Proposed Roberts Bank Terminal 2 Project
Pre-Design Consultation
Consideration of Consultation Input

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INTRODUCTION

Port Metro Vancouver is a port authority created pursuant to the *Canada Marine Act.* The purpose of the *Canada Marine Act* is to, among other things: promote the success of Canadian ports to contribute to the competitiveness, growth and prosperity of the Canadian economy; ensure that marine transportation services satisfy the needs of users at a reasonable cost; provide for a high level of safety and environmental protection; and manage marine infrastructure in a commercial manner, taking into account input from users and the community. Port authorities are accountable to the federal Minister of Transport.

As part of a multi-year consultation process that began in 2011, Port Metro Vancouver undertook Pre-Design Consultation with the public, local governments, and stakeholders regarding the proposed Roberts Bank Terminal 2 Project between October 7, 2013 and November 12, 2013. The consultation included multiple opportunities to participate. Participants were provided with a Pre-Design Consultation Discussion Guide that included information about the proposed Roberts Bank Terminal 2 project as well as additional information related to Port Metro Vancouver initiatives.

Port Metro Vancouver is undertaking a separate, but parallel consultation process with Aboriginal groups regarding the proposed Roberts Bank Terminal 2 Project.

Pre-Design Consultation Participation:

- **196 people** attended consultation events:
  - **100 people** attended 6 stakeholder meetings
  - **96 people** attended 5 open houses
- **84 feedback forms** were received
  - 63 through the online feedback form and 21 in hard copy
- **44 submissions** were received through email and mail

Consultation Topics:

During Pre-Design Consultation, Port Metro Vancouver sought feedback regarding the following topics:

- **Habitat mitigation** [Refer to page 23 in the Pre-Design Consultation Discussion Guide]
  Port Metro Vancouver is exploring ways to mitigate potential project effects on fish and wildlife habitat at Roberts Bank. While mitigation of potential effects will be determined by regulators through the environmental assessment process, Port Metro Vancouver sought feedback regarding four potential categories of mitigation:
  - Development of multiple smaller, species-specific habitat areas;
  - Focus on restoration and/or protection of a large habitat area;
  - Infrastructure (e.g. development of infrastructure projects that benefit fish, wildlife and/or birds); and
  - Community resources (e.g. funding or partnering with community resources dedicated to protecting or supporting fish, wildlife and/or birds).

- **Port-related truck traffic improvement** [Refer to page 26 in the Pre-Design Consultation Discussion Guide]
  The transportation of containers through Port Metro Vancouver terminals is complex and involves multiple stakeholders. Port Metro Vancouver is looking at practices that other ports have successfully implemented to improve efficiency and reduce the effect of port-related truck traffic on local communities. Port Metro Vancouver sought feedback on the following port-wide truck traffic improvement strategies:
  - Infrastructure improvements;
  - Operational improvements; and
  - Technological improvements.

- **Community legacy benefits** [Refer to page 29 in the Pre-Design Consultation Discussion Guide]
  Port Metro Vancouver has initiated discussions with local government and local communities regarding potential community legacy benefits that could be provided as part of the Container Capacity Improvement Program (CCIP). Port Metro Vancouver developed a list of potential community legacy benefits under the categories of environment, community well-being and recreation, and transportation, and sought feedback regarding these options.

How Input Will Be Used:

Input received during Pre-Design Consultation is considered, along with technical and financial information, in developing Project designs or plans, including engineering and environmental mitigation plans and legacy benefits.

A Consultation Summary Report summarizing feedback received during this consultation period is available online at www.portmetrovancouver.com/RBT2. This Consideration of Input document summarizes the input received from stakeholders during Pre-Design Consultation regarding the proposed Roberts Bank Terminal 2 Project, and describes how this input has been considered to date by Port Metro Vancouver.

Port Metro Vancouver welcomes your comments at any time through PortTalk, an online platform to receive feedback on Port-led projects. For more information or to provide feedback or suggestions, visit the website: http://porttalk.ca/

Consideration of Consultation Input:

PROJECT RATIONALE

Topic	Consultation Input	Consideration of Input
Project rationale	Skepticism regarding project rationale, specifically that demand for additional container capacity has been overstated	Port Metro Vancouver has committed to regular container traffic forecast updates as part of the Container Capacity Improvement Program (CCIP). By obtaining forecasts from multiple independent sources, Port Metro Vancouver can form a reliable and robust view of future container volumes. In 2011, Seaport, an independent party, developed a "Preliminary Container Traffic Projections for Port Metro Vancouver," which provided preliminary projections of Port Metro Vancouver's container traffic to the year 2030. The results of this forecast aligned with a subsequent report completed in 2012, undertaken by a separate and independent party, Ocean Shipping Consultants (OSC). The OSC study is a comprehensive forecast that projects container volumes through the west coast of Canada, including Port Metro Vancouver and Prince Rupert, to the year 2050. Ocean Shipping Consultants' July 2013, "Port Metro Vancouver Container Forecast Update" report further supports original forecasts that demand for container traffic through Canada's west coast will more than double in the next 10 to 15 years. All of these forecasts account for a range of global economic and shipping trends, including the anticipated opening of the expanded Panama Canal in 2014. Port Metro Vancouver will continue to update its container forecasts as part of the planning and review process for the proposed Roberts Bank Terminal 2 Project. Forecast reports are available on the Project website: www.portmetrovancouver.com/RBT2, including the Port Metro Vancouver Container Forecasts (Ocean Shipping Consultants – Final Update July 2013) http://www.robertsbankterminal2.com/wp-content/uploads/Port-Metro-Vancouver-Container-Traffic-Forecast-Ocean-Shipping-Consultants-July-20131.pdf
Project rationale	Port expansion should occur elsewhere in Port Metro Vancouver's jurisdiction	PMV's land use objectives include optimizing the use of existing port lands and waters and working with customers, stakeholders, local governments and agencies to develop strategies and identify opportunities to optimize supply chain movements within and beyond the Metro Vancouver region. **Fraser Surrey Docks** has existing container facilities and land available for expansion; however, larger vessels, such as those currently visiting Deltaport, cannot be accommodated in the Fraser River due to their length, which prevents the turning required to proceed downriver. Additionally, the water depth restrictions of the Fraser River – as a result of both the George Massey Tunnel and the existing depth of the river on either side of the tunnel – limit access by deep-sea container ships, thus limiting the ability of Fraser Surrey Docks to provide any additional container capacity into the future. **The Inner Harbour terminals** (Vanterm and Centerm) were expanded and upgraded in 2005 to increase container capacity. The recent decision to consolidate cruise operations at Canada Place from 2015 onwards has provided an opportunity to accelerate plans for inner harbour container expansion at Centerm, helping to address anticipated growth in container traffic on the west coast of Canada. Subject to required approvals and permits, this expansion could

Topic	Consultation Input	Consideration of Input
		provide an estimated increase of between 400,000 and 900,000 twenty-foot equivalent container units (TEUs) of additional container capacity by 2018. The Centerm Expansion Project however, only addresses near-term capacity constraints within Port Metro Vancouver terminals, and does not change the requirement for the significant additional container capacity needed no later than the early-to mid-2020s. **Deltaport** was expanded in 2010 with the Deltaport Third Berth Project that added 600,000 TEUs of capacity. The Deltaport Terminal, Road and Rail Improvement Project (DTRRIP), to be completed in 2016/2017, will increase container throughput by 600,000 TEUs at the Deltaport Terminal by undertaking improvements at the terminal, increasing the capacity of the intermodal yard, and improving the efficiency of the road and rail infrastructure leading to the terminal. The causeway overpass, the first component of the DTRRIP project to be built, is expected to be complete in late 2014, and additional container capacity at the Deltaport Terminal is anticipated to come online between 2015 and 2017. **Lynnterm,** an existing break bulk container terminal in North Vancouver, was considered for conversion to container handling; however, the terminal's adjacent road network does not have sufficient capacity to accommodate the number of container trucks required and therefore limits its ability as a container terminal. Lynnterm is being considered for bulk handling expansion. Despite adding capacity at existing terminals where possible, a new terminal that will deliver over 2 million TEUs needs to be built no later than the early to mid-2020s to meet forecast demand. Given the constraints noted above and the forecast future demand, the proposed Roberts Bank Terminal 2 Project is considered to be the next viable option to provide the necessary container capacity in Port Metro Vancouver's jurisdiction. Roberts Bank is an established trade corridor and is well positioned to accommodate future growth in trade activity. Roberts Bank has several competitive advantages, including its proximity to major transportation corridors for both truck and rail movements and for its efficient ship-to-rail design.
Project rationale	Additional container capacity should be limited to Prince Rupert	Additional container capacity on the Canadian west coast was added in 2007 when the Port of Prince Rupert converted its Fairview terminal from a break bulk terminal to a container terminal with an approximate capacity of 750,000 TEUs. Maher Terminals, the operator of Fairview Terminal in Prince Rupert, has planned expansions of their terminal which are expected to increase its capacity to 2 million TEUs. Ocean Shipping Consultants' July 2013 "Port Metro Vancouver Container Forecast Update" report considers the planned expansion at Prince Rupert and still indicates that demand for container traffic through Canada's west coast will more than double in the next 10 to 15 years. This report can be accessed on the Project website: http://www.robertsbankterminal2.com/wp-content/uploads/Port-Metro-Vancouver-Container-Traffic-Forecast-Ocean-Shipping-Consultants-July-20131.pdf In the long term, additional capacity at both Prince Rupert and Port Metro Vancouver are needed to ensure that demand for containerised trade on the Canadian west coast is met.

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Project rationale	Support for the development of an inland terminal in Ashcroft	Ashcroft is approximately 350 kilometers from Vancouver and currently operates as a bulk materials transload site. Ashcroft has been public about looking at a number of potential opportunities including expansion to a multi-modal transportation hub. The development of this site would require investment in extensive preparation and services to accommodate proposed expansion. While an inland terminal may create or respond to demand for import transloading and export stuffing, it does not materially impact the capacity of the marine terminal to handle cargo across the berth.
Project alternative (Short sea shipping)	Port Metro Vancouver should implement short-haul rail or short sea shipping (for empty and/or loaded containers)	Short sea shipping has been proposed by members of the community as a potential solution to mitigate truck traffic. This practice would entail the transportation of containers by barge between deep-sea terminals and various container handling facilities within the Lower Mainland. As only approximately one-third of the import containers leave the marine terminal by truck[1] and are transported either to a transload facility or their ultimate destination in Western Canada, short sea shipping by barge to a facility on the Fraser River would not completely replace truck transportation. This is because trucks would still be needed to transport containers between the Fraser River facility and the transload or warehouse facilities, and then ultimately to Canadian National Railway (CN) or Canadian Pacific Railway (CP) domestic intermodal yards. A cost effective and efficient short sea shipping operation in the Lower Mainland would require a facility that provides riverfront access, transload and warehouse facilities as well as access to road and rail infrastructure. While the use of short sea shipping within Port Metro Vancouver would not be able to replace the need for a new terminal, the proposed Roberts Bank Terminal 2 Project is being designed to accommodate a future modification to add a short sea shipping operation, should this activity become feasible at some time. With regard to short haul rail, the Southern Railway of British Columbia (SRY) is a short haul railway company that services the Lower Mainland and Fraser Valley. SRY interchanges with three long-haul North American Class I railroad partners: Canadian National Railway (CN), Burlington Northern-Santa Fe Railway (BNSF), and Canadian Pacific Railway (CP). If these railway companies identify a viable business opportunity related to either Deltaport or the proposed Roberts Bank Terminal 2, Port Metro Vancouver would be pleased to explore it with them.

[1] The other two-thirds of containers leave the terminal by train.

ENGINEERING

Topic	Consultation Input	Consideration of Input
Power Lines	Request to bury the power lines on the Roberts Bank causeway	The design of the proposed Roberts Bank Terminal 2 does not include new power lines because the existing lines have sufficient capacity for current and new requirements. Port Metro Vancouver has no plans to bury the existing power lines on the existing causeway because of the risk of failure and lengthy repair required in the case of a seismic event.
Dredging	Dredged material from dredging projects should be used for habitat projects	It is anticipated that the land for the proposed Roberts Bank Terminal 2 Project would be created primarily using a combination of fill material from dredging the future berth area and from the annual Fraser River maintenance dredging program. Requirements for sand as part of any project within the Habitat Enhancement Program will be considered on a case-by-case basis. Port Metro Vancouver is assessing the suitability of dredged sediments from local channels to determine whether it is feasible to beneficially re-use the material for projects proposed under the Habitat Enhancement Program. One case where the beneficial use is being realised is the Glenrose Tidal Marsh Project. The Glenrose habitat enhancement project is using approximately 7,000 cubic metres of dredgate from the Gunderson Slough channel which would otherwise have been paid for out of the Local Channel Dredging Contribution Program, thereby leaving more funds available under that program. In addition to the Glenrose habitat enhancement project, Port Metro Vancouver is also exploring the beneficial use of dredgate from Canoe Passage and Sea Reach which would otherwise need to be funded by the $10 million Ladner Steveston project, again leaving more funds available.
Dredging	Suggest dredging secondary channels in Ladner to prevent silting	In addition to the above, Port Metro Vancouver has committed $7 million toward dredging programs to remediate silting in the secondary channels through its Local Channel Dredging Contribution Program (http://www.portmetrovancouver.com/en/projects/LocalChannelDredgingContributionProgram.aspx). Through this Program, Port Metro Vancouver, together with Fisheries and Oceans Canada (DFO), the British Columbia Ministry of Transportation and Infrastructure (MoTI), the Corporation of Delta and the City of Richmond, have committed $10 million for the dredging of local channels around Ladner and Steveston. This work commenced in the Ladner Harbour in January 2014.

Environmental Studies

Port Metro Vancouver produces monthly field studies information sheets that describe the work occurring at Roberts Bank and the surrounding areas, including the purpose, area, methods and timing of studies. To receive monthly field studies information sheets, please sign up at the website: www.portmetrovancouver.com/RBT2.

As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has been and continues to undertake desktop, modelling and field studies at Roberts Bank and the surrounding areas. These studies are part of the planning phase focused on collecting information that provides an understanding of current and future conditions in all of the study areas. The terms of reference for these field studies are available on the Project website www.portmetrovancouver.com/RBT2. Additional studies may be added or changed based on recommendations from regulators and others stakeholders.

Once potential Project-related effects are identified as part of the effects assessments, Port Metro Vancouver will develop and evaluate options for mitigation measures for inclusion in the Environmental Impact Statement (EIS) that will be submitted to the regulators in early 2015.

Topic	Consultation Input	Consideration of Input
Environmental Effect	Concerns about potential environmental effect of the project on fish, birds and wildlife at Roberts Bank	As part of the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver is undertaking technical studies in and around Roberts Bank to assess current conditions. This work will form the basis of the effects assessment to be conducted as part of the environmental assessment.
Environmental Effect	Concerns about environmental effects from the current port activities at Deltaport	Port activities and related infrastructure development at Deltaport have undergone environmental assessment processes as required and explained below: The Deltaport Third Berth Project (DP3) has increased the capacity of Deltaport by up to 600,000 TEUs (twenty-foot equivalent units) by adding a third berth and 20 hectares of container storage to the existing two-berth container terminal. The DP3 obtained provincial approval under the *British Columbia Environmental Assessment Act* and federal approval following a review under the *Canadian Environmental Assessment Act*. The DP3 Project was comprehensively reviewed by federal and provincial government agencies through a single, harmonized environmental assessment process facilitated by the B.C. Environmental Assessment Office (EAO) and was open to the full participation of stakeholders and the general public during all phases of the review. As part of DP3, Port Metro Vancouver committed to investing approximately $25 million to implement more than 150 commitments to protect the environment, including a construction Environmental Management Plan, a comprehensive Fish and Wildlife Habitat Compensation Plan, a Marine Mammal Monitoring Program and an Adaptive Management Strategy for the intercauseway area. Additionally, the East Causeway Habitat Compensation Project includes transforming the land beside the Roberts Bank causeway into diverse marine and wildlife habitat. The Adaptive Management Strategy (AMS) associated with Deltaport uses a science-based approach to monitor and respond to changes in the Roberts Bank ecosystem (primarily focused on coastal geomorphology, surface water and sediment quality, eelgrass distribution, benthic community structure, and coastal seabird/shorebird composition). The approach allows for the early detection of changes in the intercauseway ecosystem so that potential significant negative ecosystem trends that are attributable to the DP3 Project can be prevented or mitigated. The AMS was

Topic	Consultation Input	Consideration of Input
		developed in conjunction with and approved by Environment Canada. For more information about Deltaport Third Berth, visit the website: http://www.portmetrovancouver.com/en/projects/ongoingprojects/Deltaport_Third_Berth_Project/Environment.aspx The Deltaport Terminal, Road and Rail Improvement Project (DTRRIP) commenced a screening-level environment assessment under the *Canadian Environmental Assessment Act (CEAA)* in October 2011. As part of the federal government's plan for Responsible Resource Development, which seeks to modernise the regulatory system for project reviews, the *CEAA* was repealed when the *Canadian Environmental Assessment Act, 2012 (CEAA 2012)* came into effect on July 6, 2012. Though DTRRIP was no longer subject to review under *CEAA 2012*, Port Metro Vancouver continued the environmental assessment review in order to meet the requirements of the *CEAA 2012*, and Port Metro Vancouver's Environment Policy. The DTRRIP environmental review is now complete and information is available online at: http://www.portmetrovancouver.com/en/projects/ongoingprojects/dtrrip/Environment.aspx
Cumulative Effects	Concerns about the cumulative effects of the proposed Roberts Bank Terminal 2 Project and other projects in the area	Cumulative effects refer to the effects of projects and activities that have been carried out as well as of future projects and activities that are certain or reasonably foreseeable, that are likely to interact with the effects of the Project in a cumulative manner. The scope of the cumulative effects assessment is guided by the document "Preparation of an Environmental Impact Statement for the Roberts Bank Terminal 2 Project" (the Guidelines) , issued by the Canadian Environmental Assessment Agency and guidance provided in the document "Operational Policy Statement: Assessing Cumulative Environmental Effects Under the *Canadian Environmental Assessment Act, 2012"*. The "Guidelines" are available online at https://www.ceaa-acee.gc.ca/050/documents/p80054/97463E.pdf. The cumulative effects assessment for the proposed Project considers the effects of other projects and activities that have been or will be carried out that are likely to interact cumulatively with the effects of the proposed Project.
Coastal Geomorphology	Concerns about the effects of the project on sedimentation and water flow	As part of the environmental study program for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has undertaken coastal geomorphology field studies at Roberts Bank and the surrounding areas to support subsequent numerical modelling of waves, tidal currents and sediment transport. Examples of field studies at Roberts Bank related to coastal geomorphology include: • Measurement of channel discharge, sediment concentration, temperature and salinity in Canoe Passage; • Collection of seafloor elevation survey data representative of the Project area; • Measurement of salt content and clarity within the water column; • Measurement of short-term erosion and deposition on the tidal flats; • Collection of sediment cores from the upper tidal flats; • Measurement of wave characteristics within the Project region (wave height and direction); and • Measurement of water flow across the tidal flats. These studies focus on collecting information to develop an understanding of current and future conditions.
Birds	Concerns about the effect of the project on migratory birds	As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has undertaken studies related to birds and bird habitat at Roberts Bank and the surrounding areas. Examples of field studies related to birds and bird habitat include:

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		• Determining abundance and seasonal distribution of coastal seabirds, shorebirds and waterfowl at Roberts Bank; • Determining the abundance and distribution of overwintering shorebirds across the Fraser River Estuary and adjacent upland habitat; • Determining whether Pacific Dunlin using Roberts Bank comprise a genetically unique group within the Fraser River Estuary; • Determining locations of greatest use, food availability and habitat quality for Western Sandpipers in the Fraser River Estuary during their spring migration; and • Determining the importance of the Fraser River Estuary as a source for food and habitat for migratory birds. These studies focus on collecting information to develop an understanding of current and future conditions in the study areas.
Orcas	Concerns about the effects of the project on orcas	As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has been and continues to undertake marine mammal related field studies at Roberts Bank and the surrounding areas. Current field and desktop studies related to marine mammals include: • Collecting baseline data on ambient underwater noise levels and southern resident killer whales (SRKW) presence at Roberts Bank; • Identifying behavioural response thresholds for SRKW and other marine mammals; • Determining noise effects of operating vessels; • Assessing underwater noise and the potential for the interruption of sound communications signals from SRKW; • Assessing vessel traffic noise, and SRKW use in the area to determine whether SRKW use of the area changes with underwater noise from vessels; • Assessing available prey for consumption by marine mammals; • Assessing underwater noise and the potential for the SRKW feeding on prey, primarily fish, to be interrupted by underwater vessel noise; • Assessing potential effects of marine vessel strikes to marine mammal; and • Assessing contaminant levels in the prey species and the risk that potentially poses to marine mammals. These studies focus on collecting ambient and current information to develop an understanding of current and future conditions in all of the study areas.
Biofilm	Concerns about the effects of the project on biofilm	As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has undertaken biofilm and micro-organism studies at Roberts Bank and the surrounding areas. Examples of field studies related to biofilm include: • Mapping the distribution of biofilm in the Fraser Estuary; • Identifying major groups of organism that make up biofilm; and • Identifying factors that influence biofilm growth, productivity and regeneration. These studies focus on collecting information to develop an understanding of current and future conditions in the study areas.

Topic	Consultation Input	Consideration of Input
Energy / Shore power	All ships should be required to use shore power at Roberts Bank	Shore power allows ships to plug into an electrical power source at the wharf, meaning they can turn off their diesel engines and associated electrical generators, and reduce air emissions. Shore power has been incorporated in preliminary plans as a standard feature on all three berths of the proposed Roberts Bank Terminal 2 Project. In addition to including shore power at the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver is working with the shipping industry and regulatory agencies to reduce emissions to air from ocean going vessels. The existing Port Metro Vancouver Air Action Program works to reduce emissions now and to help maintain good air quality for the future. Key components of the Air Action Program are: • **EcoAction Program**: Port Metro Vancouver's EcoAction Program promotes attainable emissions reduction goals for ocean-going vessels that enter the port, and rewards those who excel in environmental stewardship. In 2010, the Blue Circle Award was launched for the EcoAction Program for Shipping, a user-friendly financial incentive for shipping lines that reduce emissions of their ocean-going vessels. • **The North American Emission Control Area (ECA):** The ECA initiative adopted by Canada mandates the use of low sulphur fuels within a 320 km distance off the coast of North America. By January 1, 2015, ships will not be allowed to use fuel with sulphur content greater than 0.1 per cent (lowered from an average of about 2.7 per cent in 2012). This will also result in lowered particulate matter emissions ($PM_{2.5}$), which are partially related to sulphur dioxide (SO_2) emissions. Under the ECA initiative, newer ships will be required to have reduced nitrogen dioxide (NO_2) emission levels. • **Northwest Ports Clean Air Strategy**: Port Metro Vancouver is working with the ports of Seattle and Tacoma to address port-related contributions to air quality and climate change in the Georgia Basin Puget Sound air shed through the Northwest Port's Clean Air Strategy. • **Port Metro Vancouver Landside Air Emissions Inventory**: Port Metro Vancouver led the development of a port landside emissions inventory of common air contaminants, greenhouse gases with support from Environment Canada and Metro Vancouver. • Environmental requirements through the **Truck Licensing System**: In 2008 Port Metro Vancouver introduced a Container Truck Licensing System (TLS). Requirements focus on the phasing out of older trucks, mandatory opacity and idling limits and an awareness program. Consistent with the Northwest Ports Clean Air Strategy, the requirements will bring the fleet up to the equivalent of a 2007 truck for particulate matter emissions. Additional information about Port Metro Vancouver's Air Action Program is available at the website: (http://www.portmetrovancouver.com/en/environment/initiatives/Air.aspx)

AIR QUALITY

Topic	Consultation Input	Consideration of Input
Air Quality	Concerns about air quality, air pollution	Metro Vancouver's 2013 "Caring for the Air" report indicates that air quality has generally improved over the last 10 to 20 years, despite growth and development in the region. This is a result of policies and technological improvements including, but not limited to reduced permissible levels of sulphur in car and truck fuels, adoption of Metro Vancouver's Air Quality and Greenhouse Gas Management plan, and increasing air emissions standards for marine vessels in Canadian waters. To review this report visit the website: http://www.metrovancouver.org/services/air/Documents/Caring_for_the_Air-MV2013.pdf. The existing Port Metro Vancouver Air Action Program works to reduce emissions now and to help maintain good air quality for the future. Key components of the Air Action Program, as described on page 11, include: • EcoAction Program; • ECA initiative • Northwest Ports Clean Air Strategy; • Port Metro Vancouver Landside Air Emissions Inventory; and • Environmental Requirements through the Truck Licensing System Information about Port Metro Vancouver's Air Action Program is available at the website: (http://www.portmetrovancouver.com/en/environment/initiatives/Air.aspx) Port Metro Vancouver also cooperates with Metro Vancouver and the Fraser Valley Regional District, which operate a network of air quality monitoring stations in the Lower Fraser Valley. The stations monitor a variety of common air contaminants including nitrogen dioxide (NO_2), sulphur dioxide (SO_2), carbon monoxide (CO), ozone (O_3), and particulate matter (PM_{10} and $PM_{2.5}$). For more information about Metro Vancouver's air quality monitoring program visit the website: http://www.metrovancouver.org/services/air/currentairquality/Pages/default.aspx As part of the Deltaport Third Berth Project (DP3), Port Metro Vancouver funded the establishment of the Tsawwassen Air Quality Monitoring Station. The location of the station, at Pebble Hill Reservoir located at 411 Milsom Wynd in Delta, was chosen by the Delta Air Quality Monitoring Technical Working Group (composed of representatives from Corporation of Delta, Environment Canada, Metro Vancouver, Tsawwassen First Nation and Port Metro Vancouver). The station is comprised of state-of-the-art monitoring equipment including ozone and particulate monitoring technologies. Since this station is part of Metro Vancouver's regional air quality monitoring network, results from the station can be viewed in real-time at www.bcairquality.ca/readings. Air quality studies are part of the ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project. The air quality assessment involves the development of an inventory of emissions and modelling of those emissions to evaluate existing and future conditions, both with and without the proposed Project to determine any changes in air quality resulting from the Project.
Emissions / Air Quality	Container truck emissions should be tested randomly and regularly	A Port Metro Vancouver Truck Licensing System (TLS) license is required by any truck wishing to access Port Metro Vancouver's property in order to transport containers to or from any of the terminals. Port Metro Vancouver has increasingly stringent environmental requirements associated with the TLS.

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		Requirements of TLS focus on the phasing out of older trucks, mandatory opacity and idling limits and an awareness program. The TLS requires trucks to reduce idling within Port Metro Vancouver terminals to no more than three continuous minutes in any hour, and restricts the age and emission standards of vehicles that are allowed to enter Port Metro Vancouver terminals. In order to receive a TLS license, documentation must be provided that demonstrates that trucks 10 years and older have undergone opacity testing, consistent with the methodology used by British Columbia's Ministry of Transportation and Infrastructure. Additionally, Port Metro Vancouver requires trucks to meet a more stringent opacity limit of 20 per cent on an annual basis, with a one year exemption if they achieve 10 per cent or less. This is in comparison to random roadside testing conducted by the province, which has a limit of 40 per cent for similarly aged vehicles. By 2017, all trucks that access Port Metro Vancouver terminals will be required to achieve a 2007 engine emission performance or better for particulate matter.
Emissions / Energy	All trucks accessing port facilities should be required to be fuelled by natural gas	Vehicle emissions are controlled by engine and fuel standards set and enforced by regulators. Today's commercial engine standard (effective since 2010), has significantly reduced emissions of particulate matter, nitrogen oxides, and non-methane hydrocarbons. Port Metro Vancouver works closely with trucking companies to improve efficiencies in the supply chain. As a result of the number of trucks that cross the U.S. border, it is important to also consider Canadian and international standards. Through the Northwest Ports Clean Air Strategy, Port Metro Vancouver is working with the ports of Seattle and Tacoma to address port-related contributions to air quality and climate change in the Georgia Basin Puget Sound air shed.
Coal	Concerns about coal dust	The proposed Roberts Bank Terminal 2 Project is a container terminal and does not include any coal-related elements.

Topic	Consultation Input	Consideration of Input
Health Effects (Noise, light pollution)	Concerns about quality of life impact (noise, light pollution)	As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has been and continues to undertake studies to understand the existing, and potential changes to noise, lighting and visual conditions. As part of the environmental assessment for the proposed Project, the following **noise and vibration-related** studies have been undertaken: • A social survey to solicit input from residents in the study area; • Baseline noise monitoring and noise source assessments; and • Noise mapping and impact assessments. The following **light-related** studies have been undertaken as part of the environmental work for the proposed Project: • A description of existing lighting conditions; and • Modelling potential Project-related changes from light associated with port operations. The results of these studies will be further considered within the outdoor recreation and marine commercial use assessments. **Existing Programs – Noise:** Port Metro Vancouver is committed to reducing the noise effects of port operations on neighbouring communities wherever possible. To better understand the nature of these effects, Port Metro Vancouver has installed noise monitors on the South and North Shore of Burrard Inlet, and is finalising plans to install noise monitors in Delta in 2014 near Deltaport to: • Gain a better understanding of noise issues; • Measure volume and type; • Pinpoint sources of noise if possible; and • Identify potential operational changes to mitigate noise. Port Metro Vancouver is also pursuing an ongoing noise monitoring program and longer-term mitigation strategies, such as shore power, which reduce emissions and also noise from ship generators. **Existing Programs – Light:** Port Metro Vancouver continues to work with the community to reduce lighting effects at terminals. As part of the Deltaport Third Berth project, Port Metro Vancouver committed to ensuring the following operational controls: • Lighting equipment is pointed north and west, where possible, to reduce effects to the nearest residents who are typically located east and south of the Roberts Bank port facility; • Implement shielding on construction lighting; • Use downlight-style, cut-off luminaries for illumination of wharf and container yard areas; • Use less intrusive lighting sources such as metal halide luminaries exclusively for illumination of new wharf and container yard areas; • Reduce the amount of lighting during periods of low activity using lighting control systems; and

Topic	Consultation Input	Consideration of Input
		• Incorporate an automatic light shutdown system when the booms of new ship-to-shore gantry cranes are raised and inactive for longer than 15 minutes.
Human Health Assessment	The following three comments were provided relating to human health effects: • A health impact assessment should be completed • Concerns about the effects of the project on human health • Concerns about the effects of the project on the human population	As part of the environmental assessment for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver will undertake a human health risk assessment (HHRA) that examines potential health effects related to exposure to specific contaminants of concern. The HHRA will focus on air quality, noise, and contamination of shellfish. The results of this study will be further considered within the Environmental Impact Statement, which Port Metro Vancouver will submit to the Canadian Environmental Assessment Agency as part of the environmental assessment process.

PORT-RELATED TRAFFIC AND TRANSPORTATION PLANNING

Port Metro Vancouver recognizes the importance of reducing the impacts of truck and train container traffic in local communities and is interested in hearing from stakeholders and the public on port-related truck traffic improvement strategies. Port Metro Vancouver has and will continue to work with Asia-Pacific Gateway stakeholders, including, but not limited to Transport Canada, British Columbia's Ministry of Transportation and Infrastructure, Translink and local governments, to raise awareness of concerns and seek opportunities to partner in strategies to address them. Past and ongoing examples of these types of partnerships include:

- Roberts Bank Railway Corridor (RBRC) program;
- South Fraser Perimeter Road;
- North Shore Trade Area; and
- South Shore Trade Area.

During the proposed Project's Pre-Design Consultation period (October – November 2013), comments were sought on Port Metro Vancouver's infrastructure, operational and technological improvements (pages 26 and 27 of the Pre-Design Consultation Discussion Guide). The following section provides consideration from Port Metro Vancouver regarding the feedback and suggestions provided during this consultation. Several comments address transportation planning considerations that lie beyond the jurisdiction of Port Metro Vancouver and the proposed Roberts Bank Terminal 2 Project and have been addressed in a separate section (pages 41-43).

Topic	Consultation Input	Consideration of Input
Transportation Assessment	An assessment of the increase in truck traffic to warehouses and transload facilities should be completed as part of the project	As part of the environmental assessment process, Port Metro Vancouver will assess the effects from within the Project boundaries of road and rail traffic on the natural environment, such as air quality and noise, and where required, will develop mitigation strategies to address potential effects. Port Metro Vancouver is working to improve efficiencies through infrastructure development as well as implementing new technologies focused on real-time information exchange to improve operational efficiencies and information exchange with partners in the supply chain. These initiatives include, but are not limited to: • **Smart Fleet Trucking Strategy:** Port Metro Vancouver has implemented a Smart Fleet Trucking Strategy that includes the installation of global positioning system (GPS) units in trucks calling at the port. As part of the Joint Action Plan announced by Port Metro Vancouver, the Government of Canada and the Province of British Columbia, all trucks accessing the port will be outfitted with GPS by July 2014. The GPS data will provide information to improve truck routing and terminal operations, and will help to improve trucking efficiencies while also reducing greenhouse emissions. • **Common Data Interface**: Port Metro Vancouver is exploring technologies, such as the Common Data Interface (CDI), that could help alleviate port-related truck traffic. CDI proposes a shared system and real-time information exchange between supply chain partners. This would improve coordination of trucking and terminal operations and would reduce the number of truck trips required per container across each berth as a result of reservation and trip planning tools. • **Extending hours of operation:** Port Metro Vancouver is exploring a pilot project that extends terminal operation hours to include regular evening and weekend hours. Effective July 1st, 2014 Vanterm, Centerm and Deltaport Terminals introduced night gate operations five nights a week, operating from 16:30 – 01:00. • **Deltaport Terminal, Road and Rail Improvement Project (DTRRIP):** The Deltaport Terminal, Road and Rail Improvement Project (DTRRIP), scheduled for completion in 2016/17, will improve causeway traffic

Topic	Consultation Input	Consideration of Input
		conditions as a result of a grade separation between road and rail traffic, allowing for continuous movement of both trucks and trains.
Transportation logistics	Containers should be moved by rail, not trucks	Truck container transportation provides the most efficient land-base mode of container transportation over short distances and is used to move containers throughout the Lower Mainland. Trucks are used for transportation of empty containers, as well as for imported containers going for transloading, and export containers loaded in the lower Mainland. Approximately 2,000 trucks are approved through Port Metro Vancouver's Truck Licensing System (TLS) and are permitted to access and service the marine terminals in the Vancouver Gateway.[2] **Imported Goods Movement:** More than two-thirds of containers with imported goods are loaded onto trains and leave the port terminals directly. The remaining approximate one third of containers are transported by truck to transload facilities in the Lower Mainland where goods are unloaded, sorted and reloaded for further transportation. Approximately 5 per cent of these goods are destined for consumption in the Metro Vancouver area; the remaining goods are either combined and sent to multiple destinations or loaded into larger containers for cost-efficient, long distance rail transportation. **Export Goods Movement:** About two-thirds Canadian export goods that leave from Vancouver in containers are transported to the gateway by train in specialty railcars (e.g. grain cars, lumber cars or box cars). Once the export railcars arrive in the Lower Mainland, the goods are unloaded at export stuffing facilities and put into marine containers. These containers are trucked to the marine terminal and are loaded onto container ships destined for markets overseas. The remainder of export containers are loaded inland and arrive by rail directly at the marine terminals. Port Metro Vancouver is working with supply chain partners to improve efficiencies at terminals by way of the following initiatives, as described on page 16: • Smart Fleet Trucking Strategy; • Common Data Interface; • Extending hours of operation; and • Deltaport Terminal, Road and Rail Improvement Project (DTRRIP).
Operational Improvements / Efficiencies	Resolve the current inefficiencies at Deltaport before expanding with a new terminal	Port Metro Vancouver is working to improve efficiencies through infrastructure development as well as implementing new technologies to improve operational efficiencies and information exchange with partners in the supply chain. These initiatives, as described on page 16, include, but are not limited to: • Smart Fleet Trucking Strategy; • Common Data Interface; • Extending hours of operation; and • Deltaport Terminal, Road and Rail Improvement Project (DTRRIP).

[2] The 2,000 trucks permitted through the Truck Licensing System represent about 10% of the fleet of large articulated transport trucks operating in the Lower Mainland.

Topic	Consultation Input	Consideration of Input
Transportation safety	Concerns about enforcing trucking regulations and safety	Port Metro Vancouver is committed to the safe and efficient movement of goods and passengers through the port terminals. Port Metro Vancouver works with British Columbia's Ministry of Transportation and Infrastructure Commercial Vehicle Safety and Enforcement (CVSE). CVSE is responsible for compliance with safety regulations within the commercial transport sector. CVSE officers conduct more than 30,000 vehicle inspections each year, issuing violation tickets and removing unsafe vehicles from the provincial roadways on a daily basis. For information on CVSE visit the website: http://www.th.gov.bc.ca/CVSE/.
Transportation safety	Suggest implementing a warning system of road/rail traffic conditions	The Roberts Bank Rail Corridor Program – a series of nine road and rail projects – will help to reduce the impacts of trains through local communities. This Program includes a Rail Crossing Information System (RCIS) which will notify drivers traveling on nearby routes of an incoming train, and enable them to re-route to overpasses when trains are expected. The RCIS consists of up to nine signs at key locations in the cities of Langley and Surrey and the Township of Langley. It is anticipated that the RCIS will be completed by early 2015. For information on the RCIS visit the website: http://www.robertsbankrailcorridor.ca/rcis
Truck-related noise	Install sound-deadening berms to control noise from commercial traffic	Port Metro Vancouver is committed to reducing the noise effects of port operations on neighbouring communities wherever possible. To better understand the nature of these effects, Port Metro Vancouver has installed noise monitors on the South and North Shore of Burrard Inlet, and is finalizing plans to install noise monitors in Delta in 2014 near Deltaport to: • Gain a better understanding of noise issues; • Measure volume and type; • Pinpoint sources of noise if possible; and • Identify potential operational changes.
Transportation Planning	Undertake additional grade separation projects at several at-grade/rail crossings (those not included in the Roberts Bank Rail Corridor Program)	In 2007, the "Roberts Bank Rail Corridor: Road / Rail Interface Study" was undertaken to identify and evaluate strategic locations for grade separations of road and rail to relieve communities affected by rail transport, enhance rail operations, and help facilitate potential expansion of marine terminals at Roberts Bank. The findings of this report have been used for the design and development of several infrastructure projects, including the Roberts Bank Rail Corridor (RBRC) project and the South Fraser Perimeter Road (SFPR), to address issues of congestion, noise, rail capacity as well as enhance trade between Canada and Asia-Pacific economies. To review the study visit the website: http://www.portmetrovancouver.com/docs/default-source/projects-gateway-infrastructure-program/RBRC_Study_final_report.pdf?sfvrsn=0 Additionally, Port Metro Vancouver is working to improve transportation-related efficiencies through infrastructure development as well as by implementing new technologies to improve operational efficiencies and information exchange with partners in the supply chain. A detailed description of current operational and technology initiatives is available on page 16. In addition to infrastructure development related to the Asia-Pacific Gateway, municipalities are regularly updating their transportation and land use plans to address community growth. Contact your local municipality for information about transportation and land use plans.

Topic	Consultation Input	Consideration of Input
Road Improvement and Maintenance	Port Metro Vancouver should be responsible for maintaining existing road infrastructure used by container trucks	Port Metro Vancouver has contributed to a number of infrastructure investments in the Lower Mainland between 2008 and 2013. Specific to transportation near Roberts Bank, Port Metro Vancouver contributed towards the Roberts Bank Rail Corridor (RBRC) projects developed to help mitigate the effects of increased rail on surrounding communities. The total cost of RBRC was $360 million, cost shared between several partners including Transport Canada, the provincial government, Translink, Port Metro Vancouver, B.C. Railway Corporation, BNSF, Canadian Pacific (CP), Canadian National (CN), the City of Langley, Corporation of Delta, City of Surrey and Township of Langley. Port Metro Vancouver and its industry partners contributed $50 million towards the RBRC projects. In the case of the Deltaport Third Berth Project, Port Metro Vancouver implemented improvements to Highway 17 to help mitigate the additional truck trips generated by the project, including: • Improvements to the Highway 17 northbound off-ramp that leads onto Highway 99 southbound; • Extension of the northbound high occupancy vehicle (HOV) lane on Highway 17 south of Ladner Trunk Road; and • Signal modifications at the intersection of Highway 17 and Ladner Trunk Road, and road capacity improvements to the left turning lanes from Ladner Trunk Road eastbound onto Highway 17 northbound. Economic activities of Port Metro Vancouver are a significant generator of tax revenue that can be used towards infrastructure maintenance. For example, the 2012 "Economic Impact Study", undertaken by Inter*VISTAS*, indicates that on-going activity related to Port Metro Vancouver contributes approximately $1.3 billion per year in tax revenues to all levels of government: • Federal: $756 million; • Provincial: $403 million; and • Municipal: $116 million. Once operations are at full capacity, the annual tax revenue contribution to all levels of government that will result from the proposed Project include approximately: • Federal: $120 million; • Provincial: $60 million; and • Municipal: $30 million.
Traffic	The following three comments were provided relating to traffic: • Concerns about traffic congestion • Concerns about increased road and rail traffic • Ban trucks during rush hour	Port Metro Vancouver is working to improve efficiencies through infrastructure development as well as by implementing new technologies to improve operational efficiencies and information exchange with partners in the supply chain. These initiatives include, but are not limited to: **Infrastructure:** • **Roberts Bank Rail Corridor (RBRC) Program:** Roberts Bank Rail Corridor Program is one of several road/rail grade separation projects under the Federal government's Asia-Pacific Gateway and Corridor Initiative, developed to enhance rail operations and accommodate anticipated growth in rail and road

Topic	Consultation Input	Consideration of Input
		traffic. This Program includes a Rail Crossing Information System (RCIS) which will notify drivers traveling on nearby routes of an incoming train, and enable them to re-route to overpasses when trains are expected. • **South Fraser Perimeter Road (SFPR):** As part of the province's Pacific Gateway Transportation Strategy, a four-lane highway, about 37 kilometres long, was built along the south side of the Fraser River. The SFPR has 15 overpasses and three interchanges. This new route separates commercial traffic from residential areas, improving community safety and reducing noise and congestion. The SFPR opened in 2013. • **Deltaport Terminal, Road and Rail Improvement Project (DTRRIP):** The Deltaport Terminal, Road and Rail Improvement Project (DTRRIP), scheduled for completion in 2016/17, will improve causeway traffic conditions as a result of a grade separation between road and rail traffic, allowing for continuous movement of trucks and trains. • **George Massey Tunnel Replacement Project (GMT):** Announced in September 2013, the B.C. Ministry of Transportation and Infrastructure (MoTI) is developing a replacement of the existing George Massey Tunnel. The GMT Project is in response to concerns about the impact of congestion at this crossing and in consideration of the remaining useful life of the infrastructure before major components will need to be replaced. Engineering and technical work are underway and will be presented to the public for stakeholder discussion next spring (2015). Construction is scheduled to begin in 2017. **Technology and Operations,** as described on page 16, include: • Smart Fleet Trucking Strategy; • Common Data Interface; and • Extending hours of operation.
Port Metro Vancouver Improvements	The following comments were received • Support for Port Metro Vancouver's operational improvement suggestion • Support for Port Metro Vancouver's technological improvement suggestions • Support for Port Metro Vancouver's infrastructure improvement suggestions • Support for Port Metro Vancouver's port-related truck traffic improvement suggestions	Port Metro Vancouver continuously works with partners in the supply chain to improve operational efficiencies. For more information about ongoing initiatives please visit the website: http://www.portmetrovancouver.com/en/portusers/SupplyChainInitiatives.aspx

Topic	Consultation Input	Consideration of Input
	• Support for Port Metro Vancouver's infrastructure improvement suggestions • More information required before answering question • Opposed to operational improvement suggestions	

HABITAT ENHANCEMENT PROGRAM

Port Metro Vancouver's Habitat Enhancement Program[3] focuses on creating and improving fish and wildlife habitat in advance of port development projects, to ensure that potential effects from Port Metro Vancouver, port tenants and lease holders, or third party projects, to existing habitat can be offset. Port Metro Vancouver consults with regulators, Aboriginal groups and adjacent communities, as appropriate, regarding habitat enhancement projects.

Fisheries and Oceans Canada (DFO) is the primary regulator overseeing offsetting programs (which include habitat enhancement) through the new *Fisheries Act* and Fisheries Productivity Investment Policy (FPIP), which came into effect in November 2013. The new FPIP provides an overview for applying offsetting measures for fisheries protection. The objective of offsetting is to counterbalance unavoidable harm to fish and the loss of fisheries productivity resulting from a project. Port Metro Vancouver has also engaged with Environment Canada with respect to wildlife, including birds. For information on DFO, the *Fisheries Act* and FPIP visit the websites: http://www.dfo-mpo.gc.ca/index-eng.htm and http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/index-eng.html.

Port Metro Vancouver has been constructing and maintaining habitat since 1991. A working agreement between Port Metro Vancouver and DFO allows for Port Metro Vancouver to apply for withdrawal of habitat credits as offsetting for infrastructure. At the time of withdrawal, DFO will perform an assessment of the stability and value of the habitat, and will determine if it is suitable to offset for the proposed development project. The working agreement also requires ongoing monitoring to ensure the desired outcomes are attained. This approach is widely accepted around the world and has been implemented extensively across Canada resulting in positive outcomes for offsetting development-related effects.

Part of the environmental assessment and review process for the proposed Roberts Bank Terminal 2 Project will involve the identification and evaluation of potential effects associated with the construction and operations phases of the proposed Project. The development of offsetting (mitigation) measures will be designed to minimize potential negative effects, and where possible, enhance the positive effects of the proposed Project.

Port Metro Vancouver appreciates the suggestions and input provided throughout the Pre-Design Consultation Process. Several suggestions and feedback from public and stakeholders regarding habitat offsetting (mitigation) were provided and include:

- Support for the development of infrastructure projects that benefit fish, wildlife and/or birds;
- Suggestion to build a marine conservation area;
- Suggestion to build a bird and/or wildlife sanctuary; and
- Suggestion to create habitat for raptors at Roberts Bank.

At this time, Port Metro Vancouver is engaging on a number of habitat enhancement projects. Some of these projects may be included as part of the offsetting associated with the proposed Roberts Bank Terminal 2 Project. However, offsetting requirements will ultimately be determined by regulators through the environmental assessment process.

Information about Port Metro Vancouver's Habitat Enhancement Program and related stakeholder engagement is available at the website: www.porttalk.ca/habitatenhancement.

[3] Port Metro Vancouver's Habitat Enhancement Program (formerly Habitat Banking Program) includes habitat enhanced under Port Metro Vancouver and Fisheries and Oceans Canada (DFO) Working Agreement for Habitat Banking.

Topic	Consultation Input	Consideration of Input
Habitat Enhancement	Need to work collaboratively with local authorities, environmental organizations and stakeholders	Port Metro Vancouver consults with regulators, Aboriginal groups and adjacent communities, as appropriate, regarding habitat enhancement projects. Environmental organizations are invited to participate in the public engagement process.
Habitat Enhancement	Questions regarding the science behind habitat mitigation	Fisheries and Oceans Canada (DFO) is the primary regulator overseeing fisheries offsetting programs (which include habitat enhancement) through the *Fisheries Act* and Fisheries Productivity Investment Policy (FPIP). Port Metro Vancouver has also engaged with Environment Canada to address aspects of the Habitat Enhancement Program, such as disposal at sea of dredgate, the science and technology of habitat enhancement, as well as about other wildlife, such as birds. As outlined by DFO, the objective of offsetting is to counterbalance unavoidable harm to fish and the loss of fisheries productivity resulting from a project. The following four principles to guide offsetting measures: • Principle 1: Offsetting measures must support fisheries management objectives or local restoration priorities. • Principle 2: Benefits from offsetting measures must balance project impacts. • Principle 3: Offsetting measures must provide additional benefits to the fishery. • Principle 4: Offsetting measures must generate self-sustaining benefits over the long term. Information about DFO's approaches to offsetting is available online: http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/index-eng.html#_ftn3
Habitat Enhancement	Concern with Port Metro Vancouver's previous mitigation efforts	The Salt Marsh Restoration at Boundary Bay involved removal of logs and woody debris to restore once thriving salt marsh vegetation. This was done because heavy accumulations of woody debris can impact the intertidal marshes, smothering marsh vegetation and compacting marsh soils. The removal of this material encourages rapid recovery of the salt marsh, through the natural re-growth of native vegetation and restoration of fish habitat. The project was approved by Fisheries and Oceans Canada and the B.C. Ministry of Forests, Lands and Natural Resource Operations. Boundary Bay Salt Marsh Restoration works were complete on September 30, 2013. Environmental monitoring is underway and reports are posted on PortTalk (http://porttalk.ca/article/salt-marsh-restoration-at-roberts-bank-and-boundary-bay) as they are finalised. The monitoring team has observed early signs of the salt marsh re-vegetating in areas where log removal was undertaken. Bird monitoring surveys were conducted in October to December of 2013, and the report is available online: http://porttalk.ca/article/salt-marsh-restoration-at-roberts-bank-and-boundary-bay.
Habitat Enhancement	Concerns with Port Metro Vancouver's Habitat Banking Program projects	The Habitat Enhancement Program is a Port Metro Vancouver initiative focused on creating, restoring and enhancing fish and wildlife habitat. The Program consists of projects around the Lower Mainland, through which Port Metro Vancouver ensures the viability and sustainability of new and enhanced habitat. The Program is a proactive measure intended to provide a balance between a healthy environment and future development projects that may be required for port operations. Port Metro Vancouver has been enhancing habitat since 1991.

		Port Metro Vancouver consults with regulators, Aboriginal groups and adjacent communities, as appropriate, regarding habitat enhancement projects. The Habitat Enhancement Program is regulated by Fisheries and Oceans Canada (DFO) and other regulatory agencies.
Habitat Enhancement	Concerns about ongoing costs, governance and responsibility for maintaining habitat sites	Port Metro Vancouver is a non-shareholder, financially self-sufficient corporation, established by the Government of Canada in January 2008, pursuant to the *Canada Marine Act*, and accountable to the Federal Minister of Transport. Port Metro Vancouver is responsible for all costs associated with the Habitat Enhancement Program. There is no government funding or tax money used to establish, maintain or monitor habitat enhancement sites.
Habitat Enhancement	Habitat mitigation is a public relations exercise for Port Metro Vancouver	Port Metro Vancouver's mandate includes ensuring a high level of environmental protection. Port Metro Vancouver was the first North American port to employ a dedicated team of specialists to address issues concerning the environment. Port Metro Vancouver shares this responsibility with Transport Canada, Environment Canada, Fisheries and Oceans Canada (DFO), Metro Vancouver, and with the support of other local organisations. Offsetting impacts to fish habitat from development projects is a requirement under the *Fisheries Act*. Port Metro Vancouver is accountable over the long term for its habitat projects through regular monitoring and reporting. In cases where habitat enhancement projects are not functioning as intended, the regulators can require Port Metro Vancouver to perform remedial work.
Mitigation Efforts	Port Metro Vancouver should bridge the causeway or create culverts to allow natural tidal flow	An independent technical study, "Potential Effects of Opening the Causeway," was undertaken for the Vancouver Port Authority in 2005 to clarify issues related to physical processes and hydraulic behaviour in the causeway area of Roberts Bank. This report determined that there is a substantial risk that a new opening in the causeway could initiate a new sequence of morphological changes on the tidal flats, which could affect the existing habitat conditions. The report is available online: http://www.robertsbankterminal2.com/wp-content/uploads/RBT2-Potential-Effects-of-Opening-the-Causeway-June-2005-NHC-Memo-January-2014.pdf
Mitigation	Against fish hatcheries	Offsetting requirements will ultimately be determined by regulators through the environmental assessment process. Fisheries and Oceans Canada (DFO) may allow "biological manipulations" which could include fish hatcheries, as an option for offsetting, should it benefit fisheries productivity. Port Metro Vancouver has not determined at this time if it would propose a fish hatchery as offsetting for the proposed Roberts Bank Terminal 2 project.
Mitigation	Against farmed fish	Fish farming is not considered to be an offsetting option by Fisheries and Oceans Canada and will not be used as part of any habitat enhancement program associated with the proposed Roberts Bank Terminal 2 Project.

Environmental Assessment

On September 12, 2013, Port Metro Vancouver filed a Project Description with the Canadian Environmental Assessment Agency and the British Columbia Environmental Assessment Office. A Project Description assists regulatory agencies in determining whether an environmental assessment is required for the project, and if so, it provides the information required to determine the scope and nature of the assessment.

On January 7, 2014, the Minister of the Environment and Minister responsible for the Canadian Environmental Assessment Agency, announced the referral of the proposed Roberts Bank Terminal 2 Project for an environmental assessment by an independent review panel. For information about the review panel process for the Roberts Bank Terminal 2 Project, please visit http://www.ceaa-acee.gc.ca/050/details-eng.cfm?evaluation=80054.

Topic	Consultation Input	Consideration of Input
Environmental Assessment Process	Concerns regarding the independence and nature of the environmental assessment	On January 7, 2014, the Minister of the Environment and Minister responsible for the Canadian Environmental Assessment Agency, announced the referral of the proposed Roberts Bank Terminal 2 Project for an environmental assessment by an independent review panel. A review panel is composed of experts with knowledge and expertise selected to assess a designated project that may cause significant adverse environmental effects. Review panels are required to hold public hearings that allow interested parties that are directly affected or that have relevant information or expertise the opportunity to participate. The panel must also consider written comments from the public and provide a summary of any comments received in its report. The review panel submits its report to the Minister of the Environment. For more information about the review panel process for the proposed Roberts Bank Terminal 2 Project visit the website: http://www.ceaa-acee.gc.ca/050/details-eng.cfm?evaluation=80054.
Geographic Boundaries	Concerns about the geographic boundaries of the effects assessment	The Environmental Impact Statement for the proposed Roberts Bank Terminal 2 Project will indicate the spatial boundaries used in assessing the potential environmental effects of the proposed Project and will provide the rationale for each boundary. Spatial boundaries will be defined taking into account, as applicable, the appropriate scale and spatial extent of potential indirect and direct Project-related effects, community and Aboriginal traditional knowledge, current land use and resource use by Aboriginal groups, as well as ecological, technical, and social and cultural considerations. Port Metro Vancouver continues to consult with federal and provincial governments and agencies, local government and Aboriginal groups, and will take into account public comments related to the definition of spatial boundaries used in the effects assessment.

COMMUNITY LEGACY BENEFITS

During the Pre-Design Consultation process, the public was asked to provide suggestions and feedback regarding community legacy benefits. Thank you for your participation and responses regarding potential legacy benefits. Input received will continue to help inform discussions regarding community legacy benefits that could be provided as part of the proposed Roberts Bank Terminal 2 project to ensure that local communities benefit from Port development.

Suggestions and feedback regarding legacy benefits included the following:

- Agreement with providing support to community resources;
- Support for Port Metro Vancouver's community legacy benefit suggestions related to the environment;
- Provide funding to groups dedicated to protecting or supporting fish, wildlife and/or birds;
- Port Metro Vancouver should contribute funding to health services or health research;
- Support for Port Metro Vancouver's community legacy benefit suggestions related to community well-being and recreation;
- Contribute funding to public recreational amenities at Roberts Bank (viewing areas, parking, extension of dikes, public access);
- Suggest building a boat launch;
- Support for Port Metro Vancouver's community legacy benefit suggestions related to transportation;
- Contribute funding to a car-share program in South Delta;
- Contribute to cycling infrastructure including bike lanes;
- Contribute to traffic flow infrastructure (roundabouts, traffic signal spacing/timing/programming); and
- Contribute financially to replacing the George Massey Tunnel.

Topic	Consultation Input	Consideration of Input
Community Legacy Benefits	Skepticism about legacy benefits and the associated perception of bribery	Port Metro Vancouver explores opportunities within the projects it implements to provide lasting economic and social benefits to the communities in which the infrastructure stands. Previous examples of projects and the accompanying community benefits include: • **Deltaport Third Berth Project:** A contribution to the Corporation of Delta as part of the Deltaport Third Berth Project Community Amenity Fund. The fund was used by the Corporation of Delta for the acquisition of the Seven Seas Fishing Company site in Ladner, helping secure land to revitalise the Ladner Waterfront for public access. • **Lynn Creek Brooksbank Project:** As part of the project improvements, Port Metro Vancouver upgraded nearby Harbourview Park to preserve and enhance its historical, recreational and natural resources, including a new lookout with seating area, revamped parking lot, restoration of native trees and shrubs and building a pedestrian underpass. • **Low Level Road Project:** In recognition of the importance of the Spirit Trail to the City of North Vancouver and its residents, the Low Level Road Project includes provisions for the design and implementation of several key sections of the Spirit Trail. The project will accelerate the City's implementation schedule for the Spirit Trail between St. Georges Avenue and Kennard Avenue.

GENERAL INQUIRIES

Topic	Consultation Input	Consideration of Input
Statement of Support	Support for the proposed Roberts Bank Terminal 2 Project	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project. There will be additional opportunities for public input that will be provided through the environmental assessment process. For information on these opportunities, visit the Canadian Environmental Assessment Agency website: www.ceaa-acee.gc.ca
Statement of Opposition	Against the proposed Roberts Bank Terminal 2 Project	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project. There will be additional opportunities for public input that will be provided through the environmental assessment process. For information on these opportunities, visit the Canadian Environmental Assessment Agency website: www.ceaa-acee.gc.ca
Information Disclosure and Consultation	Positive comments regarding the consultation process	All input Port Metro Vancouver receives during consultation is considered along with technical and financial information in developing project designs or plans, including engineering and environmental mitigation plans. As part of the Environmental Impact Statement required in the environmental assessment process, Port Metro Vancouver will demonstrate how comments and concerns raised by the public have been addressed throughout the Project development.

KEY THEME SUMMARY FROM 6 SMALL GROUP MEETINGS

The following section responds to the key themes raised during small group meetings (pages 10-13 in the Pre-Design Consultation Summary Report).

Topic	Consultation Input	Consideration of Input
General	Inquiry for more information regarding Port Metro Vancouver's mandate and responsibilities to the Canadian public	Port Metro Vancouver is a port authority created pursuant to the *Canada Marine Act.* The purpose of the *Canada Marine Act* is to, among other things: promote the success of Canadian ports to contribute to the competitiveness, growth and prosperity of the Canadian economy; ensure that marine transportation services satisfy the needs of users at a reasonable cost; provide for a high level of safety and environmental protection; and manage marine infrastructure in a commercial manner, taking into account input from users and the community. Port authorities are accountable to the federal Minister of Transport. Port Metro Vancouver is responsible for managing federal property and related port activities in Burrard Inlet, the lower Fraser River and at Roberts Bank, all located in the Metro Vancouver area of British Columbia. Port Metro Vancouver manages more than 16,000 hectares of water, nearly 1,000 hectares of land, and assets along 640 kilometres of shoreline. Port Metro Vancouver is governed by a diverse board of directors appointed by government and industry, able to make independent and timely decisions on business plans and capital spending, focused on the operational needs of port users and guided by a vision for long-term growth and competitiveness. Port Metro Vancouver's mission is t*o lead the growth of Canada's Pacific Gateway in a manner that enhances the well-being of Canadians and inspires national pride.* Canada's Asia-Pacific Gateway is an integrated network of airports, seaports, railways, roads and border crossings connecting Canada with major trading partners. The Gateway provides a means for Canadian farmers, mill workers, fishers, manufacturers and mining companies to export their goods to other markets, and a means or Canadians to access global goods on local store shelves. Port Metro Vancouver is Canada's largest Port, facilitating close to 20 per cent of Canada's entire trade in goods, and a major economic force that strengthens the Canadian economy. Vancouver's strategic location and infrastructure enables Port Metro Vancouver to play a vital role in Canada's trade.
Project Rationale	The following comments were received regarding project rationale • Skepticism regarding the validity of Port Metro Vancouver's container traffic forecast, and request for more information	Port Metro Vancouver has committed to regular container traffic forecast updates as part of the Container Capacity Improvement Program (CCIP). By obtaining forecasts from multiple independent sources, Port Metro Vancouver can form a reliable and robust view of future container volumes. Port Metro Vancouver will continue to update its container forecasts as part of the planning and review process for the proposed Roberts Bank Terminal 2 Project. The details of the independent party forecasts are described on page 4. Forecast reports are available on the Project website: www.portmetrovancouver.com/RBT2, including Port Metro Vancouver Container Forecasts (Ocean Shipping Consultants – Final Update July 2013)

Topic	Consultation Input	Consideration of Input
	regarding container traffic and forecast data • Skepticism regarding the rationale and business case for the proposed Roberts Bank Terminal 2 Project • Expression of concern that alternatives to the Roberts Bank Terminal 2 Project have not been adequately considered	http://www.robertsbankterminal2.com/wp-content/uploads/Port-Metro-Vancouver-Container-Traffic-Forecast-Ocean-Shipping-Consultants-July-20131.pdf
Project Alternatives Port Metro Vancouver Jurisdiction including Surrey Fraser Docks Port of Prince Rupert	The following comments were received regarding alternative means • Inquiry into Fraser Surrey Docks (as alternative to Roberts Bank Terminal 2 Project), particularly in light of announcement to replace George Massey Tunnel with a bridge • Questioning if the removal of George Massey Tunnel would allow Fraser Surrey Docks to address additional container capacity requirements in the future • Expression of concern that alternatives to the Roberts Bank Terminal 2 Project have not been adequately considered, including Fraser Surrey Docks and the Port of Prince Rupert • Suggestions that Port Metro Vancouver pursue other options for increasing container capacity on the Canadian West Coast,	Port Metro Vancouver's land use objectives include optimising the use of existing port lands and waters and working with customers, stakeholders, local governments and agencies to develop strategies and identify opportunities to optimise supply chain movements within and beyond the Metro Vancouver region. Several options that have been explored for increasing container capacity within Port Metro Vancouver's jurisdiction are described on pages 4-5, including: • Fraser Surrey Docks; • The Inner Harbour terminals; • Deltaport; and • Lynnterm. Port Metro Vancouver and the Port of Prince Rupert are separate organisations however both ports are critical elements of the Pacific Gateway that connects Canada with Asian trading economies. Additional container capacity on the Canadian west coast was added in 2007 when the Port Authority of Prince Rupert converted its Fairview terminal from a break bulk terminal to a container terminal with a design capacity of approximately 750,000 TEUs. Planned expansions of the Fairview terminal are expected to increase its capacity to 2 million TEUs within the next 10 to 15 years. In the long term, additional capacity from both Prince Rupert and Port Metro Vancouver is needed to meet demand for containerised trade on the west coast of Canada. Additional consideration for alternatives to container capacity growth outside Port Metro Vancouver's jurisdiction are described on pages 5 - 6.

Topic	Consultation Input	Consideration of Input
	including expansion in Prince Rupert and efficiency improvements at existing container terminals within Port Metro Vancouver's jurisdiction • Statement that additional port expansion to meet forecasted growth should be pursued in Prince Rupert, and not at Roberts Bank • Questions related to the relationship between the Port of Prince Rupert and Port Metro Vancouver as it relates to providing additional container capacity	
Capacity / Economics	Inquiry for more information regarding the consequences of not building the Roberts Bank Terminal 2 Project if the container traffic forecasts are accurate and the additional capacity is required	Roberts Bank is an established trade corridor and is well positioned to accommodate future growth in trade activity. Roberts Bank has several competitive advantages, including its proximity to major transportation corridors for both road and rail movements and efficient ship-to-rail design. A report has been undertaken to review the alternatives to marine terminal expansion and the results of this study will be further considered within the Environmental Impact Statement.
Project Economics	Question related to the cost of expansion versus optimization of existing facilities within the current footprint	Port Metro Vancouver's land use objectives include optimising the use of existing port lands and waters and working with customers, stakeholders, local governments and agencies to develop strategies and identify opportunities to optimise supply chain movements within and beyond the Metro Vancouver region. Several options that have been explored for increasing container capacity within Port Metro Vancouver's jurisdiction are described on pages 4-5, including: • Fraser Surrey Docks; • The Inner Harbour terminals; • Deltaport; and • Lynnterm. In the long term, Port Metro Vancouver will need all additional capacity to ensure that demand can be met for containerised trade on the west coast of Canada.

Topic	Consultation Input	Consideration of Input
Project Economics	Questions related to the economic benefits of port-related activities in the Lower Mainland, particularly the tax revenue generated by port business	Trade stimulates local, regional, and national economies, increases tax revenue for local municipalities and higher levels of government in B.C., and increases the number of jobs for British Columbians and Canadians. Port Metro Vancouver is Canada's largest and North America's most diversified port, trading $172 billion in goods with more than 160 trading economies annually. Port Metro Vancouver's ongoing operations create 98,800 jobs across Canada. A total of 76,800 jobs are created across British Columbia, of which 35,100 are direct employment opportunities located in Metro Vancouver. These direct employment opportunities lead to $4.6 billion in wages in Metro Vancouver alone. Port Metro Vancouver generates a total economic output of $14.5 billion in British Columbia, which includes the value-added gross domestic product (GDP) component of $6.7 billion. This economic activity is a significant generator of tax revenue, including municipal property taxes, which all terminal facilities within Port Metro Vancouver pay. Port Metro Vancouver contributed approximately $1,270 million annually in tax revenue to all levels of government, including: • Federal tax revenue of more than $754 million; • Provincial tax revenue of approximately $336 in British Columbia, and approximately $64 million in other provinces across Canada; and • Government revenue in port municipalities of approximately $116 million, mostly in property-related taxes. For example, Westshore and Deltaport are collectively Delta's largest taxpayers, and contributed more than $4.5 million in 2012 tax revenue. In addition to employment and taxes, Port Metro Vancouver invests in the planning, development, and delivery of other initiatives and infrastructure that improve the flow of goods through the Pacific Gateway and address the needs of surrounding communities. The economic information listed above is based on the 2012 Port Metro Vancouver Economic Impact Study. To review this report, visit http://portmetrovancouver.com/docs/default-source/about-facts-stats/2012-port-metro-vancouver-economic-impact-study.pdf?sfvrsn=0 The proposed Roberts Bank Terminal 2 Project is expected to provide significant economic benefits to the Metro Vancouver region, British Columbia, and Canada. The proposed Project would generate the following employment benefits during the construction period, anticipated to be approximately six years: • Direct construction employment: Estimated 2,500 jobs each year, worth a total of approximately $690 million in wages; • Indirect and induced employment: Estimated 2,000 jobs each year, worth a total of approximately $450 million in wages;

Topic	Consultation Input	Consideration of Input
		• Total direct, indirect and induced employment: Estimated 4,500 jobs each year, worth a total of approximately $1.1 billion in wages; • Gross domestic product: Approximately $1.63 billion to the Canadian economy; and • Total economic output: Approximately $4.1 billion. This study also indicated that once operating at capacity, the proposed Project would provide the following benefits: • Direct employment: Estimated 9,200 jobs, worth approximately $440 million in wages annually; • Indirect and induced employment: Estimated 9,000 jobs, worth approximately $180 million in wages annually; • Total direct, indirect and induced employment: 18,200 jobs, worth approximately $620 million in wages annually; • Gross domestic product: Approximately $1.66 billion to the Canadian Economy annually; and • Total economic output: Approximately $3.1 billion annually.
Project Economics	Concern that other economic factors might render the proposed Roberts Bank Terminal 2 Project unnecessary	Port Metro Vancouver will continue to monitor global economic trends, as well as developments in the transportation industry as the project proceeds through the environmental assessment process. Port Metro Vancouver has developed early warning indicators to aid in the early identification of trends that could have a negative effect on foreign trade and future container traffic demand. Port Metro Vancouver has committed to regular, independent and impartial traffic forecast updates as part of the Container Capacity Improvement Program (CCIP). By obtaining forecasts from multiple experienced and impartial sources, PMV can form a more reliable and robust view of future container volumes. The details of recent independent party forecasts have been described on page 4.
Governance	As a customer of the railways, Port Metro Vancouver should be able to do more to regulate or influence the railways' operational and environmental practices	Transport Canada regulates the operational, environmental and safety practices of the railways in accordance with the *Railway Safety Act*. Information about Transport Canada and the *Railway Safety Act* is available at the website: https://www.tc.gc.ca/. As a partner in a supply chain made up of a highly integrated network of suppliers, shippers, intermediaries, and service providers, Port Metro Vancouver does not regulate the railways. Each supply chain participant makes independent decisions that reflect the dynamic business environment in which they operate.
Engineering / Dredging	Suggestion that Port Metro Vancouver consider potential synergies between the need for sand and material (as part of the construction of the terminal and various habitat improvements with the need to dredge navigation and local channels on the Fraser River	It is anticipated that the land for the proposed Roberts Bank Terminal 2 Project would be created primarily using a combination of fill material from dredging the future berth area and from the annual Fraser River maintenance dredging program, as described on page 7. Requirements for sand as part of any project within the Habitat Enhancement Program will be considered on a case-by-case basis. Port Metro Vancouver is assessing the suitability of dredged sediments from local channels to determine whether it is feasible to beneficially re-use the material for projects proposed under the Habitat Enhancement Program.

Topic	Consultation Input	Consideration of Input
Project Design	Questioning whether the proposed design of the project provided sufficient capacity for the anticipated volume of truck traffic travelling to and from the facility	Traffic studies undertaken during the conceptual engineering for the proposed Roberts Bank Terminal 2 Project have concluded that there is sufficient roadway capacity on Deltaport Way on the causeway to support the anticipated additional truck and employee vehicle traffic. The results of these studies indicate that Deltaport Way on the causeway requires no additional lanes. Roberts Bank Way North and South also do not require expansion. In relation to traffic entering at the proposed Roberts Bank Terminal 2 Project facility entry and exit, a new overpass structure will be required along the existing roadway at Roberts Bank Way North to cross the existing train tracks leading to Westshore Terminals. This proposed overpass will have a new three lane road leading to and from the proposed terminal.
Project Design and Waterfront Access	The following suggestions were received regarding project design and waterfront access: • Suggestion that Port Metro Vancouver consider providing waterfront access at Roberts Bank, including a public boat launch with viewing and washroom facilities • Suggestion that part of the design should consider the provision of facilities for water safety and rescue vessels, such as those used by the Lifeboat Society	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project. There will be additional opportunities for public input that will be provided through the independent environmental assessment process. Port Metro Vancouver will consider these suggestions through discussions and engagement processes.
Environmental Effects	Concern regarding potential effects on the Fraser River estuary, particularly with respect to bird and fish species in the area	As part of the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has been and continues to undertake technical studies in and around Roberts Bank to assess existing conditions and inform predictions on future conditions. This work will form the basis of the effects assessment conducted as part of the environmental assessment. Studies on birds and fish include, but are not limited to: • Shorebird use of Roberts Bank and the Fraser River Estuary; • Infrastructure effects on birds; • General bird abundance and distribution; • Waterfowl and shorebird abundance and habitat use; • Eelgrass fish community survey; and • Juvenile salmon abundance and distribution along the shoreline and offshore; Information about field studies, including how to sign up for monthly field studies notices, is available at the website: www.portmetrovancouver.com/RBT2.

Topic	Consultation Input	Consideration of Input
Cumulative Effects	The following comments were received regarding cumulative effects: • Request that the cumulative effects assessment should include all projects related to the Fraser River and Georgia Strait • Expression of concern about the environmental effects of both the proposed Roberts Bank Terminal 2 Project and other projects being undertaken as part of the Habitat Banking Program	The scope of the cumulative effects assessment is guided by the document "Guidelines for the Preparation of an Environmental Impact Statement for the Roberts Bank Terminal 2 Project", issued by the Canadian Environmental Assessment Agency and guidance provided in the document "Operational Policy Statement: Assessing Cumulative Environmental Effects Under the *Canadian Environmental Assessment Act, 2012*". The approach to addressing cumulative effects is described on page 9. Any projects undertaken as part of the Habitat Enhancement Program would require appropriate regulatory approval before proceeding. Fisheries and Oceans Canada (DFO) is the primary regulator overseeing habitat projects through the *Fisheries Act* and Policy for the Management of Fish Habitat. Port Metro Vancouver also engaged with Environment Canada regarding other wildlife.
Air Quality	Concern about air quality	Air quality studies are part of the ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project. The studies will focus on collecting information to develop an understanding of current conditions in the study area. Port Metro Vancouver's existing Air Action Program works to reduce emissions now to help maintain good air quality for the future. As described on page 11, key components of the Air Action Program include: • EcoAction Program; • ECA initiative; • Northwest Ports Clean Air Strategy; • Port Metro Vancouver Landside Air Emissions Inventory; and • Environmental requirements through the Truck Licensing System. Information about Port Metro Vancouver's Air Action Program is available online at the website: http://www.portmetrovancouver.com/en/environment/initiatives/Air.aspx Port Metro Vancouver also cooperates with Metro Vancouver and the Fraser Valley Regional District, which operate a network of air quality monitoring stations in the Lower Fraser Valley (LFV), as described on page 11. As part of the Deltaport Third Berth Project, Port Metro Vancouver funded the creation of the Tsawwassen Air Quality Monitoring Station, as described on page 11.
Air Quality	Comment related to the positive effects resulting from	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project.

Topic	Consultation Input	Consideration of Input
	Port Metro Vancouver's initiatives to reduce air quality effects	
Human Health Assessment	Inquiry about the inclusion of a health assessment as part of the environmental assessment	As part of the environmental assessment for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver will undertake a human health assessment. A description of the human health risk assessment is provided on page 15. The results of these studies will be further considered within the Environmental Impact Statement.
Safety	Concern regarding the movement of containers loaded with hazardous goods	Dangerous goods are substances to which regulations made under the *Canada Shipping Act* or the *Transportation of Dangerous Goods Act* apply. Transport Canada is responsible for regulating the transport of dangerous goods. Information about the movement of dangerous goods is available at the website: http://www.tc.gc.ca/eng/tdg/safety-menu.htm
Socio-Community	Concern related to the current noise effects from truck and train movements to and from existing port facilities and request to determine how these effects could be mitigated by Port Metro Vancouver	As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has been and continues to undertake field studies and modelling related to noise at Roberts Bank and the surrounding areas. These studies focus on collecting information on existing conditions to develop an understanding of future conditions and potential Project-related changes. A description of the noise-related studies is provided on page 14. Port Metro Vancouver is also pursuing a longer term mitigation strategies, such as shore power, which reduce emissions and also noise from ship generators.
Socio– Economic	Request for a thorough socio-economic analysis of the proposed Roberts Bank Terminal 2 Project that studies the social effects of the project, not just the economic effects.	As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has been and continues to undertake socio-economic assessments to understand the existing state of: • Social and community conditions; • Land and water use; • Outdoor recreation; • Marine commercial use; • Services and infrastructure; • Visual resources (including lighting); • Economic conditions; • Aboriginal current use of land and resources for traditional purposes; and • Physical and cultural heritage (including archaeology). In addition to jobs and taxes, Port Metro Vancouver invests in the planning, development, and delivery of other initiatives and infrastructure that improve the flow of goods through the Pacific Gateway and address the needs of surrounding communities.
Socio– Economic	Concern that the jobs and other economic benefits created during the	If constructed, the proposed Roberts Bank Terminal 2 Project would drive economic growth and increased employment, benefitting the region, the province and the country.

Topic	Consultation Input	Consideration of Input
	construction and operation of the project might go to workers and companies from outside British Columbia	If the proposed Roberts Bank Terminal 2 Project proceeds, Port Metro Vancouver will work with the contractor selected to explore economic opportunities locally, regionally, provincially and nationally.
Habitat Enhancement and Mitigation	Suggestion for Port Metro Vancouver to consult with local naturalists and environmental groups regarding habitat mitigation and enhancement efforts to determine local preferences regarding which habitat projects should be undertaken	Port Metro Vancouver consults with regulators, Aboriginal groups and adjacent communities, as appropriate, regarding habitat enhancement projects. Environmental organisations are invited to participate in the public engagement processes. Environmental organisations that have been involved with the Habitat Enhancement Program include the Pacific Salmon Foundation and Nature Trust of BC.
Transportation / Traffic	The following comments were provided related to truck and rail transportation • Request for information about the movement of containers in the Lower Mainland, particularly related to the split between truck and train traffic, and the additional trucking that would be required by the increased container volume from the proposed Roberts Bank Terminal 2 Project • Expression of preference that containers be transported by rail, as opposed to being transported by truck	Port Metro Vancouver is committed to maximising the efficiency of existing port operations. By working collaboratively with supply chain partners, including those in the rail and trucking industries, Port Metro Vancouver is continually improving overall performance. Port Metro Vancouver is working with supply chain partners to improve efficiencies at terminals by way of the following initiatives, as described on page 16: • Smart Fleet Trucking Strategy; • Common Data Interface; • Extending hours of operation; and • Deltaport Terminal, Road and Rail Improvement Project (DTRRIP). If the proposed Project proceeds, once operating at 2.4 million TEUs, the proposed Roberts Bank Terminal 2 would result in approximately 3,700 total daily truck movements (1,850 trips in and 1,850 trips out of the terminal), assuming a five-day work week with daily eight-hour shifts. Rail projections indicate between 8 and 10 container trains per day (four to five trains in, and four to five trains out), with 10 train movements only in peak periods. As part of the environmental assessment process, Port Metro Vancouver will assess the effects from within the Project boundaries of road and rail traffic on the natural environment, such as air quality and noise, and where required, will develop mitigation strategies to address potential effects.
Road and Rail Traffic	Questioning whether the road and rail network could handle the increased traffic anticipated as part of the Roberts Bank Terminal 2 Project	The existing road and rail infrastructure is designed to handle the increased traffic anticipated from the proposed Roberts Bank Terminal 2 Project. Additionally, Port Metro Vancouver is working to improve efficiencies through infrastructure development as well as implementing new technologies to improve operational efficiencies and information exchange with partners in the supply chain. These initiatives include, but are not limited to:

Topic	Consultation Input	Consideration of Input
		Infrastructure development initiatives, as described on pages 19-20, include: • Roberts Bank Rail Corridor (RBRC) Program; • South Fraser Perimeter Road (SFPR); • Deltaport Terminal, Road and Rail Improvement Project (DTRRIP); and • George Massey Tunnel Replacement Project. Technology and Operations initiatives, as described on page 16, include: • Smart Fleet Trucking Strategy; • Common Data Interface; and • Extending hours of operation.
Road and Rail Traffic	Concern related to the volume of container trains travelling through Langley. Request that the effects of this increased rail traffic be properly considered in the environmental assessment	The Roberts Bank Rail Corridor Program projects are being built, in part, to accommodate and mitigate increases in road and rail traffic from future port developments. The Program includes nine road-rail projects in Delta, Surrey, and the City and Township of Langley, including eight overpass projects and one railway siding project including the construction the 196th Street, 192nd Street and 54th Avenue Rail. The overpass projects are expected to be complete in 2014. For information about the Roberts Bank Rail Corridor Program visit the website at: http://www.robertsbankrailcorridor.ca. As part of the environmental assessment process, Port Metro Vancouver will assess the effects from within the Project boundaries of road and rail traffic on the natural environment, such as air quality and noise, and where required, will develop mitigation strategies, to address potential effects.
Road and Rail Traffic	Questioning related to why various transloading activities were required to take place in the Lower Mainland, as opposed to their place of origin.	Off-dock facilities offer a range of value-added services that enhance the efficiency of the supply chain. Transloading (unpacking marine containers and repacking goods into other marine containers or larger domestic containers), stuffing (loading empty containers for export), warehousing and empty container storage must be coordinated in one location to increase the efficiency of each process. The design of the proposed Roberts Bank Terminal 2 Project includes the construction of a container storage yard and a rail intermodal yard on the marine terminal, not in the upland environment. This proposed design will enhance operational efficiencies and eliminates any effect on agricultural land and productivity. During the Project Definition Consultation, the public was consulted on the location of the Intermodal Yard (Marine vs. Upland Construction). As outlined in the Project Definition Consultation Summary Report, the public was not in favour of constructing the intermodal yard in the upland area and supported the proposal to include the intermodal yard in the marine terminal itself.
Road and Rail Traffic	Positive comments regarding Port Metro Vancouver's continuing efforts to manage port-related truck traffic	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project. There will be additional opportunities for public input that will be provided through the independent environmental assessment process. For information on these opportunities visit the CEAA website at www.ceaa-acee.gc.ca.

Topic	Consultation Input	Consideration of Input
Short Sea Shipping	Questions about how short sea-shipping might be incorporated into the existing container supply chain in the Lower Mainland as well as into the operations of the proposed Roberts Bank Terminal 2 Project	Short sea shipping has been proposed by members of the community as a potential solution to mitigate truck traffic volumes. This practice would entail the transportation of containers by barge between deep-sea terminals and various container handling facilities within the Lower Mainland. The consideration of short sea shipping is described on page 6.
Habitat Enhancement and Mitigation	Port Metro Vancouver should consider opportunities to preserve and showcase the natural environment and wildlife at Roberts Bank	Port Metro Vancouver's mandate includes ensuring a high level of environmental protection. As part of the development of Deltaport Third Berth and in consultation with Fisheries and Oceans Canada, Port Metro Vancouver invested approximately $25 million to implement more than 150 commitments to protect the environment, including a construction Environmental Management Plan, a comprehensive Fish and Wildlife Habitat Compensation Plan, a Marine Mammal Monitoring Program and an Adaptive Management Strategy for the intercauseway area. For information about Port Metro Vancouver's contributions to preserve the environment in the Lower Mainland, visit http://www.portmetrovancouver.com/en/community/investinginthecommunity/Environment.aspx As part of ongoing environmental and technical work for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver has been and continues to undertake environmental studies including, but not limited to studies on biofilm and micro-organism, birds and bird habitat, and marine mammals. The studies focus on collecting baseline inventory information to develop an understanding of current conditions in the area. The results of these studies will be considered within the environmental effects assessment.
Habitat Enhancement and Mitigation	Skepticism regarding Port Metro Vancouver's Habitat Banking Program and the manner in which the Program could be used to mitigate project effects elsewhere in the region.	Fisheries and Oceans Canada is the primary regulator overseeing offsetting programs (which include habitat enhancement) through the *Fisheries Act* and Fisheries Productivity Investment Policy (FPIP). Information regarding the *Fisheries Act* and Fisheries Productivity Investment Policy and approaches to offsetting is described on pages 22, or visit the website: http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/index-eng.html. Habitat banking is widely accepted around the world and has been implemented extensively across Canada. Habitat banking has produced positive outcomes for offsetting development related residual effects.
Habitat Enhancement and Mitigation	Questions related to how the value of habitat improved as part of the Habitat Banking Program would be assessed and compared to the value of habitat affected by the project	To quantify losses and gains to habitat, Fisheries and Oceans Canada (DFO) uses an approach called offsetting equivalency. Offsetting equivalency describes the comparison between effects of a project and the benefits of an offsetting activity. A variety of factors are considered to undertake this analysis. For example, a proposed project will compare losses and gains across fish life stages, species and habitat types. For information on DFO's offsetting guidelines visit the website: http://www.dfo-mpo.gc.ca/pnw-ppe/offsetting-guide-compensation/index-eng.html

Topic	Consultation Input	Consideration of Input
Environmental Assessment Process	Questioning the relationship between the Port Metro Vancouver-led Pre-Design Consultation and the CEA Agency-led public comment period for the Project Description	Port Metro Vancouver has led several rounds of consultation, and has planned future consultations, regarding the proposed Roberts Bank Terminal 2 Project: • Pre-Consultation (June 2011) provided opportunities for local communities, stakeholders and public to provide input into the design of the consultation program. • Project Definition Consultation (Oct – Nov 2012) provided opportunities to identify potential issues and effects for the environmental assessment, and consultation on features of the proposed project. • Pre-Design Consultation (October – November 2013) presented opportunities for feedback on conceptual project design and sought input regarding elements of the project and the development of environmental mitigation plans. • Ongoing Port-led engagement regarding the proposed Roberts Bank Terminal 2 Project is available through the online Port Talk forum (http://www.porttalk.ca) and at the Delta Community Office (anticipated to open in the summer of 2014). Feedback can also be provided to local elected officials who participate in the Project's Local Government Elected Roundtable. Public input as part of the Port Metro Vancouver-led consultation will be considered, along with technical and financial information, in developing project designs or plans, including environmental mitigation plans. Regulatory agencies ultimately decide on environmental requirements. As part of the environmental assessment process, Port Metro Vancouver hopes to provide mitigation proposals that reflect input from communities, local governments and Aboriginal groups. Public consultation led by the Canadian Environmental Assessment Agency for the proposed Roberts Bank Terminal 2 Project have included: • Public comment period (September – October 2013) on the proposed Project and its potential effects on the environment. • Public comment period on the "Draft Guidelines for the Preparation of an Environmental Impact Statement for the proposed Roberts Bank Terminal 2 Project" (November – December 2013) to obtain input on which aspects of the environment may be affected by the proposed Project and what should be examined during the environmental assessment. Future Consultation by the CEA Agency may include: • Public comment period on the "Draft Terms of Reference" for the independent panel (date to be determined). • Public comment, alongside the government review, on the completeness or adequacy of the environmental impact statement (EIS). (Date to be determined; comment period will occur within a 5 month period after receipt of the EIS). Panel-led consultation may include: • Review Panel Hearings (Date to be determined ; public hearing will occur within a 14 month period after the panel has been appointed, assuming no delays for additional information in the EIS).

Topic	Consultation Input	Consideration of Input
		For more information about opportunities for public participation regarding the proposed Roberts Bank Terminal 2 Project visit the website: http://www.ceaa-acee.gc.ca/050/details-eng.cfm?evaluation=80054. Sign up for project-related updates, including consultation opportunities, at the website http://www.robertsbankterminal2.com/news-updates/get-project-updates/.
Environmental Assessment Process	Inquiry about the inclusion of a health assessment as part of the environmental assessment	As part of the environmental assessment for the proposed Roberts Bank Terminal 2 Project, Port Metro Vancouver will undertake a human health risk assessment. A description of the human health risk assessment is provided on page 15.
General	Advice provided regarding the Roberts Bank Terminal 2 Pre-Design Consultation program	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project.

INTERESTS OUTSIDE PORT METRO VANCOUVER JURISDICTION

The following comments were received during the Pre-Design Consultation period (October – November 2013) and reflect additional interests beyond the jurisdiction of Port Metro Vancouver. Provisional answers have been provided.

Topic	Consultation Input	Consideration of Input
Truck Routes	The following comments were received regarding truck routes: • Trucks should be banned from using the George Massey Tunnel • Trucks should use the Pattullo Bridge	As a port authority, Port Metro Vancouver does not have authority to control vehicle traffic outside its jurisdiction. Both the George Massey Tunnel and the Pattullo Bridge have been identified by the province as Designated Truck Routes of Regional Importance (part of the Major Road Network - MRN). The integrity of the truck route network is vital to the economic development and vitality of the region. It supports the competitiveness of local businesses and boosts productivity and access to local, national, and international markets. The Major Road Network route was developed in 1999 and included a public consultation process.
Truck Routes	Trucks should be banned from using residential roads	As a port authority, Port Metro Vancouver does not have authority to control vehicle traffic outside its jurisdiction. Municipal by-laws designate truck routes and truck areas for commercial vehicles. In some cases, these bylaws stipulate time zones when trucks can access certain routes. Municipalities in the Lower Mainland generally indicate that for destinations not on a truck route, a driver should use the most direct route between the origin and destination and the closest truck route must be used. In some locations, truck routes are marked with signage indicating direction of the truck route and time restrictions, where applicable. Consult with your local government regarding information and concerns related to truck use of highways, arterial roads and local streets for delivery and through movements by trucks.
Transportation Planning	Build rail overpasses in farm road areas for farm and emergency service traffic	Port Metro Vancouver has contributed funding towards infrastructure development. For example, Port Metro Vancouver and its industry partners contributed $50 million towards the Roberts Bank Rail Corridor (RBRC) projects developed to help mitigate the effects of increased rail on surrounding communities. The total cost of RBRC was $360 million, cost shared between several partners. For information on provincial infrastructure, including bridges and overpasses, visit the Ministry of Transportation and Infrastructure website: http://www.gov.bc.ca/tran/.
Transportation Planning	The following comments were provided regarding provincial infrastructure: • Have dedicated "port-only" lanes on approach roads to the Roberts Bank terminals • Install lane control measures on Alex Fraser Bridge	As a port authority, Port Metro Vancouver does not have authority over the highways and bridges outside the immediate area of the existing and proposed terminals. For information on provincial infrastructure, including bridges and highways, visit the Ministry of Transportation and Infrastructure website: http://www.gov.bc.ca/tran/.

Topic	Consultation Input	Consideration of Input
	• Increase the number of "pull-out" and rest areas along regional highways for drivers to inspect and care for their vehicles and themselves • Suggest increasing the radius of highway curves on Highway 1 and Highway 5 to allow the use of tandem 53-foot containers • Upgrade South Fraser Perimeter Road intersections from traffic lights to interchanges • River Road west from 32nd Avenue to Ladner city centre must be improved/widened	
Transportation Planning	Opposition and concerns regarding replacement of George Massey Tunnel	On September 20, 2013, Premier Christy Clark announced that the Government of British Columbia will replace the George Massey Tunnel with the construction of a new bridge on the existing Highway 99 corridor. This decision is in response to initial Province-led consultation in December 2012 and March 2013 that indicated public support for a new bridge on the existing Highway 99 corridor. This initial consultation revealed strong support for resolving the problem of congestion, safety and reliability at the Massey Tunnel. Ongoing consultation process and environmental assessment is being led by the British Columbia's Ministry of Transportation and Infrastructure. For information about the George Massey Tunnel Replacement Project visit the website: http://engage.gov.bc.ca/masseytunnel/.
Railways and Trucking	Railway companies and trucking companies should be taxed by municipalities	Port Metro Vancouver cannot respond regarding the tax contributions of railway and trucking companies, however according to BC Trucking Association's website, trucking companies can pay around $40,000 in taxes and fees each year, per truck, including motor fuel taxes and income taxes paid by the driver and other employees. Different tractor-trailer combinations will, of course, pay different amounts, depending on things like the amount of fuel used. For information visit the website: http://www.bctrucking.com/industry/taxation. For information about the tax revenue generated by port operations, please read the "2012 Port Metro Vancouver Economic Impact Study" at the website: http://portmetrovancouver.com/docs/default-source/about-facts-stats/2012-port-metro-vancouver-economic-impact-study.pdf?sfvrsn=0).
Public Transit	Expand public transit	Translink is responsible for Metro Vancouver's regional transportation, and services are delivered by several operating companies. For information on public transit and Translink, visit the website: http://www.translink.ca
Park-and-ride	Suggest a park-and-ride or shuttle service for Deltaport and new terminal employees	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project.

Topic	Consultation Input	Consideration of Input
		Port Metro Vancouver continues to develop plans for the proposed Roberts Bank Terminal 2 Project, and will take into consideration this comment and all feedback from the public.
Bike and Pedestrian Traffic	Suggest extending/improving the dike to accommodate both bike and pedestrian traffic	Thank you for your participation in the Pre-Design Consultation for the proposed Roberts Bank Terminal 2 Project. These suggestions may be included in the discussions related to community legacy benefits that could be provided as part of the proposed Roberts Bank Terminal 2 Project to ensure that local communities benefit from Port-related development.