force; local businesses; personal income characteristics; and, housing.

Appropriate mitigation measures will be identified as part of the study.

Visual Landscape

A visual landscape impact assessment will be conducted and will include project impacts on views, shading, and aesthetics. Appropriate mitigation measures will be identified as part of the study.

Lighting

A lighting impact assessment will be conducted and will include project impacts on day time light (glare); spill-over light (light trespass); night time glare from point light sources; and, sky-glow. Appropriate mitigation measures will be identified as part of the study.

Archaeological and Heritage Resources

An archaeological and heritage resources study will consist of an overview assessment (which identifies and assesses archaeological resource potential or sensitivity within the proposed study area) and an impact assessment (according to the BC Archaeological Impact Assessment Guidelines). First Nations input will be included in the assessment of cultural significance of any identified archaeological resources. Study results will be provided in the Application subject to any confidentiality agreements with relevant First Nations.

Traffic and Transportation

Traffic and transportation studies (road, rail and marine) will be conducted and will include an assessment of potential effects on marine traffic and navigability.

Malfunctions and Accidents

- The possible malfunctions or accidents associated with the Project and the potential adverse environmental effects of these events (such as spills, and boating accidents).
- Contingency measures for responding to emergencies.

Any change to the Project that may be caused by the environment

The environmental factors that may affect the Project and the predicted effects of those environmental factors will also be considered in accordance with CEAA. The following are examples of issues that would be addressed:

- seismic activity;
- climate change;
- erosion; and,
- flooding (*i.e.*, tsunamis)
- wind and waves

Cumulative Environmental Effects

The 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 will be identified and assessed.

Other projects and activities that will be considered are:

- The past development of the Roberts Bank port facility;
- The past development of the Tsawwassen Ferry Terminal;
- The proposed future development of Container Terminal 2 at Roberts Bank; and
- Other proposed projects in an approval process in the study area.

Terminal 2 is part of the VPA's overall Roberts Bank Container Expansion Program and could involve creating a new three berth container terminal, approximately 81 hectares (200 acres) in size adjacent to the existing Roberts Bank Port facilities. The Terminal 2 proposal is completely independent of the Deltaport Third Berth Expansion in all aspects including site location, terminal configuration, environmental study and impact assessment, construction, operation and development schedule. To date, the VPA has identified the preferred location for Terminal 2 but not the terminal configuration, the on-site services or the offsite road and rail requirements, and detailed engineering and feasibility studies will be required in order to determine each of these components. Consequently, the cumulative effects assessment will consider the potential cumulative effects of the Terminal 2 proposal, as well as of other proposed projects in an approval process in the study area, cumulatively to residual impacts of the Deltaport Third Berth

Expansion proposal. This will be based on the information available and to the extent that is feasible and reasonable knowing that Terminal 2 would undergo a separate environmental assessment. For example, the Terminal 2 proposal would be subject to its own harmonized federal and provincial environmental assessment process at which time the cumulative effects of Terminal 2, the Deltaport and other approved projects would be assessed.

Sustainability of the Resource

The environmental assessment will consider the renewable resources that may be significantly affected by the Project and whether their sustainable use will be affected.

Spatial and Temporal Boundaries

The spatial boundaries vary with each study factor (*e.g.*, marine environment, wildlife, noise). The spatial boundaries for each study factor will be presented in the Application. A broad study area for the Deltaport Third Berth Project includes land and water:

- Between the mouth of South Arm of the Fraser River and Point Roberts (approximately 8 km south of Tsawwassen Ferry Terminal); and,
- Between 64th Street in Delta and 3 kms seaward from the Roberts Bank Port facility.

The temporal boundaries of the Project include a short-term construction phase of approximately 3 years and a long-term operation phase (100+ years).

Need for a Follow-up Program

The purpose of a follow-up program is to verify the accuracy of impact predictions and determine the effectiveness of mitigation measures. The environmental assessment will determine what follow up program will be implemented and who (the responsible authorities or the VPA) will be responsible for implementing them.

6.0 PUBLIC CONCERNS IN RELATION TO THE PROJECT

The comprehensive study process requires that the public be given opportunities for public involvement in the comprehensive study as follows: consultation during the preparation of the scope of the assessment; participation in the conduct of the comprehensive study process: consultation during the preparation of the scope of the environmental assessment, during the preparation of the comprehensive study, and during the comment period administered by the Agency on the completed comprehensive study report. This section describes the public consultation undertaken during the preparation of the proposed scope of the environmental assessment, the factors proposed to be considered in its assessment, the proposed scope of those factors and the ability of the comprehensive study to address issues relating to the Project. This section of the report also provides an overview of the RAs response to the public comments and how the public concerns will be addressed by the comprehensive study process.

6.1 Public Consultation

A public registry was established for the Project on June 14, 2004 and is listed on the Canadian Environmental Assessment Registry (reference number 04-03-3734). Documents related to the environmental assessment of the Project are listed, and some published electronically, in the VPA's web site which is located at http://www.portvancouver.com/the_port/roberts.html and on the British Columbia Environmental Assessment Office Project Information Centre at http://www.eao.gov.bc.ca/epic/output/html/deploy/epic_project_home_212.html.

DFO advertised in provincial and community newspapers, starting the week of July 23, 2004, to provide notice of the public consultation period for the scoping document. A copy of public notice is provided in Appendix 2. The notice appeared in the following papers and associated dates:

Vancouver Sun, Saturday, July 24
Delta Optimist, Saturday, July 24
Delta Optimist, Wednesday, July 28
South Delta Leader, Friday, July 23
South Delta Leader, Friday, July 30
Surrey Leader, Sunday, July 25
Langley Times, Sunday, July 25
L'Express du Pacific, Monday, August 2

The scoping document was provided electronically on the Canadian Environmental Assessment Registry website. The scoping document and the Project Description were also posted on the VPA web site. Copies of the scoping document and Project Description were also made available in printed form at the following local libraries:

Delta Pioneer Library

4683 - 51st Street, Ladner, BC

South Delta Library

1321A - 56th Ave, Tsawwassen, BC

Strawberry Hill Library

7399 - 122nd Street, Surrey, BC

George Mackie Library

8440 - 112th Street, Delta, BC

Cloverdale Library

5642 - 176A Street, Surrey, BC

Langley Library

20399 Douglas Crescent, Langley, BC

The public was provided with a 31 - day review period to provide written comment on the scoping document. All public comments received by the RAs on the scoping document were distributed to the Agency and the VPA.

It should be noted that a number of comments from the public raised an issue related to the need for more time to review the scoping document given that timing of the consultation took place in the summer months when many people are on summer vacation. It should be noted, however, that the public has been consulted by VPA, on

various occasions over the past two years in an attempt to examine options, ascertain key issues, and acquire public feedback about the Project in conjunction with other proposed developments in the Deltaport area. Public feedback and expert advice helped the VPA in advising the RAs as to the issues that could arise and the factors to consider in the comprehensive study process.

6.2 Written Public Comments and RA Response

The RAs received twenty written comments on the scope of the environmental assessment of the Project. General profiles of the respondents and their comments received are summarized in general terms as follows:

- Ten comments were received from industry or business groups that supported the comprehensive study track, the scope of assessment proposed, and support the economic benefits of the Deltaport Third Berth Expansion.
- Two comments were received representing the interests of the Tsawwassen First Nation suggesting a few additions to the scope of factors, outlining concerns over impacts (particularly air pollution from traffic) on Aboriginal lands, peoples and interests, and, supporting a comprehensive study approach to adequately address issues.
- One comment was received from a private citizen supporting the Project and supporting the comprehensive study process.
- Four comments were received representing the views of private citizens (including the Tsawwassen Homeowners Association, and the Corporation of Delta) expressing concerns over potential impacts (particularly from increases to traffic, increase in air pollution, disruption and destruction of wildlife habitat, and impacts on migratory birds), and advocating that the Project undergo a panel review in conjunction with other possible future Deltaport expansion proposals.
- Three comments were received representing the BC Great Blue Heron Society, the Boundary Bay Conservation Committee, and the Vancouver Natural History Society expressing concerns over potential impacts (particularly impacts on migratory birds, the Roberts Bank ecosystem including birds, fish and marine mammals), over scope of factors to be considered, and advocating that the Project undergo a panel review in conjunction with other possible future Deltaport expansions proposals (except in one response where the Government of Canada are asked to move forward in creating a “Boundary Bay National Wildlife Refuge” prior to making any decisions on the Project).

A detailed outline of all of the comments received and the RAs response to comments/issues raised in relation to the scope of the assessment, to the factors to be considered and to the scope of the factors to be considered, is summarized in Appendix 4. A few minor changes were made to the Scope of Factors in response to the public

feedback, and they are identified in Appendix 4.

6.3 Future Consultation

If the decision of the Minister is to recommend the Project continue to be assessed as a comprehensive study, under paragraph 21.1(1)(a) of the CEAA, the RAs and the VPA will ensure that the public is provided with an opportunity, in addition to those provided under subsection 21(1) and section 22, to participate in the comprehensive study.

As part of the cooperative assessment undertaken with the Province, a 30-75 day public comment period will be held on the proponent's application submitted in accordance with the B.C. *Environmental Assessment Act*. This application will be the substantive environmental impact report prepared by VPA to meet the information requirements of both levels of government. In addition to the formal public comment period, the VPA will be required to carry out a public consultation program during the application review period which may include, as appropriate, open houses or other public forums.

Following review of the application, the RAs will ensure the preparation of a comprehensive study report that will report on the assessment and the RAs' conclusions and recommendations with respect to the potential effects of the Project. The CEA Agency will administer a public comment period on the comprehensive study report. Public comments filed in relation to the comprehensive study report will be provided to the Minister for consideration prior to issuing an environmental assessment decision statement.

7.0 POTENTIAL OF THE PROJECT TO CAUSE ENVIRONMENTAL EFFECTS

Over the past fifty years a number of developments have taken place at Roberts Bank including construction of the Tsawwassen ferry terminal, development of the Roberts Bank coal port, various expansion projects for the ferry terminal and port facilities and the initial construction of the Deltaport Container Terminal. The port expansion activities underwent environmental assessments through the Federal Environmental Review Office (FEARO) panel, which released its report in 1979, and under CEAA between 1992 and 1997, all of which included consultation with the public and First Nations. In 2000, the VPA hired a consultant to coordinate consultation with regulators and stakeholders to undertake a cumulative effects study to acquire information that would augment existing information regarding cumulative environmental effects of any future projects at Roberts Bank. The information provided in the environmental assessments and the cumulative effects assessment, along with a generic analysis of the potential interaction of environmental factors with proposed activities resulting from the proposed construction and operation of the Project, served as a basis for outlining the following potential environmental effects that could occur with the construction and operation of the Project. It is anticipated that the following environmental effects could

result should mitigative measures not be put into place.

Potential Impacts to Marine Environment

Fish and fish habitat could be impacted as infilling for the berth expansion will cover over intertidal and subtidal marine habitat. The potential also exists for changes to the shoreline and coastal process, due to changes in tidal currents from the proposed marine structures that may also affect fish habitat. The marine environmental impact assessment will address impacts to fish and fish habitat, marine vegetation and marine mammals. The coastal geomorphology study will evaluate impacts of the Project on coastal zone processes. DFO will work with the VPA to determine mitigation and compensation for the potential loss of habitat.

Potential Impacts to Waterfowl, Coastal Seabirds

The Project is located in the Fraser River estuary, an area of international significance for migratory birds and habitat for many species at risk. The potential exists for impacts on waterfowl and coastal seabirds to occur during construction and operation of the Project. VPA will conduct an impact assessment of the waterfowl and coastal seabirds that will include: review of existing literature; year long seasonal field studies; identification of important bird habitat; and assessment of environmental effects. VPA will work with Canadian Wildlife Service to determine mitigation and compensation for potential loss of bird habitat.

Potential Impacts to Terrestrial Wildlife, Including Species at Risk

Construction and operation of the expanded rail line required for the Project has the potential to impact terrestrial wildlife habitat. VPA will conduct a terrestrial wildlife assessment that will include “species at risk” and their habitat, and species and habitats likely to be affected by the Project footprint. The field surveys will focus on presence/absence and habitat use patterns. VPA will assess the provincial red and blue listed species identified through CDC, species identified under SARA, and species identified as threatened or endangered by COSEWIC. VPA will work with the Canadian Wildlife Service and the provincial Ministry of Water, Land and Air Protection to determine appropriate mitigation and compensation for potential loss of wildlife habitat.

Potential Impact to Air Quality

There is the potential for an increase in airborne pollutants during the construction and operation of the Project, resulting from the increase in truck and rail traffic. An air quality assessment will be conducted by VPA in order to determine baseline air quality conditions, to predict air quality impacts associated with the construction and operational phases of the Project, and, to determine appropriate mitigative measures. The impact assessment will focus on health risks to people living in communities in closest proximity to the Roberts Bank facility, as well as addressing environmental receptors.

Potential Impacts on Water Quality

The Project has the potential to impact on water quality during construction and operation. VPA will conduct a water quality study to establish baseline water quality conditions and assess any potential impacts. Fisheries and Oceans Canada and

Environment Canada will work with VPA to develop mitigation and any follow up monitoring requirements.

Potential Impacts on Local Communities & First Nations (traffic, noise, visual)

Local communities and the Tsawwassen First Nation could be affected by the Project with an increase in truck and rail traffic. VPA will conduct an existing socio-economic profile of key base socio-economic conditions that could be potentially impacted by the construction and operation of the Project. First Nations' traditional knowledge, particularly Tsawwassen First Nation, will be used in conducting the socio-economic impact assessment. VPA, working with the local community and First Nations, will identify mitigation measures that can be used to minimize potential negative socio-community impacts during construction and operation of the Project.

There is potential for noise levels to increase with the Project. The VPA will undertake a noise assessment that will include the Roberts Bank Port facility and causeway, residential communities adjacent to the rail line and residential areas along the shoreline from the Roberts Bank causeway to Tsawwassen Beach. The noise assessment will determine baseline conditions and assess the potential increase in noise from the construction and operation of the Project. Based on the results of the noise assessment, VPA will work with the Terminal Operator and the railways to reduce noise levels associated with the Project in the surrounding community and Tsawwassen First Nation.

The local community could also have potential impacts on their visual landscape both during the day and at night due to increased lighting. A visual and lighting impact assessment will be conducted by VPA in order to determine baseline conditions, to predict impacts to visual and lighting associated with the construction and operational phases of the Project, and to determine appropriate mitigative measures. The visual and lighting impact assessment will focus on people living in communities in closest proximity to the Roberts Bank facility, as well as addressing environmental receptors related to lighting impacts.

Potential Cumulative Effects

The Project has the potential to generate cumulative environmental effects. A cumulative effects assessment (CEA) for the Project will be undertaken in accordance with the framework for addressing these effects pursuant to current CEAA guidelines. The objective for the CEA for the Project is to assess cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be present in a reasonable temporal and spatial scale.

For past projects the VPA will look at the cumulative effects of this Project in combination with previous port development and expansion at Roberts Bank. Specific issues that have been raised by the public and regulatory agencies includes the potential mortality of birds due to the presence of the existing overhead powerlines that were constructed as part of the Roberts Bank coal port in the early 1970's. It also includes an assessment of the potential for eutrophication processes to develop in the intercauseway area related to the construction of the port and ferry causeways and whether the Project

will change the existing coastal zone processes and either create/or worsen eutrophication processes.

Future projects include those which are 'certain' and 'reasonably foreseeable'. The CEAA does not require consideration of 'uncertain' or 'hypothetical' projects, but the Operational Policy Statement (CEA Agency 1999) requests such projects are included for an adequate understanding of the effects of the activity on resources. The Roberts Bank Container Expansion Program is a VPA initiative to expand container-handling facilities at Roberts Bank in Delta, B.C. The program will initially add a third-berth to the existing Deltaport container terminal (the Project), followed by the development of a new three-berth container terminal, known as Terminal 2. The Terminal 2 proposal is completely independent of the Deltaport Third Berth Expansion in all aspects including site location, terminal configuration, environmental study and impact assessment, construction, operation and development schedule. The contribution of the Terminal 2 project to cumulative environmental effects is unknown at this time because details of the extent of this development have yet to be finalised. However, it is likely that effects of the proposed Terminal 2 will impact on coastal geomorphological processes and the flow on from this to marine habitats in close proximity to the Project. Air quality and light and noise pollution will also likely be issues of concern. However, until details of the exact location, the size and nature of the development and its operation is known the cumulative effects analysis will be largely qualitative and will be based on the information available to VPA and the agencies, and to the extent that is technically feasible and reasonable. The Terminal 2 proposal would be subject to its own harmonized federal and provincial environmental assessment process at which time the cumulative effects of Terminal 2, the Deltaport and other approved projects would be assessed.

8.0 ABILITY OF THE COMPREHENSIVE STUDY TO ADDRESS ISSUES RELATING TO THE PROJECT

Over the past decades, DFO and EC have worked with the VPA on development projects in the Deltaport area and have acquired a great deal of experience and expertise on understanding and providing expert advice regarding the mitigation of environmental effects of port expansion construction and operation activities. Given the nature of the Project, the understanding of environmental issues as per previous environmental assessments, and the consideration of feedback from the public and interest groups, the RAs have reviewed VPA's proposal for the expansion of the Deltaport Third Berth, and determined that given the anticipated environmental effects and issues of the Project, that a comprehensive study can address issues related to the Project.

Appendix 1 – Scope of Comprehensive Study

Scoping Document

Deltaport Third Berth Project

1.0 INTRODUCTION

The Vancouver Port Authority (“VPA” or “Proponent”) proposes to construct the Deltaport Third Berth Project (the Development Project) at the existing Roberts Bank Port facility located in Delta, B.C.

The Deltaport Third Berth Project includes the construction of approximately 20 hectares (50 acres) of fill for newly constructed land for container operations and storage, and construction of a wharf to accommodate an additional berth.

Fisheries and Oceans Canada (DFO) and Environment Canada, have federal regulatory responsibilities which have triggered the federal environmental assessment process pursuant to the *Canadian Environmental Assessment Act* (CEAA) in relation to the Vancouver Port Authority’s Deltaport Third Berth Project. The likely CEAA triggers include: an Authorization for the Harmful Alteration, Disruption or Destruction of Fish Habitat from DFO according to Section 35 of the *Fisheries Act*; and, a licence or permit for disposal of dredged material at sea from Environment Canada under subsection 71(1) of the *Canadian Environmental Protection Act*. (CEPA). DFO and Environment Canada have been identified as Responsible Authorities (RAs) as defined by CEAA, and are required to conduct an environmental assessment for this Project. Federal Authorities (FAs), such as Natural Resources Canada, Transport Canada, and Health Canada, will provide expert advice in relation to the Project.

The VPA is a Canada Port Authority (CPA) as defined under Section 8 of the *Canada Marine Act*. As a result, the VPA has responsibility under the Canada Port Authority Environmental Assessment Regulations of CEAA to also carry out an environmental assessment of this Development Project. Therefore, this environmental assessment review process will help the VPA address its CEAA obligations.

DFO and Environment Canada are working with the VPA in the spirit of federal cooperation to ensure that the federal environmental assessment of the Development Project addresses both the RAs and VPA’s environmental assessment requirements. DFO and Environment Canada as the RAs, will make project-related decisions on matters within their own legislative authority, while the VPA makes a decision, pursuant to the Canada Port Authority Environmental Assessment Regulations, on the entire Development Project.

Under Section 21(1) of CEAA, where a project is described in the comprehensive study list, the responsible authority must ensure public consultation on the proposed scope of the project for the environmental assessment, the proposed factors to be considered in the environmental assessment and the proposed scope of those factors. This scoping

document serves as a means to solicit public input on the EA process, and the document serves to outline the ability of the comprehensive study to address issues relating to the project. Following the public comment period, in accordance with Section 21(2) of CEAA the RAs will provide a report to the federal Minister of the Environment with a recommendation to continue with the environmental assessment by means of a comprehensive study or to refer the project to a mediator or a review panel.

The scope of the project refers to the various components of the proposed Development Project that are considered for the purpose of the environmental assessment. This document describes the proposed scope of the project, the proposed factors to be considered in the environmental assessment and the proposed scope of those factors. This document is intended to provide information to assist the public in commenting on this project and the proposed approach to the environmental assessment.

1.1 Environmental Assessment Process

The Deltaport Third Berth Project is subject to a comprehensive study under CEAA, pursuant to paragraph 28 (c) of the *Comprehensive Study List Regulations*, which lists “a marine terminal designed to handle vessels larger than 25 000 DWT (dead weight tonne)”. The CEAA assessment will be conducted along a Comprehensive Study assessment track (described below).

Under section 21(2) of CEAA, following public consultation, the federal RAs must provide a report to the federal Minister of the Environment. The report concerning public input on scoping specifically must include:

- the scope of the project, the factors to be considered in the assessment and the scope of those factors;
- public concerns in relation to the project;
- the potential of the project to cause adverse environmental effects; and
- the ability of the comprehensive study process to address issues relating to the project

The report must also include a recommendation to the Minister of the Environment to continue with the environmental assessment by means of a comprehensive study or to refer the project to a mediator or review panel.

Federal EA Process

The environmental assessment process for projects listed under the Comprehensive Study Regulations of CEAA may follow one of three assessment tracks: comprehensive study, mediation or panel review. After considering the RAs’ report and recommendation, the federal Minister of the Environment will determine whether to refer the project back to the RAs so that they may continue the comprehensive study, or refer the project to a mediator or review panel.

Comprehensive Study

The Canadian Environmental Assessment Agency (CEA Agency) in its role as the Federal Environmental Assessment Coordinator (FEAC) facilitates participation amongst the federal departments during the Comprehensive Study assessment process.

During the Comprehensive Study process, the RAs will facilitate the public's continued participation in the Comprehensive Study. In addition to public input at the scoping stage (i.e. the purpose of this document), the CEA Agency will invite the public to comment on the Comprehensive Study Report prior to the Minister of the Environment making his determination.

The Minister of the Environment also has the power to request additional information or require that public concerns be addressed before issuing the environmental assessment decision statement. Once the environmental assessment decision statement is issued, the Minister refers the project back to the Responsible Authority for action.

Mediation

The mediation process consists of an environmental assessment with the assistance of an independent and impartial mediator appointed by the Minister of the Environment, after consulting with the Responsible Authorities and all interested parties. The Minister of the Environment sets the terms of reference of the mediation.

Mediation only occurs if interested parties have been identified and are willing to participate and if the Minister of the Environment has decided to refer the project to a mediator. The mediator must prepare a report of the results of the mediation and provide that report to the Responsible Authority and the Minister of the Environment, who then makes the report public. The Responsible Authority must take the mediator's report into consideration before determining the significance of the environmental effects of the project.

Individuals and organizations having a direct interest in or directly affected by a proposed project would be involved in the mediation. A public information program, in which the general public is kept informed of the progress of talks, would form part of the mediation process. If mediation does not successfully resolve the issues under negotiation, the Minister of the Environment can order its conclusion.

Panel Review

Panel reviews usually entail public hearings conducted by a Panel of experts appointed by the Minister of the Environment and representing different sectors. The Minister of the Environment sets the terms of reference of the panel. During the panel review process, the proponent presents the project to the public and explains the project environmental effects. Members of the public may participate in scoping meetings to identify issues that

need to be addressed. The public also has an opportunity to hear the views of government experts with respect to the project and individuals may present evidence, concerns and recommendations at public hearings.

Once the review panel has completed the public hearings and its analysis, it must prepare an environmental assessment report which summarizes its rationale, conclusions and recommendations, and includes a summary of comments received from the public. This report is submitted to the Responsible Authority and the Minister of the Environment who then makes the report public. The responsible authority must take the review panel's report into consideration before making any decision with regard to the project. The RAs must also take into consideration the Cabinet response before making any decision with regard to the project.

Joint Canada-BC EA Process

As the project is also subject to review under the British Columbia *Environmental Assessment Act*, the terms of the Canada-BC Agreement on Environmental Assessment Cooperation apply. Under the Agreement, projects that require an environmental assessment by both the Government of Canada and the Government of British Columbia will undergo a single assessment, where possible, administered cooperatively by both governments. The CEA Agency in its role as Federal Environmental Assessment Coordinator (FEAC) facilitates the harmonization of the federal review process with the provincial review process. Both governments will use the information generated through the cooperative environmental assessment as the basis for their respective decisions on the project. As the Agreement does not provide for delegation of authority, each government will retain its ability to make project-related decisions on matters within its own legislative authority.

1.2 Project Overview

1.2.1 Project Location

The Deltaport Third Berth Project, located at the existing Roberts Bank Port facility in Delta, B.C., will involve the construction of approximately 20 hectares (50 acres) of fill for newly constructed land for container operations and storage. This will increase the area of Deltaport from 65 hectares (160 acres) to approximately 85 hectares (210 acres), as shown on **Figure 1** below.

Land use in the Delta area primarily consists of agriculture, with lesser amounts of land used for residential, commercial and industrial purposes (including transportation). In addition, the following First Nations have been identified as those who have traditional interests in the study area:

- Tsawwassen First Nation
- Musqueam First Nation
- Katzie First Nation
- Stó:lo First Nation
- Semiahmoo First Nation

Of these First Nations, the Tsawwassen First Nation (TFN) has the closest reserve land to the proposed Deltaport Third Berth Project. The TFN reserve land is located south of the Deltaport Way along the Roberts Bank shoreline.

1.2.2 Project Description

The components of the Deltaport Third Berth Project consist of construction of a wharf to accommodate a third berth, land for the container storage yard, a tug moorage area, extension of the ship channel, an additional truck exit gate, additional rail support track, some limited road improvements and operation of the facility. Widening of the Roberts Bank causeway is not required for the Deltaport Third Berth Project.

Marine Works

The new land area will be created through placement of material from dredging (preliminary estimates indicate a total dredging volume of approximately 2 million cubic metres of material is required to create the ship channel for the third berth and to construct the terminal area) and landfill operations, with soil densification works required along the perimeter berm and under most new structures. The revetment works (*i.e.*, shoreline protection) for the northern shoreline of the container yard will consist of rock armoured slopes.

Upland Works and Terminal Facilities

There will be limited construction of new site services for the Project, as many of the existing Deltaport site services are adequate to meet the Deltaport Third Berth Project needs. The site services required include an on-site water storage tank, terminal lighting and a stormwater run-off collection system. A truck exit gate is the only building required on the terminal as part of the Deltaport Third Berth Project.

Road and Rail Infrastructure

Preliminary rail analysis indicates that there will be a requirement for approximately 7,000 metres (23,000 feet) of additional rail track for the Deltaport Third Berth Project. This rail track will be provided by extending the arrival/departure tracks at the Gulf siding (east of Arthur Drive to 64th Street) and adding support track on the 4.1 km long causeway. All of the rail improvements will be constructed within BC Rail's property on the Roberts Bank causeway and within their existing right-of-way and will be constructed by BC Rail. The rail extensions at the Gulf siding will require closure of the road-rail grade crossing at 57B Street. No changes are required at the 41B Street grade crossing and this will remain open to vehicular traffic.

No new road infrastructure along the causeway or on Deltaport Way will be required to support the Deltaport Third Berth Project.

Figure 1

1.3 Background

The VPA has prepared a container terminal expansion strategy to enable the Port of Vancouver to maintain its competitive position as a North American gateway for container trade. VPA reports that Trans-Pacific container shipments are increasing due to the growth in global trade, particularly with China, and the ongoing containerization of products. As a result, major ports on the West Coast of North America, such as the Ports of Seattle and Tacoma, expect their container traffic to triple in the next twenty years and are making major investments in terminal facilities. VPA proposes to expand its container terminal facilities in order for the port to continue serving Canada's trade. The VPA has considered a number of alternatives to Deltaport, including increasing capacity at existing terminals within Burrard Inlet as well as further expansion at Roberts Bank. The addition of Deltaport Third Berth will increase the capacity at Deltaport from 900,000 TEUs to 1,300,000 TEUs per annum (an increase of 400,000 TEUs).

1.4 Project Schedule

The Deltaport Third Berth Project development schedule proposed by VPA is presented below.

Environmental and Engineering Studies	Summer 2003 - Summer 2004
Submission of VPA's environmental assessment report (the "Application")	Fall 2004
Application Review	Winter 2004 - Summer 2005
Start of Construction	Spring 2006
Construction Completion/Third Berth Operational	Summer 2008

1.5 Environmental Assessment Schedule and Opportunities for Public Participation

DFO, on behalf of all RAs, expects to submit a report and recommendation to the Minister of the Environment in the Fall of 2004 on whether the environmental assessment continues by means of a comprehensive study or be referred to a mediator or a review panel. The public has the opportunity to provide comments in relation to the proposed environmental assessment process.

Comprehensive Study Process Schedule

If the assessment continues by means of the comprehensive study process, coordinated with the provincial environmental assessment process, VPA proposes to submit its environmental assessment report (the "Application") in the fall of 2004. The Application will be made available for review by government agencies, First Nations and the public. The review would include up to a 75 day public comment period on the Application, a series of public open houses and other public consultation measures as may be required. It is estimated that the open houses and public comment period would occur in late

2004/early 2005.

Following the review of the Application, RAs will prepare a comprehensive study report on the findings of the environmental assessment and will submit it to the Agency. The Agency will ensure that the comprehensive study report will be made available for public comment. At this time, it is estimated that the public comment period on the comprehensive study report would occur in the summer of 2005. After the public comment period, the comprehensive study report would be provided to the Minister of the Environment, along with any comments submitted in relation to the report. The Minister would then consider the comprehensive study report, and any comments on that report, and issue a decision statement in relation to the project.

The Province would also prepare a report on the findings of the assessment, which would be provided to provincial ministers for decision. While federal and provincial agencies would work to coordinate the assessment process and the timing of decisions to the extent practicable, both levels of government retain separate decision-making authority.

Panel Review Schedule (if applicable)

If the Minister of the Environment determines that a review panel will be established to undertake the environmental assessment, the schedule described above would not apply. The schedule would be developed after the Minister had appointed the panel members and fixed the terms of reference for the panel.

2.0 SCOPE

2.1 Scope of the Project

The scope of the project for the purpose of the environmental assessment refers to those components of the proposed project that require a Regulatory decision by an RA and those components which require an environmental assessment by the VPA. DFO and Environment Canada as the RAs, will make project-related decisions on matters within their own legislative authority, while the VPA makes a decision, pursuant to the Canada Port Authority Environmental Assessment Regulations, on the entire Development Project. The scope of the project includes the physical works related to the construction, operation, modification and decommissioning or abandonment of the proposed components of the project and related undertakings.

The proposed scope of the project for the environmental assessment of Deltaport Third Berth will be the following components.

Principal components:

- Construction of a fill area of approximately 20 hectares (50 acres) of land for an expanded container storage yard (dredge and fill) (Likely requires a regulatory decision under the *Fisheries Act*).
- Construction of a wharf to accommodate a third berth (Likely requires a regulatory decision under the *Fisheries Act*).
- Expansion of the existing ship channel to the north (part of the dredge

works(Likely requires a regulatory decision under the *Fisheries Act*).

Ancillary components:

- Creation of a tug moorage area adjacent to north side of the third berth (Likely requires a regulatory decision under the *Fisheries Act*).
- Relocation of a safety boat launch (currently located on the north side of Deltaport) (Likely requires a regulatory decision under the *Fisheries Act*).
- Addition of approximately 7,000 meters (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)

The operation of the Deltaport Third Berth facility includes:

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

2.2 Scope of Assessment

The scope of assessment defines both the proposed factors that are considered in the environmental assessment and the proposed scope of those factors to be assessed.

2.2.1 Factors to be Considered

The factors proposed to be considered in the environmental assessment, pursuant to Section 16 of CEAA, will be:

- the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and 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;
- the environmental effects of the project, including 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 subsection 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) (*e.g.*, status as endangered, threatened, etc));
- 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; and,
- the effects on the environment that may impact social, economic, heritage and health effects of the projects.

2.2.2 Scope of Factors to be Considered

- The following provides details on the proposed scope of the factors to be considered by the RAs and the VPA in the environmental assessment.

Coastal Geomorphology

A coastal geomorphology study will be completed to determine how the ocean waves, river and tidal currents (coastal processes) might impact the proposed Project at Roberts Bank. The study will consider the effects of coastal process on Roberts Bank, both with and without the project in place. Modeling of the geomorphological process will be completed to predict what the environmental effects might be, and to determine appropriate mitigation measures.

Geology / Seismic

A geology and seismic overview study will be completed in order to better understand the conditions in the project area. The study will show how the geology and seismic conditions may impact the proposed project or influence its location. The results of the study will be factored into the engineering design and construction of the Project.

Sediment Quality

A sediment quality assessment will be carried out to determine the baseline sediment quality in the area of the proposed development which will help determine dredging requirements and dredge disposal options, including ocean disposal. The sediment quality assessment will consider the environmental impacts of disturbing, moving and disposing of sediments in the Roberts Bank area and determine appropriate mitigation measures.

Water Quality

Baseline water quality will be collected to characterize the pre-project water quality conditions, such that post-project impacts on these conditions can be predicted, mitigated and monitored. The results of the water quality study will compare existing water quality in the study area to established water quality criteria and the data used to determine monitoring plans.

Marine Environment

A marine environmental assessment will be completed in order to assess the environmental effects of the Project on the marine environment, specifically for the following marine components:

- Fish and fish habitat;
- Intertidal habitat and epibenthic macro-invertebrates;
- Eelgrass;

- Intertidal ecology; and,
- Marine mammals.

Waterfowl and Coastal Seabird

A waterfowl, coastal seabird and shorebird assessment will be conducted to determine baseline bird use in the project area and potential project impacts. The assessment involves year long bi-weekly bird surveys at Roberts Bank.

The waterfowl, coastal seabird and shorebird assessment will also include an overhead powerline bird impact assessment, even though no powerline upgrades are required for the Project. The goal of the proposed study is to test the efficacy of the vibration dampers installed in 1997/1998 on the causeway powerlines to reduce collisions by birds.

Terrestrial Wildlife

The terrestrial wildlife assessment will assess the environmental effects of the Project on the terrestrial wildlife environment, specifically for the following terrestrial components:

- Terrestrial mammals (including the Pacific Water Shrew);
- Amphibians;
- Reptiles;
- Aquatic Invertebrates;
- Birds (including raptors, waterfowl, herons, songbirds);
- Insects (including dragonflies and butterflies);
- Vegetation;
- Species at Risk (red and blue listed species (CDC), and species identified under SARA, and COSEWIC listed species);
- Species identified by First Nations; and,
- Related wildlife resources.

Air Quality

An air quality assessment will be conducted in order to determine baseline air quality conditions, and to predict air quality impacts associated with the construction and operational phases of the Project. Based on this assessment, appropriate mitigation measures can be developed. The impact assessment will focus on health risks to people living in communities in closest proximity to the Roberts Bank facility, as well as addressing environmental receptors.

Noise

A noise study will include assessing existing acoustic conditions in the vicinity of the proposed Project, determining sensitive receptors within an appropriate study area, predicting noise impacts associated with both the construction and operational phases of the Project and determining appropriate mitigation measures. The noise study will also look at low frequency sound waves and measure the vibration response of window glass due to impact noise from trains, specifically on the Tsawwassen First Nation reserve land.

Socio-Economic

The socio-economic study will focus on key base socio-economic conditions that could

be potentially impacted by the construction and operation of the Project, such as:

Socio-Community: Population and demographics; land use; resource use (including agricultural community); health services (clinics, ambulance, hospital); emergency services (police and fire); social services; schools; traffic (commuter and residential use); recreation; and, visual and noise characteristics.

Economic: Employment/job generation; wages and salaries paid; goods and services purchased; taxes paid; economic development; labour force; local businesses; personal income characteristics; and, housing.

Appropriate mitigation measures will be identified as part of the study.

Visual Landscape

A visual landscape impact assessment will be conducted and will include project impacts on views, shading, and aesthetics. Appropriate mitigation measures will be identified as part of the study.

Lighting

A lighting impact assessment will be conducted and will include project impacts on day time light (glare); spill-over light (light trespass); night time glare from point light sources; and, sky-glow. Appropriate mitigation measures will be identified as part of the study.

Archaeological and Heritage Resources

An archaeological and heritage resources study will consist of an overview assessment (which identifies and assesses archaeological resource potential or sensitivity within the proposed study area) and an impact assessment (according to the BC Archaeological Impact Assessment Guidelines). First Nations input will be included in the assessment of cultural significance of any identified archaeological resources. Study results will be provided in the Application subject to any confidentiality agreements with relevant First Nations.

Traffic and Transportation

Traffic and transportation studies (road, rail and marine) will be conducted and will include an assessment of potential effects on marine traffic and navigability.

Malfunctions and Accidents

- The possible malfunctions or accidents associated with the project and the potential adverse environmental effects of these events
- Contingency measures for responding to emergencies.

Any change to the project that may be caused by the environment

The environmental factors that may affect the project and the predicted effects of those environmental factors. The following are examples of issues that would be addressed:

- seismic activity;
- climate change;
- erosion; and,

- flooding (*i.e.*, tsunamis).

Cumulative Environmental Effects

The 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 will be identified and assessed. The approach and methodologies used to identify and assess cumulative effects will be explained.

Other projects and activities that will be considered are:

- The past development of the Roberts Bank port facility;
- The past development of the Tsawwassen Ferry Terminal;
- The proposed future development of Container Terminal 2 at Roberts Bank; and,
- Other proposed future projects in the study area.

The Container Terminal 2 project is proposed as part of the Roberts Bank Container Expansion Project and would involve creating a new three berth container terminal, approximately 81 hectares (200 acres) in size adjacent to the existing Roberts Bank Port facilities.

Sustainability of the Resource

The environmental assessment will consider the renewable resources that may be significantly affected by the project and whether their sustainable use will be affected.

Spatial and Temporal Boundaries

The spatial boundaries vary with each study factor (*e.g.*, marine environment, wildlife, noise). The spatial boundaries for each study factor will be presented in the Application. A broad study area for the Deltaport Third Berth Project includes land and water:

- Between the mouth of South Arm of the Fraser River and Point Roberts (approximately 8 km south of Tsawwassen Ferry Terminal); and,
- Between 64th Street in Delta and 3 kms seaward from the Roberts Bank Port facility.

The temporal boundaries of the project include a short-term construction phase of approximately 3 years and a long-term operation phase (100+ years). Decommissioning and abandonment will not be addressed in the Application as the Deltaport Third Berth Project facility is intended to be a permanent structure.

Need for a Follow-up Program

The purpose of a follow-up program is to verify the accuracy of impact predictions and determine the effectiveness of mitigation measures. The environmental assessment will determine what follow up program will be implemented and who (the responsible authorities or the VPA) will be responsible for implementing them.

3.0 PUBLIC PARTICIPATION

The public is invited to provide its views in relation to the following matters:

- the proposed scope of the project, as set out in section 2.1;
- the factors proposed to be considered in the assessment and the proposed scope of

- those factors, as set out in section 2.2; and
- the ability of the comprehensive study to address issues relating to the project.

Should a comprehensive study be conducted for the project, the public will be provided with additional opportunities to participate and provide comment during the environmental assessment, as outlined in sections 1.1 and 1.5. Should the project be referred to a panel for review, the public would have the opportunity to participate in panel hearings.

Following the Minister of the Environment's decision on the type of environmental assessment that is to be conducted, funding will be available from the Canadian Environmental Assessment Agency for members of the public to participate in the environmental assessment.

References

Letter of Intent to Initiate Pre-Application Review, Deltaport Third Berth Project, Roberts Bank, Delta, British Columbia. Letter from D.J. Desjardin, VPA to Raymond L. Crook, Environmental Assessment Office, February 24, 2003.

Preliminary Project Description for the Roberts Bank Container Expansion Program – Deltaport Third Berth Project, Delta, British Columbia. Vancouver Port Authority, June 08, 2004.

Appendix 2 – Notice Requesting Public Comment

Appendix 3 – Public Comments and the RAs Response

PUBLIC COMMENTS AND THE RAs RESPONSE

The following tables provide a summary of written public comments on 1) Scope of Project 2) Scope of Assessment and Factors, and 3) on the Environmental Assessment Track.

1) PUBLIC COMMENTS ON SCOPE OF PROJECT

Written Public Comments – Scope of Project (summary)	RAs Response
The Tsawwassen First Nations (TFN) commented that the nature of the physical works related to the principal and ancillary components and operational details of the proposed project are consistent with their understanding.	Agreed
Several comments were submitted from industry and a few individuals identifying the economic benefits to the province and Canada business based on the location of the Deltaport Third Berth project in relation to the transportation system. Comments also stated that the Project will provide immediate opportunities for business through employment opportunities and will benefit both the local community by way of amenities and increased tax revenues, and the Canadian economy as a whole.	Under CEAA, factors to be considered include effects on the environment that may impact social and economic effects of the Project. A more detailed analysis of socio-economic impacts and benefits will be addressed, however, through the harmonized CEAA/BCEAA review process.
Concerns were submitted from community environmental groups regarding the level of environmental impact that the proposed Deltaport Third Berth expansion would have on the Roberts Bank Ecosystem.	For the Project to receive a favorable review the comprehensive study findings will be based on the Project not to likely cause significant adverse environmental effects.
Roberts Bank is not an appropriate area for ports or port expansion. Concern regarding any development at Roberts Bank due to sensitivity of Roberts Bank Ecosystem.	There has been a port facility at Roberts Bank since 1970. The Roberts Bank port facility was expanded in the early 1980's and the container terminal constructed in the early 1990's. For the Deltaport Third Berth project to receive a favourable review, the comprehensive study findings will consider the need for, alternatives to the Project and will be based on the Project not to likely cause significant adverse environmental effects.

Written Public Comments – Scope of Project (summary)	RAs Response
Comments were received that requested the “scope of project should be viewed alongside parallel proposal for Terminal 2.”	Terminal 2 is a completely separate and independent container terminal to the berth expansion to the existing Deltaport container terminal. The existing and proposed container terminals are not functionally linked, and either project can proceed independently. The VPA have identified the preferred location for Terminal 2 but not the terminal configuration, the on-site services, or the offsite road and rail requirements. However, VPA is communicating early on with the community about proposed developments for the Port of Vancouver. The cumulative environmental effects of Terminal 2 will be addressed to the extent that is reasonable and feasible in the comprehensive study process.
Would prefer no port expansion in the Roberts Bank ecosystem, but if any expansion is done questioned whether the VPA and the government agencies would consider an Environmental and Community Legacy for Delta.	The comprehensive study will have to determine that the proposed project is not likely to cause significant adverse environmental effects or it will not be approved. The VPA has identified their intent to undertake an environmentally and socially sustainable project, which will be evaluated through the comprehensive study Process.
How many new cranes will be installed -will it be 3 or 4?	The Scoping Document references the “Preliminary Deltaport Third Berth Project Description” prepared by the VPA where three ship-to-shore gantry cranes are identified for the Third Berth project. This information has also been communicated to the public by the VPA as part of their community consultation program.

2) Public Comments on the Scope of Assessment and Factors

Written Public Comments – Scope of Assessment & Factors (summary)	RAs Response
Comments were received that requested more detailed traffic studies and suggested consideration of a dedicated truck route adjacent to the current railway track.	Road, rail and marine traffic studies are included in the Scoping Document in the Scope of Factors to be considered for the comprehensive study.

Written Public Comments – Scope of Assessment & Factors (summary)	RAs Response
Noted that Third Berth expansion will directly and indirectly impact the lands, people, waters and environment of TFN, including the proposed treaty settlement and traditional territories.	The scope of the assessment and the factors to be considered will assess the Project impacts on the marine environment and the uplands which will include TFN reserve lands and where there is an impact, proposed treaty settlement and traditional territories. Aboriginal Traditional Knowledge will also be considered, and this was added to the Scope of Factors.
Recommend that scope of assessment be expanded to include direct and indirect effects on a broad range of environmental components including biophysical, resource use and socio-economic components.	Under CEAA, factors to be considered include effects on the environment that may impact social and economic effects of the Project. A more detailed analysis of socio-economic impacts and benefits will be addressed, however, through the harmonized CEAA/BCEAA review process. Where possible in-direct effects will be addressed in the cumulative effects section of the comprehensive study.
Recommend that aboriginal traditional use and knowledge be considered throughout the CEAA Assessment.	The comprehensive study will consider community knowledge and aboriginal traditional knowledge in conducting the environmental assessment of the Project. The Scope of factors has been revised to include this in the factors to be considered.
More detailed information was requested on the scope of factors such as coastal geomorphology, geology/seismic, sediment quality, water quality marine environment, waterfowl and coastal seabirds, and terrestrial wildlife.	The scope of factors identified in the scoping document was intended to give a concise overview of the extent of factors that will be considered in the comprehensive study for the Project.
Recommend that the Malfunctions and Accidents Section be combined with "any changes to the Project that may be caused by the environment" under the heading "Potential Hazards" referring to "threats to the environment resulting from sudden events.	The Malfunctions and Accidents is a CEAA requirement and for document continuity should remain as separate section. This section will deal with the threats to the environment resulting from sudden events.
There was support for inclusion of powerline bird mortality study in the scope of factors to be considered and there was request that construction be scheduled around months when bird use is minimal.	Impacts on valued ecosystem components (VECs) such as coastal waterfowl will be considered as part of the comprehensive study and a construction environmental management plan will be required to minimize impacts to

Written Public Comments – Scope of Assessment & Factors (summary)	RAs Response
	VECs during sensitive periods.
Suggest that adverse effects of climate change should be considered with regards to weather types for both Deltaport Expansion and Terminal 2 combined.	The Malfunctions and Accidents section will deal with the threats to the environment resulting from sudden events. The effects of climate change will be considered for the Project area in regards to the potential change in the frequency and severity for storm events for Deltaport Third Berth. The cumulative environmental effects shall examine to the extent that is reasonable and feasible, the interactions among environmental effects of the Project, and past and future projects and activities.
Concern that one year is too short a time frame for allocated field studies.	Roberts Bank has been to subject of a number of field studies since its initial construction as a port facility in the 1970's. A one-year program of field studies to cover off seasonality differences and develop current data that can be compared to previous studies is considered appropriate.
There was interest in reviewing reports and providing greater input to the study process.	The Deltaport Third Berth application to BCEAA will be made available to the public for review. During this time the VPA will continue with its community consultation program. The public will also have the opportunity to comment on the conclusions and recommendations of the comprehensive study Report prepared by the RAs and VPA.
Request for a cumulative "comprehensive study to cover all projects forecasted into the future" that includes off site projects related to the Project. Questioned the impact that project will have on previous mitigation efforts and whether they will be destroyed. Questioned if there is a clear understanding of "damage or impact" that current terminal has had on environment.	In accordance with CEAA, the comprehensive study will take into account the local circumstances and any cumulative environmental effects that may result from the Project in combination with other projects that have been or will be carried out. In 2000, VPA hired a consultant to convene a process with stakeholders and undertake a cumulative effects study of port expansion activities and determined the extent of baseline data. RA's will be using past studies related to development in Robert's Bank and best available data/information in the assessment of this project.

Written Public Comments – Scope of Assessment & Factors (summary)	RAs Response
<p>Questioned whether the evaluation of cumulative environmental effects of all developments on Roberts Bank will result in compensation for the cumulative loss of habitats resulting from the contravention of the FEAR panel recommendations (1979) (widened causeway, extra pod and ship turning basin and resulting erosion channels) and recent expansion of the railway track.</p>	<p>In accordance with CEAA, the comprehensive study will take into account the local circumstances and any cumulative environmental effects that may result from the Project in combination with other projects that have been or will be carried out. This includes the Roberts Bank port expansion of the early 1980's. Appropriate mitigation and compensation for adverse environmental impacts will be determined in the assessment.</p>
<p>Questioned effect of dendritic channeling and impact that it is having in area.</p>	<p>This will be addressed in the Coastal Geomorphology study that is included in the scope of factors to be considered in the comprehensive study.</p>
<p>Concern regarding dredging and expansion damage to feeding territories for Brant Geese</p>	<p>This will be addressed in the Waterfowl and Coast Seabird study that is included in the scope of factors to be considered in the comprehensive study.</p>
<p>Concern regarding health and stability of eelgrass and requested cumulative environmental assessment of the eelgrass community at Roberts Bank</p>	<p>This will be addressed in the Marine Environment Study that is included in the scope of factors to be considered in the comprehensive study. The comprehensive study will also take into account the eel grass beds and any cumulative environmental effects that may result from the Project in combination with other projects that have been or will be carried out.</p>
<p>Concern regarding effect the expansion could have on Pacific Flyway, fisheries and general quality of life.</p>	<p>These concerns will be addressed in the Waterfowl and Coastal Seabird Study, Marine Environment Study that is included in the scope of factors to be considered in the comprehensive study. Under CEAA, factors to be considered include effects on the environment that may impact health, social and economic conditions. Detailed analysis of socio-economic conditions. Detailed analysis of socio-economic impacts and benefits will be addressed through the harmonized CEAA/BCEAA review process.</p>
<p>Questioned whether “the federal and provincial agencies will require a cumulative impact of</p>	<p>The comprehensive study will also take into account the dendritic channel formation as part</p>

Written Public Comments – Scope of Assessment & Factors (summary)	RAs Response
the extra 1980 expansion that was done contrary to the FEAR panel 1979 recommendations, especially the dendritic erosion channels in the inter-causeway foreshore.”	of the Coastal Geomorphology that is include in the scope of factors to be considered. In accordance with CEAA, the comprehensive study will address any cumulative environmental effects that may result from the Project in combination with other projects <u>that have</u> been or will be carried out will be assessed.
Who would respond to incidents involving dangerous goods? Questioned “whether the environmental assessment process addresses the need for an Environmental Management Plan for Deltaport and an Emergency Response Plan?”	This will be addressed in the Malfunctions and Accidents that is included in the scope of factors to be considered in the Comprehensive study.
Questioned the need for additional capacity for containers and asked if alternatives have been explored.	The comprehensive study will evaluate the purpose of the Project, alternatives to, and 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 follow up, and effects on renewable resources.
Concerns regarding air quality and additional truck traffic were raised. “There is a need to address air quality issues relating to nitrogen and fine particulates emitted by heavy diesel vehicles.”	Potential effects such as emissions from trucks, as well as trains, marine vessels and personal vehicles will be addressed in the Air Quality Study with input from the Traffic and Transportation Study that is included in the scope of factors to be considered in the comprehensive study.
Support that the “scoping document identifies environmental and socio-economic studies to address potential impacts and appropriate mitigation.”	Under CEAA, factors to be considered include effects on the environment that may impact social and economic effects of the Project. A more detailed analysis of socio-economic impacts and benefits will be addressed, however, through the harmonized CEAA/BCEAA review process.
Noted that scope of factors (Section 2.1.1) to be considered require comprehensive study to investigate, study and analyse environmental impacts.	Support for the scope of factors and ability of comprehensive study process to address factors.
Questioned whether data collected on the	The Waterfowl and Coastal Seabird, Marine

Written Public Comments – Scope of Assessment & Factors (summary)	RAs Response
behaviour of birds, mammals and fish over and around the pods especially during spring and fall migration of birds will be done under different weather conditions?	Environment and Terrestrial studies are being conducted over a one-year period and will be done under different weather conditions.
Questioned whether the cumulative assessments be made to estimate the impact of current developments on slope stability on Roberts Bank.	Impacts on slope stability will be addressed in the Geology/Seismic overview study that is included in the scope of factors to be considered in the comprehensive study.
Questioned “whether current studies are being extended to North West.”	Several studies are included in the scope of factors to be considered that extend to the northwest of the Roberts Bank port facility including coastal geomorphology, marine environment, coastal seabirds, air quality and water quality studies.
Concerned as to the lack of "hooding" of the lighting and the seemingly uncontrolled intense lighting far in to the night which streams into bedroom.	This potential effect will be addressed in the Visual and Lighting Impact Study that is included in the scope of factors to be considered in the comprehensive study. The comprehensive study will also take into account the need for mitigation of existing light sources for the Roberts Bank facility.

3.) Public Comments on the Assessment Process

Written Public Comments on Assessment Process (summary)	RA Response
Overall, ten comments from received from industry or business groups, two comments received representing the interests of the Tsawwassen First Nation, and one comment from a private citizen supported the comprehensive study process and its ability to address environmental issues.	Support comprehensive study process.
Overall, seven comments received from environmental interest groups, two private citizens, as well as, the Tsawwassen Homeowners Association and the Corporation of Delta do not want the Project assessed as a comprehensive study, but rather support a	Although there is support for a panel review, the RAs are of the opinion that a comprehensive study can address the need for the Project; allow for many opportunities for public input through a harmonized BCEAA/CEAA process; and, address environmental

Written Public Comments on Assessment Process (summary)	RA Response
<p>Panel Review process to address as they feel i) it could address whether the port expansion is justified, ii) it would allow public and organizations significant input into the assessment of the Project, iii) better examine the potential for impacts on the environment.</p>	<p>concerns through the EA process.</p>
<p>The Corporation of Delta requested an extension on public comment period until October 23, 2004. The Corporation as well as another environmental interest group did not feel that enough time was provided and that comment period should not have occurred in summer months.</p>	<p>The Corporation of Delta and the public have been made aware of the Project since February 2003 and have had the opportunity to raise issues to the VPA, at their various open houses, and to the RAs as part of the BCEAA Process. The VPA worked with the RAs to determine scope of factors as a result of these earlier public consultations. The scoping document was made available for public comment for 31 days upon the advice of the Agency. The BCEAA application will once again be made available for public review. The comprehensive study process allows the public for an opportunity to comment on the environmental assessment in conjunction with the public consultation process under the BCEAA. During this time the VPA will also continue with its community consultation program and seek input on the Project from Delta and the community. The public will also have the opportunity to comment on the conclusions and recommendations of the comprehensive study Report prepared by the RAs and VPA prior to submission to the Minister.</p>