

Fraser Surrey Docks LP Consideration of Public Comment Period Input

About this Consideration Memo

This Consideration Memo summarizes the input received from respondents during a public comment period held by Fraser Surrey Docks LP (FSD) from May 4 to May 19, 2015, and the consideration of this input by FSD. The Memo is divided into two sections: the first section addresses key themes as per the Consultation Summary Report (June 2015), available at www.fsd.bc.ca/amendment; the second section addresses specific comments received from local and regional government and the Fraser Health Authority.

- Section 1: Consideration of Input from Consultation Summary Report (Pages 3 – 10)
- Section 2: Consideration of Input – Comments from Local and Regional Governments and the Fraser Health Authority (Pages 10 – 16)

Introduction: Consideration to Amend Permit No. 2012 – 072 Direct Transfer Coal Facility

On August 21, 2014, FSD was granted a permit by Port Metro Vancouver (PMV) that gives it approval to build and operate a Direct Transfer Coal Facility within its existing lease area.

On May 4, 2015, FSD announced it was considering applying to amend its existing permit. The proposed amendment would allow FSD to load coal directly from the facility to ocean-going vessels (OGVs). Using OGVs would allow FSD to eliminate or reduce the number of barges required. The proposed amendment to the existing permit would have no impact on the volume of coal permitted to be shipped through FSD, which is 4 million metric tonnes per year.

Public Comment Period (May 4-19, 2015)

The purpose of the public comment period was to provide an opportunity for the public and stakeholders to review the proposed changes to the existing permit, and specifically for FSD to seek comments on the proposed scope of the studies associated with the amendment under consideration.

A total of **51 submissions** were received during the public comment period regarding FSD's consideration to amend the Permit. A summary of the input received during this public comment period can be found in the Consultation Summary Report.

The breakdown of submissions is as follows:

- Online Feedback Forms: 23
- Written Submissions: 22
- Local Government Submissions: 5
- Agency Meeting: 1 meeting (Fraser Health Authority)

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How feedback has been considered:

The input received during the public comment period was considered, along with technical and economic information, as FSD updated the studies required for its application to amend the existing permit.

The following documents provided to Port Metro Vancouver as part of FSD's application to amend the permit (in addition to supporting documents as part of the original permit application and the public comment period) are available at www.fsd.bc.ca/amendment:

- Addendum Report to the Human Health Risk Assessment (HHRA) (2015)
- Environmental Impact Assessment (EIA) Addendum (2015)
- Air Quality Assessment (AQA) Addendum (2015)
- Risk Assessment Update (2015)
- Summary of changes to the Environmental Management Plan (2015)
- Water Management Plan (WMP) Addendum (2015)
- Fire Life Safety Plan (2015)
- Spill Response Plan (2015)

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Section 1: Consideration of Input from Consultation Summary Report (Public Comment Period May 4-19, 2015)

Topic: Human Health Risk Assessment (HHRA)	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> • There are concerns about air pollution and poor air quality from airborne pollution and coal dust, and its impacts to human health, including: <ul style="list-style-type: none"> ○ Concern regarding allergies, asthma, and cancer ○ Potential impacts to the environment, plants, animals and homes 	<ul style="list-style-type: none"> • The Addendum Report to the Human Health Risk Assessment (2015) includes results from the Air Quality Assessment Addendum (2015), including dust particulates, as well as emission from OGVS berthed at FSD and along the marine transportation route on the Fraser River. • Air quality will be monitored throughout the construction period and during operations via two <i>Met One E-Sampler</i> air quality measurement stations sampling total particulate matter. If total particulate matter monitoring data exceeds air quality objectives or baseline levels, then the origin or source of the emissions will be investigated and documented. The cause and potential reasons will be determined and corrective action will be taken to ensure ambient air quality is below air quality objectives or baseline levels. • The receiving pit, or hopper, (below the railcars) will be entirely enclosed, apart from the grating at the top of the pit to allow for the entry of coal from the bottom-dump railcars.
<ul style="list-style-type: none"> • The HHRA is too narrow and should address all potential adverse impacts for the entire transport route and FSD's site, including: <ul style="list-style-type: none"> ○ Marine and rail routes ○ Project-related emissions from equipment on site ○ The cumulative impacts of industry in the area, including newly approved and pending projects that will impact the South Arm of the Fraser River 	<ul style="list-style-type: none"> • The scope of the HHRA was undertaken at the direction of Port Metro Vancouver. • For FSD's proposal, the scope of study and review included the terminal site and the portion of the ocean-going vessel route along the Fraser River – it does not include the rail corridor from the Canada/U.S. border to the terminal site, the route of the vessel, or other industrial activities along the Fraser River. • Although the rail corridor is outside of Port Metro Vancouver jurisdiction, FSD expanded the Air Quality Assessment and the Human Health Risk Assessment to include sections along the railway from White Rock to the FSD terminal.

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Topic: Environmental Impact Assessment (EIA)	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> There are concerns about a potential increase in operational and construction noise related to the proposed amendment, and respondents stated that noise impacts from trains and ships should be considered in the updated studies and in mitigation commitments. 	<ul style="list-style-type: none"> Most construction activities will take place between 7:00AM and 7:00PM to minimize potential impacts to neighbouring communities. This timing is consistent with City of Surrey and Corporation of Delta noise bylaws. FSD will ensure that appropriate communication is provided to residents for any construction work outside of the noise bylaws. Pile driving work will be performed in accordance with industry best practices. Vibratory driving rather than hammer driving, will be used to reduce noise. Project design minimizes unloading and conveyor noise. The receiving pit and the conveyor system will be enclosed. All conveyors will be operated via electric motors in order to minimize noise. Ship noise from Panamax sized ocean-going vessels will be comparable to the noise currently generated by similar sized vessels that already berth at FSD. FSD and its rail partner intend to minimize rail noise through several mitigation measures, including: <ul style="list-style-type: none"> Limiting the speed of rail movements within FSD and the adjacent Port Authority Rail Yard to 3 miles per hour or less Using continuously welded rail for the new rail segments Ensuring that the turning angles of all new project rail installed at FSD are 12 degrees or less in order to minimize noise created by the steel railcar wheels, and the use of rail greasers may be considered as well
<ul style="list-style-type: none"> The environmental impacts associated with the shipment of coal from FSD need to be re-evaluated with broader scope, including impacts on areas outside of the immediate environment. 	<ul style="list-style-type: none"> The scope of the environmental review is determined by Port Metro Vancouver, which is required to authorize any works on federal lands. For FSD's proposal, the scope of study and review included the terminal site and the portion of the ocean-going vessel route along the Fraser River – it does not include the rail corridor from the

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	Canada/U.S. border to the terminal site, the route of the vessel, or other industrial activities along the Fraser River.
Topic: Air Quality Assessment (AQA)	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> • Air quality impacts associated with the release of coal dust from trains transferring and transporting coal in the region, from terminals, or from OGVs should be considered in the scope of the study. 	<ul style="list-style-type: none"> • The original Air Quality Assessment (June 2014) was completed with a scope that included an assessment of air quality impacts: <ul style="list-style-type: none"> ○ At 7 different points along the rail route in Metro Vancouver ○ At 4 different points along the marine route between FSD and the mouth of the Fraser River • Potential air quality impacts related to the amendment have been assessed in the Air Quality Assessment Addendum (2015). • The Air Quality Management Plan will be developed prior to operation as a condition of the original permit, and will include on-going monitoring. • Air quality impacts from ocean-going vessel emissions are assessed in the AQA Addendum (2015). • To comply with the rail partner's loading requirements, all customers will be required to contractually commit to: <ul style="list-style-type: none"> ○ Applying a veneer suppressant at mines pre-departure, which binds the surface particles together to provide a membrane that is resistant to dust lift-off, and a second time prior to arriving at FSD ○ Profiling coal loads in accordance with the rail partner's loading profile ○ Removing excess coal on wagon sills by using a car sill brush • The sides and bottom of the empty cars will be automatically sprayed with dust suppressant to remove any remaining coal after leaving the rail receiving building at a defined wash car station. The spray device is configured in an arch shape along either side and across the bottom, with nozzles at specific intervals to ensure full coverage. The spray device is automatically triggered from a sensor in the track that recognizes movement of the railcar. All water collected from car

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	washing will be automatically pumped to the adjacent water treatment/settling pond for proper handling, recycling and/or disposal.
<ul style="list-style-type: none"> There are concerns about the impacts of poor air quality on human health, such as allergies and asthma, from airborne pollution and coal dust, and from impacts on the environment, including climate change and pollution. 	<ul style="list-style-type: none"> Potential health impacts from coal dust and pollution as a result of the project and proposed amendment are within the scope of the Human Health Risk Assessment, and have been assessed in the updated studies, including the Human Health Risk Assessment Addendum (2015). Potential air quality impacts related to the amendment have been assessed in the Air Quality Assessment Addendum.
<ul style="list-style-type: none"> The proposed scope of the Air Quality Assessment should: <ul style="list-style-type: none"> Include information on how many cars form each train Include information on where coal will be stored if not loaded immediately on to a ship Link to the Environmental Impact Assessment Consider upstream and downstream impacts 	<ul style="list-style-type: none"> Potential air quality impacts related to the amendment have been assessed in the Air Quality Assessment Addendum (2015), which will be available in Round 2 Public Consultation. The facility will continue to be a direct transfer from rail to ocean-going vessel and there will be no stockpiles of coal on site as part of the amendment. FSD estimates 320 trains will arrive each year, approximately one train per day and each train will generally include 125 cars (up to a maximum of 135 cars). The proposed amendment to the existing permit would have no impact on the volume of coal permitted to be shipped through FSD, which is 4 million metric tonnes per year.
Topic: Marine Risk Assessment	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> The permit should include a rigorous review of the risk and consequences of all accident and spills of any kind along the route and potential adverse impacts, including a discussion of: <ul style="list-style-type: none"> The owners, operators and crews of project vessels An assessment of the risk of all types of project-related vessel accidents The types and volumes of propulsion fuel that would be carried by project-related OGVs 	<ul style="list-style-type: none"> As part of the amendment application, a Marine Risk Assessment Update (DNV 2015) has been prepared with regards to the change from barges to ocean-going vessels. This study reviewed the risks and potential consequences of project-related marine incidents. Owners, operators and crew of vessels, and safety communications systems and equipment are governed under Transport Canada and International Marine Organization (IMO) standards which fall outside of FSD's scope.

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<ul style="list-style-type: none"> ○ The safety-communication systems and equipment that would be on board each project-related vessel and how it would be maintained ○ Rescue protocols and maritime accident response infrastructure along the route to the open ocean ○ Operational discharges of oil from project-related vessels ○ Who would pay the costs for all impacts resulting from a project-related accident ○ Increases in the number of bunker-fuelled vessels transiting through the Salish Sea 	<ul style="list-style-type: none"> ● As part of the amendment application, a Spill Response Plan has been prepared with regards to the change from barges to ocean-going vessels, and includes response protocols for liquid spills. ● Rescue protocols and maritime accident response is the responsibility of the Coast Guard. Port Metro Vancouver is responsible for vessels operating within PMV’s Navigational Jurisdiction (in Burrard Inlet and the Fraser River).
<ul style="list-style-type: none"> ● Risks associated with the cumulative increase in shipping traffic in the region should be considered. 	<ul style="list-style-type: none"> ● In consideration of the proposed amendment, DNV (Det Norske Veritas) provided a Risk Assessment Update (2015). DNV determined that project-related marine incidents are expected to occur less frequently when all Panamax class vessels are used in transit, compared with the existing permit. ● Practices and Procedures at Port Metro Vancouver are pursuant to Section 56 of the <i>Canada Marine Act</i> and are designed to promote safe and efficient navigation within the local waters of Port Metro Vancouver and to protect the marine environment. ● For FSD’s proposal, the scope of study and review included the terminal site and the portion of the ocean-going vessel route along the Fraser River – it does not include the rail corridor from the Canada/U.S. border to the terminal site, the route of the vessel, or other industrial activities along the Fraser River.
<ul style="list-style-type: none"> ● The proposed scope of the Marine Risk Assessment is inadequate, because of the inability to mitigate constant cumulative industrial impacts on the marine environment, including: <ul style="list-style-type: none"> ○ Increased ballast water discharges and associated risk of introducing invasive species ○ Oil spills 	<ul style="list-style-type: none"> ● The updated Spill Response Plan addresses topics related to spills. Bunkering, when occurring at the berth, has been completed as per the bunkering/vessel operational procedures, which are outside of FSD’s scope, but has been addressed in the new Spill Response Plan. ● For FSD’s proposal, the scope of study and review included the terminal site and the portion of the ocean-going vessel route along the Fraser River – it did not include the rail corridor from the

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<ul style="list-style-type: none"> ○ Vessel noise (especially as it affects the southern resident killer whales) ○ Anchoring for queuing and/or bunkering ○ Vessel traffic related to any bunkering-related activities 	<p>Canada/U.S. border to the terminal site, the route of the vessel, or other industrial activities along the Fraser River.</p> <ul style="list-style-type: none"> ● The management of ballast water and invasive species is governed under Transport Canada and International Marine Organization (IMO) standards which fall outside of FSD’s scope.
<p>Topic: Environmental Management Plan (EMP)</p>	
<p>Input</p>	<p>FSD’s Consideration of Input</p>
<ul style="list-style-type: none"> ● The scope of the Environmental Management Plan should be broader to include: <ul style="list-style-type: none"> ○ Analysis beyond the proposed loader to see if there is something that would better reduce coal dust ○ The cumulative impacts of newly approved and pending projects that will impact the South Arm of the Fraser River, as they relate to the type of Panamax vessel being proposed 	<ul style="list-style-type: none"> ● The receiving pit (below the railcars) will be entirely enclosed apart from the grating at the top of the pit to allow for the entry of coal from the bottom-dump railcars. ● Air quality will be monitored throughout the construction period and during operations via two <i>Met One E-Sampler</i> air quality measurement stations sampling total particulate matter. If total particulate matter monitoring data exceeds air quality objectives or baseline levels, then the origin or source of the emissions will be investigated and documented. The cause and potential reasons will be determined and corrective action will be taken to ensure ambient air quality is below air quality objectives or baseline levels. ● The marine vessel loader will be designed and operated according to the Best Available Technology Not Entailing Excessive Cost (BATNEEC).
<ul style="list-style-type: none"> ● There should be containment and catch basins on the dock face 	<ul style="list-style-type: none"> ● The facility has been designed to include containment and catch basins and details of these can be found in the updated Spill Response Plan and Water Management Plan Addendum. The submitted plans will show catchment areas and utilities such as catch basins.
<p>Topic: Water Management Plan</p>	
<p>Input</p>	<p>FSD’s Consideration of Input</p>
<ul style="list-style-type: none"> ● The scope of the Water Management Plan should be widened to take into account: 	<ul style="list-style-type: none"> ● FSD has applied to Metro Vancouver for a Waste Discharge Permit. As part of the permit process, Metro Vancouver will review the waste discharge from the facility.

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<ul style="list-style-type: none"> ○ Impacts to the environment, including air, the river system and human health ○ Submissions received during Metro Vancouver’s public comment period related to FSD’s waste discharge permit application 	<ul style="list-style-type: none"> ● These concerns are also addressed in the Water Management Plan and the Environmental Impact Assessment.
<p>Topic: Fire Life Safety Plan</p>	
<p>Input</p>	<p>FSD’s Consideration of Input</p>
<ul style="list-style-type: none"> ● The Fire Life Safety Plan is flawed because we are unable to mitigate such risks to the environment, and because the plan will not be effective in stopping fires and preserving life/safety. 	<ul style="list-style-type: none"> ● FSD has worked with independent experts and our operational partners to develop detailed emergency response procedures for the Project. For emergency preparedness at the FSD site, we have worked with RKMS Group and Hatch Mott MacDonald to ensure that applicable standards and best industry practice are followed. A Fire Life Safety Plan (2015) has been prepared in consideration of the proposed amendment.
<ul style="list-style-type: none"> ● There are outstanding questions, including: <ul style="list-style-type: none"> ○ Whether Delta and Surrey Fire Departments will assist in fire response ○ Whether a more accessible route will be provided for emergency access to FSD 	<ul style="list-style-type: none"> ● As soon as a fire is detected, the situation will be immediately addressed as per FSD’s Emergency Response Plan. ● The Surrey Fire Department is the first responder for a fire emergency at FSD, with Corporation of Delta Fire Department as the secondary responder. ● Emergency access will be available through Elevator Road and Tannery Road off of the South Fraser Perimeter Road. Safe road access will be maintained and provided to the terminal and surrounding areas, even in the event of the future closure of the Elevator Road connection to the South Fraser Perimeter Road.
<p>Topic: Spill Response Plan</p>	
<p>Input</p>	<p>FSD’s Consideration of Input</p>
<ul style="list-style-type: none"> ● There is a lack of confidence in the Spill Response Plan because the containment of the oil spill in English Bay in 2015 was inadequate. 	<ul style="list-style-type: none"> ● As part of the amendment application a new Spill Response Plan has been prepared with regards to the change from barges to ocean-going vessels.

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Topic: Additional Comments	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> Concern with the process, including the approval process, and a lack of meaningful public consultation. 	<ul style="list-style-type: none"> FSD has proposed to increase the length of Round 2 Public Consultation from 3 weeks to 4 weeks, in response to requests for more time for public comment and consideration. Information about Round 2 Public Consultation is available at www.fsd.bc.ca/amendment. FSD undertook two rounds of consultation regarding the original permit application and a public comment period prior to applying for an amendment to the existing permit. For questions around the permitting process, please contact Port Metro Vancouver.

Section 2: Consideration of Input – Comments from Local and Regional Government and the Fraser Health Authority

For the convenience of the reader, the input received from these groups is listed in the following table. The first part addresses input from local and regional government (including City of New Westminster, City of Surrey, Corporation of Delta, City of Richmond, and Metro Vancouver), while the second part of the table addresses feedback from the Fraser Health Authority.

Topic: Human Health Risk Assessment:	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> Stated that the HHRA, EIA, AQA, Marine Risk Assessment, EMP, and Spill Response Plan should take into account cumulative impacts of newly-approved and pending projects that will impact the South Arm of the Fraser River, including the recently-certified VAFFC Jet Fuel Terminal project, the George Massey Tunnel Replacement project, and LNG terminal expansion at Tilbury. 	<ul style="list-style-type: none"> FSD is unable to manage and mitigate the actions and impacts of other shipping operations. For FSD's proposal, the scope of study and review included the terminal site and the portion of the ocean-going vessel route along the Fraser River – it does not include the rail corridor from the Canada/U.S. border to the terminal site, the route of the vessel, or other industrial activities along the Fraser River. FSD has studied what is within the scope of its application to amend the existing permit.
<ul style="list-style-type: none"> Requested an independent Health Impact Assessment, including an assessment of health risks associated with all 	<ul style="list-style-type: none"> The Air Quality Assessment includes diesel particulates from emissions onsite, the rail corridor in Surrey and White Rock, and on the marine transportation route along the Fraser River. The Human

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<p>project-related diesel particulate matter emissions (from rail and marine transport, and from equipment onsite).</p>	<p>Health Risk Assessment is based, in part on the results of the Air Quality Assessment, and has been re-assessed in the HHRA Addendum.</p> <ul style="list-style-type: none"> • The scope of the environmental review is determined by Port Metro Vancouver, which is required to authorize any works on federal lands. • For FSD’s proposal, the scope of study and review included the terminal site and the portion of the ocean-going vessel route along the Fraser River – it does not include the rail corridor from the Canada/U.S. border to the terminal site, the route of the vessel, or other industrial activities along the Fraser River.
<ul style="list-style-type: none"> • Stated that Golder Associates identified a number of minor errors throughout the HHRA document, and suggested that these errors be corrected in the updated HHRA. The respondent stated that it would be appropriate to re-evaluate conservative assumptions about the hazard quotient and recalculate risks or to identify these elevated predictions as an item that should be addressed in the AQMP. 	<ul style="list-style-type: none"> • Any errors identified that are relevant to the HHRA Addendum report have been corrected. • In the HHRA Addendum, where HQs approaching target levels have been estimated, the conservative assumptions and uncertainty in those estimates have been evaluated. • The AQMP is a condition of the permit, which will be submitted to Port Metro Vancouver prior to operation.
<ul style="list-style-type: none"> • Stated that concerns related to FSD’s facility are centred on issues of noise. 	<ul style="list-style-type: none"> • Most construction activities will take place between 7:00AM and 7:00PM to minimize potential impacts to neighbouring communities. This timing is consistent with City of Surrey and Corporation of Delta noise bylaws. • FSD will ensure that appropriate communication is provided to residents for any construction work outside of the noise bylaws. • Pile driving work will be performed in accordance with industry best practices. Vibratory driving rather than hammer driving, will be used to reduce noise. • Project design minimizes unloading and conveyor noise. The receiving pit and the conveyor system will be enclosed. All conveyors will be operated via electric motors in order to minimize noise. • FSD and its rail partner intend to minimize rail noise through several mitigation measures, including: <ul style="list-style-type: none"> ○ Limiting the speed of rail movements within FSD to 3 mph; ○ Using continuously welded rail for the new rail segments;

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	<ul style="list-style-type: none"> o Ensuring that the turning angles of all new project rail installed at FSD are 12 degrees or less in order to minimize noise created by the steel railcar wheels, and the use of rail greasers may be considered as well.
Topic: Environmental Impact Assessment	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> • Expressed concerns about the scope of the Environmental Impact Assessment, including requests for current areas of impact in the EIA to include marine vessel operations in the South Arm of the Fraser River, Richmond's foreshores and the provincially-designated wetlands that constitute the South Arm Islands Wildlife Management Area as well as for analysis of the global impacts of American thermal coal on greenhouse gas emissions and climate change. 	<ul style="list-style-type: none"> • For FSD's proposal, the scope of study and review included the terminal site and the portion of the ocean-going vessel route that is in the Fraser River – it did not include the rail corridor from the Canada/U.S. border to the terminal site, the route of the vessel, nor global impacts such as climate change.
<ul style="list-style-type: none"> • Stated that a clearer definition of the types of coal products to be trans-shipped at FSD needs to be made, as risks to human health and the environment shift with the type of product being shipped. This respondent stated that a clear definition of types of coal, and sources must be included in the EIA and PMV certificate, and include well-articulated requirements, clearly outlining the Proponent responsibilities and tasks to amend the commodity type or source. 	<ul style="list-style-type: none"> • While some variability exists in coal seams, the quality of the coal shipped to FSD must meet contractual specifications. Consequently, FSD can be reasonably confident in the coal quality being received.
Topic: Air Quality Assessment	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> • Stated that concerns related to FSD's facility are centred on the issues of air quality and coal dust. 	<ul style="list-style-type: none"> • Air quality will be monitored throughout the construction period and during operations via two <i>Met One E-Sampler</i> air quality measurement stations sampling total particulate matter. If total particulate matter monitoring data exceeds air quality objectives or baseline levels, then the origin or source of the emissions will be investigated and documented. The cause and potential reasons will be determined and corrective action will be taken to ensure ambient air quality is below air quality objectives or baseline levels.

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	<ul style="list-style-type: none"> • At the FSD site, potential dust will be managed using a number of mitigation strategies, including an enclosed conveyor system and transfer points, which will also be equipped with water sprayers, as well as a variable height marine vessel loader to reduce coal drop height to the extent that is practical during loading. • Each railcar will have a veneer suppressant applied at the mines pre departure and a second time mid-way to the facility. The coal will also have a binder agent applied to the bulk of the coal prior to it being loaded into the car. This binds the surface particles together to provide a membrane that is resistant to dust lift off.
<ul style="list-style-type: none"> • Stated that the Air Quality Management Plan should be updated and requested that FSD differentiate between coal related emissions and non-FSD sources. Respondents also requested ongoing dust monitoring, including a quantification of coal dust impacts at the nearest resident location through a filter-based collection of particulate matter coupled with a detailed lab analysis of the filters. 	<ul style="list-style-type: none"> • The Air Quality Management Plan will be developed prior to operation, and is a condition of the original Permit. The Air Quality Management Plan will take these comments into consideration.
<ul style="list-style-type: none"> • Stated concerns with particulate, NO_x, SO_x, VOC, CO and CO₂ analysis related to OGV power sources, namely: <ul style="list-style-type: none"> ○ A request that these be assessed while a vessel is docked and over the entire length of vessel routes to and from Fraser Surrey Docks, rather than at four discrete locations ○ It should be considered whether vessels would be shipped partially loaded, which would be the equivalent of replacing less than eight loaded barges. Moreover, the respondent stated that the modelling should take into consideration the full range of coal handling capacity being considered at FSD, both near and longer term ○ Concerns that the background air quality used in section 5.4 of the Air Quality Assessment (Project 	<ul style="list-style-type: none"> • Potential air quality impacts related to the amendment, including marine vessel emissions, have been assessed in the Air Quality Assessment Addendum (2015 to determine the incremental changes between barges and ocean-going vessels • Consideration has been given, in the AQA, to the frequency/number of return-trip vessel movements per year. As a conservative approach the Air Quality Assessment included emission estimates that exceed the actual emissions from 80 inbound/outbound ocean-going vessels. • The monitoring stations used to characterize the background air quality were chosen based on their representativeness, proximity to FSD's facility and the air quality parameters monitored. Specifically, the T06 North Vancouver – Second Narrows station was chosen due its position in a busy commercial and industrial setting. It is designated as a 'Special Purpose – Industry' station.

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<p>Emissions Sources) is not representative and could result in an underestimation of cumulative effects</p>	
<ul style="list-style-type: none"> Requested that FSD clarify the use of “as required” in Section 2.2.4.1 of the AQA (“FSD will use recycled drainage wastewater...for dust suppression on site to wet down as required the barges, coal conveyor transfer points, the receiving building pits...”). The respondent noted that this suggests wetting will not be continuous, but control factors used in the emission estimation are for continuous application. 	<ul style="list-style-type: none"> Dust suppression will be applied continuously; however, the intensity may vary, as required, to mitigate emissions.
<ul style="list-style-type: none"> Requested that Table 3-1 and subsequent portions of the updated AQA be updated to reflect Metro Vancouver’s adoption of an interim 1-hour Sulphur dioxide objective 75 parts per billion. 	<ul style="list-style-type: none"> The AQA Addendum (2015) reflects this update.
<ul style="list-style-type: none"> Suggested that the section of the updated study corresponding to Section 5.8.1 of the existing study should provide the hourly, daily and annual wind speeds that were used in the emission estimates. 	<ul style="list-style-type: none"> Winds speeds used in the calculations are illustrated in the AQA Addendum (2015).
<ul style="list-style-type: none"> Noted, in reference to Section 9 of the AQA (Combustion VOC Speciation), that the 2015 report “Toxic Air Pollutants Risk Assessment” may include updated VOC speciation profiles for various emission sources. 	<ul style="list-style-type: none"> This has been noted and included in the AQA Addendum (2015).
<p>Topic: Marine Risk Assessment</p>	
<p>Input</p>	<p>FSD’s Consideration of Input</p>
<ul style="list-style-type: none"> Requested more information regarding the ultimate limits on OGV size that can be accommodated at FSD. This respondent inquired what the factors limit the ability to accommodate larger ships. The respondent stated that any dredging of the Fraser River or other seaway modifications must be identified in the Marine Risk Assessment, Environmental Management Plan, and in turn be included in the EIA. 	<ul style="list-style-type: none"> The proposed amendment states that FSD will use Panamax size vessels with a maximum-loaded draft of 11.5 metres, similar to the vessels that currently berth at FSD. No seaway modifications would be undertaken as a result of the amendment. As part of the amendment application, a Risk Assessment Update, a Construction Environmental Management Plan, and Environmental Impact Assessment Addendum have been prepared with regards to the change from barges to ocean-going vessels.
<p>Topic: Water Management Plan</p>	

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Input	FSD's Consideration of Input
<ul style="list-style-type: none"> Requested further information regarding the feasibility for treatment of FSD's site wastewater through the Annacis Island Wastewater Treatment Plant. This concern relates to the current and future capacity of regional facilities to treat both the volume and constituent wastewater components resulting from FSD's coal facility. 	<ul style="list-style-type: none"> FSD has applied to Metro Vancouver for a Waste Discharge Permit, which would allow FSD to discharge to the Annacis Island Treatment Facility to ensure it is properly treated
Topic: Spill Response Plan	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> Indicated that the Spill Response Plan must now account for the handling of Bunker fuels typically used by Panamax vessels, and any accessory activities (such as bunkering of docked ships), and impacts over the entire length of the South Arm of the Fraser River. 	<ul style="list-style-type: none"> FSD is committed to spill prevention and is developing detailed Standard Operating Procedures for spill response and containment. As part of the amendment application a new Spill Response Plan has been prepared with regards to the change from barges to ocean-going vessels.
Topic: Additional Comments	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> Noted that the direct transfer from train to OGVs presents an increased logistical risk related to the timing of coal arrival, and ship availability, and stated that it does not support the stockpiling of coal at this facility. 	<ul style="list-style-type: none"> The facility will continue to be a direct transfer from rail to ocean-going vessel and there will be no stockpiles of coal onsite as part of the amendment. FSD anticipates receiving an average of one train per day, so vessel loading would occur over four days. The scheduling of railcar arrivals will be done in accordance with vessel schedule to ensure that train staging at the terminal is minimized. FSD has been direct-transferring a variety of products for over 50 years and we have experienced staff whose sole responsibility is to coordinate the arrival and departure times of railcars and vessels.
<ul style="list-style-type: none"> Expressed concern that the Port Authority lacked the authority to issue the Permit to FSD or to make a determination under s.67(a) of the <i>Canadian Environmental Assessment Act</i>. 	<ul style="list-style-type: none"> For questions related to the permitting process, please contact Port Metro Vancouver.
<ul style="list-style-type: none"> Noted that in previous correspondence with Port Metro Vancouver, it has requested the involvement of the 	<ul style="list-style-type: none"> The approval processes, including required studies and the scope of studies, are laid out by Port Metro Vancouver, the regulatory body for the environmental review process.

Fraser Surrey Docks LP
Consideration of Public Comment Period Input

<p>Independent Interagency Review Committee in this process and stated that this request will be reiterated.</p>	
Fraser Health Authority	
Input	FSD's Consideration of Input
<ul style="list-style-type: none"> • A project such as this could have impacts beyond the scope of the footprint, and without that data available, it is difficult to reassure community concerns. 	<ul style="list-style-type: none"> • This public comment period relates only to the updating of studies, as necessary, for the amendment.
<ul style="list-style-type: none"> • The Fraser Health Authority was interested in reviewing the assessment of ocean-going vessels as part of the consideration to apply for an amendment, in terms of both marine risk and emissions. 	<ul style="list-style-type: none"> • As part of the proposed amendment, a Risk Assessment Update has been prepared with regards to the change from barges to ocean-going vessels. An Air Quality Assessment Addendum has also been prepared, and the results have been included in the Addendum Report to the Human Health Risk Assessment. • Port Metro Vancouver has indicated that it will consult with the Coastal and Fraser Health Authorities on the proposed amendment.
<ul style="list-style-type: none"> • A Health Impact Assessment is recommended and would be mutually beneficial, in terms of looking at all factors, identifying potential future risks and mitigation, and providing a balanced approach for moving forward. 	<ul style="list-style-type: none"> • FSD is seeking to amend its existing permit and therefore, has proceeded to update the existing HHRA.