Fraser Surrey Docks LP
Application to Amend Permit No. 2012 – 072
Direct Transfer Coal Facility

Consultation Summary Report
Round 2 Public Consultation July 17 – August 21, 2015

September 2015

Prepared by:
Kirk & Co. Consulting Ltd.
About Kirk & Co. Consulting Ltd.
Kirk & Co. is a recognized industry leader in designing and implementing comprehensive public and stakeholder consultation and engagement programs. Utilizing best practices, consultation and engagement programs are designed to maximize opportunities for input. Kirk & Co. independently analyzes and reports on public and stakeholder input.

The views represented in this report reflect the priorities and concerns of respondents. They may not be representative of the views of the public and other stakeholders as a whole because respondents self-selected into the public consultation, and therefore do not reflect a random sample.
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1. Introduction

1.1. Application to Amend Permit No. 2012 – 072 Direct Transfer Coal Facility

On August 21, 2014, Fraser Surrey Docks LP (FSD) was granted a project permit by Port Metro Vancouver 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 project permit in order to load coal directly to ocean-going vessels (OGVs). FSD sought comments, May 4 to 19, 2015, from the public and stakeholders on the proposed scope of the studies associated with the amendment under consideration to its existing permit.

On June 19, 2015, FSD applied to amend its existing project permit. The application was made following consideration of feedback received during Round 1 Public Comment Period and information provided by subject-matter experts.

The proposed amendment would allow FSD to load coal directly from the facility to OGVs. Using OGVs would allow FSD to eliminate or reduce the number of barges required. The proposed amendment to the existing project permit would have no impact on the volume of coal permitted to be shipped through FSD, which is 4 million metric tonnes per year. In 2014 approximately 38 metric million tonnes of coal were handled by two existing terminals in Port Metro Vancouver’s jurisdiction.

More information about FSD’s application to amend Permit No. 2012 – 072 can be found at www.fsd.bc.ca/amendment.

2. Round 2 Public Consultation – July 17 – August 21, 2015

2.1 Purpose – Round 2 Public Consultation

The purpose of Round 2 Public Consultation, July 17 to August 21, 2015, undertaken by FSD after submission of the project permit application was to provide the opportunity for all stakeholders to submit comments on the project permit. During the public consultation FSD sought comments regarding the proposed changes to the design and on the results of the studies associated with the amendment to the existing project permit.


Changes to the project that will be made if the amendment is granted, include:

- The current size and height of the marine vessel loader would be increased (up to a maximum height of 36.2 metres), allowing for direct loading to OGVs.
- The use of OGVs would replace most or all barges. If approved, FSD expects to replace all 640 barges with 80 Panamax class OGVs, but would retain barging as a potential secondary option.
- It is anticipated that the use of OGVs would further mitigate the potential for dust, as coal would be transported in OGVs with closed hatches.
- The conveyance system, rail receiving building, receiving pit and rail tracks would be shifted on-site to accommodate the larger marine vessel loader.
- The footprint of the facility area would decrease by approximately 10–15%, which would reduce the amount of rainwater runoff collected.

A copy of the Discussion Guide and Feedback Form can be found in Appendix A.
2.2 Notification
The following notification methods were utilized to inform the public and stakeholders of the public consultation period:

- **Notification Emails**: 115 emails were sent to stakeholders (local governments, environmental organizations, health authorities, MLAs and others) on July 17, 2015, with information about the public consultation.

- **Phone Calls**: Phone calls were made to stakeholders (local governments, environmental organizations, health authorities, MLAs and others) to inform them of the public consultation, as follow-up to the email notification.

- **Online Advertising**: Online notification advertisements ran from July 17 – August 21, 2015, on the following sites, with the following results:
  - **Surrey Leader**: 28,102 impressions
  - **New Westminster Record**: 15,006 impressions

  *A copy of the advertisements that ran online can be found in Appendix B.*

- **Newspaper Advertising**: Advertisements ran in the following community newspapers between July 22 and July 30, 2015:

<table>
<thead>
<tr>
<th>Publications</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Surrey Leader</em></td>
<td>Wednesday, July 22 and</td>
</tr>
<tr>
<td><em>New Westminster NewsLeader</em></td>
<td>Wednesday, July 29</td>
</tr>
<tr>
<td><em>Burnaby Now</em></td>
<td></td>
</tr>
<tr>
<td><em>New Westminster Record</em></td>
<td></td>
</tr>
<tr>
<td><em>Delta Optimist</em></td>
<td></td>
</tr>
<tr>
<td><em>Surrey Now</em></td>
<td>Thursday, July 23 and</td>
</tr>
<tr>
<td><em>Richmond News</em></td>
<td>Thursday, July 30</td>
</tr>
<tr>
<td><em>Peace Arch News</em></td>
<td></td>
</tr>
</tbody>
</table>

  *A copy of the advertisements that ran in the community newspapers can be found in Appendix B.*

- **Postcard Mailer**: 10,386 households in Surrey and New Westminster received a postcard that informed recipients of ways to participate in the public consultation period. The postcards were sent during the week of July 20, 2015 to households near FSD.

  *The postcard mailer and maps illustrating where the postcards were delivered can be found in Appendix B.*

- **Website**: Notification of the public consultation period and a button that linked to the Discussion Guide and online Feedback Form were displayed on Fraser Surrey Docks’ home page (www.fsd.bc.ca) from July 17 – August 21, 2015. A link to the webpage with information about the amendment (www.fsd.bc.ca/amendment) was also displayed on the Projects Updates page.

  *A copy of the website can be found in Appendix B.*

- **Information Bulletin**: On July 17, 2015, an information bulletin was sent to regional and provincial media to advise them of the public consultation period.

  *A copy of the information bulletin be found in Appendix B.*
2.3 Methods

Materials, including the Discussion Guide and Feedback Form and the full application submitted to Port Metro Vancouver, were made available online at www.fsd.bc.ca/amendment beginning on July 17, 2015. Feedback was collected through the following methods:

- **Discussion Guide and Feedback Form**

  A Discussion Guide provided an overview of the proposed changes to the existing project permit and also included a Feedback Form where respondents’ feedback could be captured and submitted.

  The Discussion Guide and Feedback Form reviewed aspects of the existing project permit that FSD applied to amend, and sought comments regarding the proposed changes to the design and on the results of the studies associated with the amendment.

  The Discussion Guide and Feedback Form were available for download, and an online version of the Feedback Form was available at www.fsd.bc.ca/amendment during the public consultation period. A copy of the Discussion Guide and Feedback Form can be found in Appendix A.

- **Small Group Meetings**

  Two small group meetings were held in Surrey on July 29 and July 30, 2015. The small group meetings were open to members of the public and advertised as part of the notification outlined in Section 2.2. Meeting attendees included residents from Surrey and New Westminster, and representatives from local and regional government, health authorities, community groups and industry.

  Representatives of FSD attended the meetings, along with a facilitator and meeting recorder from Kirk & Co. A representative from Port Metro Vancouver attended and observed the meetings. Participants were provided with the Discussion Guide and Feedback Form, and display boards were also set up at the meetings to provide an additional opportunity to review the materials. A copy of the display boards can be found in Appendix C.

  Representatives of FSD provided information about the application for an amendment, focusing on the proposed changes to the design and on the results of the studies associated with the amendment. Participants were invited to ask questions and provide feedback during the meetings.

  Key themes from these meetings are summarized in Section 3.2 on page 11.

- **Email, Mail and Phone**

  Participants were provided with the opportunity to submit Feedback Forms by email or mail, or provide open submissions by email, mail or phone.
2.4 Participation
A summary of the input received can be found starting in Section 3 on page 7.

During the public consultation period the following submissions were received:

- 375 submissions were received from residents in Richmond, Surrey, Delta and New Westminster.
- 787 submissions were received from residents in Metro Vancouver (excluding those mentioned above).
- 991 submissions were received from residents of B.C. and Canada (excluding those mentioned above).
- 1,389 submissions were received from residents outside of Canada.

*49 individuals did not identify a place of residence.

During the public consultation period feedback was received through the following methods:

- Online Feedback Form: 40 received
- Written Submissions: 3,551 received
  - Emails: 2,040
  - Postcards submitted to Port Metro Vancouver: 137
  - Form Letter from residents of the United States: 1,374
- Small Group Meetings: 2 meetings (22 participants)

Input received through the online Feedback Form and written submissions has been summarized in Section 3.

Most of the submissions received from Canadian respondents were sent via an embedded email template sponsored by the Dogwood Initiative (see Appendix D). Respondents entered their information and a response into the template which generated delivery of an email to amendment@fsd.bc.ca, Port Metro Vancouver, and the Federal Transport Minister.

A copy of the postcards submitted to Port Metro Vancouver can be found in Appendix D.

1,374 responses were received from residents of the United States. These responses were made in an identical letter which is summarized on page 10, with the full draft in Appendix E.

In addition to the submissions received during the public consultation period a petition was presented to Jeff Scott (President and CEO of Fraser Surrey Docks LP), by a representative of Communities and Coal, at the Port Metro Vancouver Annual General Meeting on June 2, 2015. Please see Appendix F for the petition.

Port Metro Vancouver is leading the First Nations, local government and agency consultation for FSD’s application. Port Metro Vancouver will consider First Nations, local government and agency input along with feedback from the Round 2 Public Consultation period, and further technical information, as part of its consideration to amend FSD’s existing project permit.
3. Results
The following provides a summary of the key themes from submissions received from online Feedback Forms, written submissions (emails and letters), and the small group meetings during the public consultation period from July 17 to August 21, 2015. As much as possible, the language expressed by respondents has been retained in the key themes.

3.1 Key Themes – Feedback Form and Written Submissions
The results received through the online Feedback Form and written submissions are categorized according to theme and frequency. This summary of key themes reflects the comments provided by respondents.

The following does not included key themes from the form letter received from residents of the United States. The U.S. key themes are summarized separately on page 10.

FSD will respond to the comments provided by respondents through a consideration memo, which will be posted online at www.fsd.bc.ca/amendment in September 2015.

Note: The number of comments may exceed the total commenting, as respondents may have commented on more than one topic.

Respondents provided the following comments expressing opposition to the project:

- Respondents expressed general opposition to building a coal port on the Fraser River. (1356)
- Respondents expressed concerns regarding the coal industry, including the impacts of mining, transferring, and burning of coal and that the coal industry is in decline. (612)
- Respondents commented that the approval process is not credible, that PMV is biased, feedback should not be sent to the proponent and that the amendment needed an independent third-party review. (570)
- Respondents stated that the region is assuming all the risk with little economic benefit and the proponent is only building the project for profit. (455)
- Respondents expressed concerns that burning fossil fuels is leading to global warming. (337)
- Respondents said there is a need for provincial and federal governments to invest in alternative technologies or renewable energy. (324)
- Respondents stated that there had been no public hearings or meaningful consideration of public input in permitting decisions. (295)
- Respondents stated concerns regarding the use of barges, and that there has not been an assessment done on the impacts along the proposed barge route to Texada Island. (258)
• Respondents stated opposition to Canadian ports exporting U.S. thermal coal and stated that several proposals to ship coal from ports along the U.S. west coast have been met with resistance. (227)

• Respondents opposed to the use of ocean-going vessels at a port on the Fraser River. (4)

Respondents provided the following comments regarding studies for the project:

• Respondents said that there is a need for a full Health Impact Assessment. (392)

• Respondents stated that there was no consideration of the cumulative impacts of shipping traffic from multiple existing and proposed export projects. (249)

• Respondents expressed concerns regarding the Environmental Impact Assessment including that it does not consider cumulative environmental impacts, that it should include impacts along the entire shipping route, that the Environment Management Plan and Water Management Plan need to be expanded, and that there needs to be more studies to consider the impacts to marine habitats. (111)

• Respondents commented that there needed to be additional studies on the impacts from the facility. (24)

• Respondents expressed concerns regarding the Human Health Risk Assessment including that it does not review cumulative health risks of industry in the area, the scope is too narrow, and it needs to be conducted by an independent third party. (21)

• Respondents stated that the Spill Response Plan is not comprehensive and is unable to mitigate spills. (11)

• Respondents expressed concerns regarding the Air Quality Assessment, including that it is flawed and that it needs a larger scope to address impacts along the entire rail and shipping route. (6)

Respondents provided the following comments expressing concern for the impacts from the project:

• Respondents expressed concerns about the environmental impacts that exporting coal along the Fraser River would have on marine habitats, wildlife (salmon, orcas and other whale populations) and the coastline, including the increased risk of spills, pollution and shipping traffic. (829)

• Respondents expressed concerns about the long-term health impacts of coal and stated that residents must protect the local area for present and future generations. (552)

• Respondents stated that the air quality in the region is getting worse. (175)
• Respondents expressed concerns about the impacts of coal dust to the air quality and health of residents in the region, specifically children, and expressed concerns about the impacts of coal, including cancer, asthma and allergies. (139)

• Respondents commented on the impacts of increased marine and rail traffic. (83)

• Respondents expressed concerns about the development of a new coal port and that the increase in coal dust could have a negative impact on property values in the surrounding communities, including New Westminster, Surrey and Delta, and other general negative impacts to these communities. (76)

• Respondents expressed concerns regarding the removal of the George Massey Tunnel and stated that it would lead to more dredging on the Fraser River. (22)

Respondents provided the following comments related to the review and consultation process for the project:

• Respondents commented that B.C. needs to have a say in the approval of a new coal facility including that local governments should be part of the approval process and that the process is undemocratic. (468)

• Respondents were concerned that health officers are not part of the approval process and stated they need to review the studies before a new coal port is built. (12)
Form letter received from residents of the United States regarding Fraser Surrey Docks application to amend Permit No. 2012 – 072

- Expressed opposition to the construction of any coal facility on the banks of the Fraser River.

- Expressed concern that the proposal would increase open-car coal train traffic through residential communities, increasing residents’ exposure to diesel exhaust (a known carcinogen), coal dust, nighttime noise and damaging vibration from heavy coal trains.

- Expressed concern that the coal exported from Fraser Surrey Docks would result in global warming.

- Commented that the proposal would increase freighter traffic in the Salish Sea, increase the risk of oil spills and shipping accidents, and increase impacts on wild salmon and endangered orca populations.

- Requested that full public hearings, an independent health impact assessment (HIA) and that a fully-scoped environmental assessment be conducted before any approvals are granted for the project.

- Stated that the lack of meaningful consultation with the public, local and regional governments and health authorities has been an issue of ongoing concern during the review of the project.

- Commented that the removal of the George Massey Tunnel would result in deeper dredging of the Fraser River allowing larger draft vessels to reach the facility and a greater volume of coal to be exported.

- Stated that there is no future in exporting thermal coal.

A copy of the form letter from residents of the United States is available in Appendix E.
3.2 Key Themes – Small Group Meetings

Two small group meetings were held in Surrey on July 29 and July 30, 2015. The small group meetings were open to members of the public and advertised as part of the notification outlined in section 2.2.

Meeting attendees included residents from Surrey and New Westminster and representatives from local and regional government, health authorities, community groups and industry. Representatives of FSD attended the meetings, along with a facilitator and meeting recorder from Kirk & Co. A representative from Port Metro Vancouver attended and observed the meetings. Participants were provided with the Discussion Guide and Feedback Form, and display boards were also set up at the meetings to provide an additional opportunity to review the materials.

Representatives of FSD provided information about the application for an amendment, focusing on the proposed changes to the design and on the results of the studies associated with the amendment. Participants were invited to ask questions and provide feedback during the meetings.

The following are the key themes from the small group meetings. As much as possible, the language expressed by participants has been retained.

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Key Themes</th>
</tr>
</thead>
</table>
| **July 29, 2015, 1:00 p.m. – 3:00 p.m.** Sheraton Vancouver Guildford Hotel Surrey, B.C. | • Participants sought clarification regarding the changes to the project as a result of the application, including whether FSD would be using ocean-going vessels (OGVs) exclusively or if bargeing would be retained as a secondary option.  
  • Participants were interested in the use of Panamax-sized vessels, asking for clarification about the potential need for additional dredging of the Fraser River following the removal of the George Massey Tunnel, and whether OGVs would be topped up with coal at another location prior to departing for Asia.  
  • Participants asked whether the facility would have shore power capability or whether FSD would plan to install shore power in the future.  
  • Participants were concerned about impacts of construction and operations, including increased noise from queuing of rail cars, stockpiling of coal on the site, and decreases in property values.  
  • Participants asked about the wastewater system at the facility, including whether storm water would be released into the Fraser River, if there was on-site storage for wastewater, and whether Metro Vancouver had the capacity to deal with the waste water discharge from the facility.  
  • Participants asked if the Air Quality Assessment accounted for multiple shipping scenarios, including a scenario where FSD moved coal by barge and OGV. They were also interested in the contents of the Air Quality Management Plan and if a draft would be made available for review and comment. |
### Meeting  
**July 30, 2015,**  
6:00 p.m. – 8:00 p.m.  
SFU Surrey  
Surrey, B.C.

<table>
<thead>
<tr>
<th>Key Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Participants stated that Port Metro Vancouver should be running the public consultation rather than FSD, to ensure a third-party, arms-length oversight for the consultation process.</td>
</tr>
<tr>
<td>- A participant noted that they had witnessed an increase in noise over the past few years and were concerned with further increases as a result of the project. They noted a concern regarding a decrease in their property value as a result of increased industrial activity.</td>
</tr>
<tr>
<td>- Participants sought clarification about the transport of coal from the mine site to the terminal by rail, expressing concerns about impacts of coal dust on communities such as White Rock. Participants expressed concern that, even with spraying, and a covered direct transfer process, coal dust would be created at some point during transport.</td>
</tr>
<tr>
<td>- Participants noted that while they did not agree with the movement of coal through Fraser Surrey Docks, that the proposed amendment and shipment of coal in closed OGVs would be better than the existing plan to ship coal by uncovered barges.</td>
</tr>
<tr>
<td>- Participants questioned whether Canada should be shipping coal and FSD’s role in its export. A participant noted that while they understood that FSD had a business to run, that it should look at whether coal should be used elsewhere in the world.</td>
</tr>
<tr>
<td>- Participants asked who was responsible in case of a fuel spill in the Fraser River, and where the closest Coast Guard station was located.</td>
</tr>
<tr>
<td>- Participants asked whether FSD had studied the cumulative environmental and traffic effects of existing and proposed industrial activity in Metro Vancouver.</td>
</tr>
</tbody>
</table>
Consultation Summary Report
Appendix A
Discussion Guide and Feedback Form
Round 2 Public Consultation
Application to Amend Permit No. 2012 – 072
Direct Transfer Coal Facility
July 17 – August 21, 2015
Discussion Guide and Feedback Form
Application to Amend Permit No. 2012 – 072
Direct Transfer Coal Facility

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

FSD has submitted an application to Port Metro Vancouver to amend its existing permit. This application has been made following an initial public comment period (May 4 – May 19, 2015) that was undertaken by FSD regarding the scope of studies that have been completed as part of the amendment application.

The proposed amendment to the project permit would allow FSD to load coal directly from the facility to ocean-going vessels (OGVs). Using OGVs would eliminate or reduce the number of barges required to transport coal. The proposed amendment to the existing permit would have no impact on the volume of coal permitted to be shipped through FSD (4 million metric tonnes per year).

Discussion Guide and Feedback Form

This Discussion Guide and Feedback Form are available online at www.fsd.bc.ca/amendment.

This Discussion Guide outlines aspects of the existing permit that FSD has applied to amend, and seeks feedback on the proposed changes to the design and on the results of the studies associated with the amendment to Permit No. 2012 – 072.

How Can I Provide Feedback?
- Submit your Feedback Form:
  - Online
  - By email
  - By mail
- Provide a written submission
- Register to attend a small group meeting
  - RSVP by telephone or email

Contact Information
- **Web:** www.fsd.bc.ca/amendment
- **Email:** amendment@fsd.bc.ca
- **Telephone:** 604-891-1695
- **Mail:** PO Box 2233 Vancouver Main, Vancouver, BC V6B 3W2

Reporting
- Community and stakeholder feedback will be summarized and posted online at www.fsd.bc.ca/amendment.
Round 2 Public Consultation:
Application to Amend Permit No. 2012 – 072
July 17 – August 21, 2015

Round 2 Public Consultation outlines aspects of the existing permit that FSD has applied to amend, and seeks comments regarding the proposed changes to the design and on the results of the studies associated with the amendment to the existing permit.

Round 2 Public Consultation includes a five-week consultation period with a Discussion Guide and Feedback Form, the opportunity to provide written submissions, and small group meetings.

Small Group Meetings

Meetings will be held with stakeholders to gather feedback on the proposed changes and the results of studies associated with the amendment.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, July 29</td>
<td>1:00 p.m. – 3:00 p.m.</td>
<td>Sheraton Guildford Hotel 15269 104 Ave, Surrey, B.C.</td>
</tr>
<tr>
<td>Thursday, July 30</td>
<td>6:00 p.m. – 8:00 p.m.</td>
<td>Simon Fraser University, Surrey Campus 250-13450 102 Ave, Surrey, B.C.</td>
</tr>
</tbody>
</table>

Port Metro Vancouver is reviewing FSD’s application to amend its existing permit, along with feedback from the Round 2 Public Consultation period, and further technical information, as part of its consideration to amend FSD’s existing permit.

Project Timeline

- FSD Application to Port Metro Vancouver for Project Permit
- 2 Rounds of Consultation
- Project Permit No. 2012 – 072 Granted by Port Metro Vancouver August 21, 2014
- Round 1 Public Comment Period (Consideration of Amendment) May 4 – 19, 2015
- FSD Amendment Application Submitted to Port Metro Vancouver June 19, 2015
- Round 2 Public Consultation (Amendment Application) July 17 – August 21, 2015
- Port Metro Vancouver Internal Review and Consideration of Public Consultation Feedback
- Port Metro Vancouver Decision on FSD Amendment Application
Round 1 Public Comment Period (Complete):
Consideration to Amend Permit No. 2012 – 072
May 4 – May 19, 2015

FSD held a public comment period (May 4 – 19, 2015) regarding its consideration to apply for an amendment. The public comment period provided an opportunity for the public and stakeholders to review the proposed changes to the existing permit and to comment on the proposed scope of the studies associated with the amendment.


The input received during the public comment period was summarized in a Consultation Summary Report and was considered by FSD, along with information provided by subject-matter experts, as part of the application for an amendment. A Consideration Memo that demonstrates how FSD considered the input is available, along with the Consultation Summary Report, at www.fsd.bc.ca/amendment.

Port Metro Vancouver Permit Process – Direct Transfer Coal Facility

Port Metro Vancouver is the permitting authority for the Direct Transfer Coal Facility, and on August 21, 2014, Port Metro Vancouver issued a project permit to Fraser Surrey Docks LP for the development of the facility to handle up to 4 million metric tonnes of coal per year. The permitting process for the original project permit considered environmental and technical information, as well as First Nations, municipal, agency and community input. In completing its federal environmental review, and per Section 67 of the Canadian Environmental Assessment Act, 2012, Port Metro Vancouver considered the information and the proposed mitigation measures provided by FSD, along with other relevant information.

In the original permit application, Port Metro Vancouver concluded that, with the implementation of proposed mitigation measures and subject to the conditions of the permit, the project is not likely to cause significant adverse environmental effects.

Moving Coal Through Port Metro Vancouver

38 MMT* of coal are currently transported through terminals in Port Metro Vancouver's jurisdiction annually. Fraser Surrey Docks has been permitted to handle 4 MMT, following a thorough review process.

- Volume currently shipped through Port Metro Vancouver
- Volume to be shipped through Fraser Surrey Docks

* Million Metric Tonnes


38 MMT of coal are currently transported through terminals in Port Metro Vancouver’s jurisdiction annually. Fraser Surrey Docks has been permitted to handle 4 MMT, following a thorough review process.
Overview of the Proposed Amendment

Application to Amend Permit No. 2012 – 072 Direct Transfer Coal Facility

The following outlines the changes to the project that would be made if the amendment is granted:

- The current size and height of the marine vessel loader would be increased (up to a maximum height of 36.2 metres), allowing for direct loading to OGVs.
- The use of OGVs would replace most or all barges. If approved, FSD expects to replace all 640 barges with 80 Panamax class OGVs, but would retain barging as a potential secondary option.
- It is anticipated that the use of OGVs would further mitigate the potential for dust, as coal would be transported in a closed hatch on OGVs.
- The conveyance system, rail receiving building, receiving pit and rail tracks would be shifted on-site to accommodate the larger marine vessel loader.
- The footprint of the facility area would decrease by approximately 10–15%, which would reduce the amount of rainwater runoff collected.

The following are potential shipping scenarios based on 4 million metric tonnes per year:

<table>
<thead>
<tr>
<th>Potential Shipping Scenarios</th>
<th>Loaded Trains / Year</th>
<th>Loaded OGVs / Year*</th>
<th>Loaded Barges / Year*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current permit approval</td>
<td>320</td>
<td>0</td>
<td>640</td>
</tr>
<tr>
<td>25% shift to OGVs (with amendment)</td>
<td>320</td>
<td>20</td>
<td>480</td>
</tr>
<tr>
<td>50% shift to OGVs (with amendment)</td>
<td>320</td>
<td>40</td>
<td>320</td>
</tr>
<tr>
<td>75% shift to OGVs (with amendment)</td>
<td>320</td>
<td>60</td>
<td>160</td>
</tr>
<tr>
<td>100% shift to OGVs (with amendment)</td>
<td>320</td>
<td>80</td>
<td>0</td>
</tr>
</tbody>
</table>

*Numbers represent return-trip vessel movements.
Modifications to Original Project Design

Primary changes associated with the proposed amendment would be as follows:

<table>
<thead>
<tr>
<th>Project Features</th>
<th>Approved Permit</th>
<th>Proposed Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of coal shipped</td>
<td>4 million metric tonnes / year</td>
<td>No change</td>
</tr>
<tr>
<td>Mode of shipping</td>
<td>640 barge return trips / year (1,280 barge movements)</td>
<td>Use of 80 Panamax class ocean-going vessels (OGVs) to replace 640 barges</td>
</tr>
<tr>
<td>Dust mitigation</td>
<td>Dust mitigation measures meet regulatory standards</td>
<td>Additional dust mitigation through use of closed hatches on OGVs and spraying of empty outbound railcars</td>
</tr>
<tr>
<td>Jobs</td>
<td>Estimated 20–25 full-time jobs</td>
<td>An increase of up to 20 additional full-time jobs (up to a total of 40–45 full-time jobs), due to extra shifts required to load OGVs (based on 100% shift to OGVs)</td>
</tr>
<tr>
<td>Marine vessel loader</td>
<td>14.3 metre (m) outreach (length of boom) from the edge of the berth and a maximum height of 15.0 m</td>
<td>27.4 m outreach from the edge of the berth and a maximum height of 36.2 m</td>
</tr>
<tr>
<td>Wastewater settling basins</td>
<td>A two-stage primary and a secondary settling basin with an approximate capacity of 300 m³</td>
<td>Settling basins shifted 37 m west and rotated 90 degrees counterclockwise Capacity of settling basins stays the same Also included is a 560,000-litre tank for contingency storage purposes for storm events Basins would reside under the out feed conveyor for more effective use of space and water management practices</td>
</tr>
<tr>
<td>Rail receiving building and receiving pit</td>
<td>A soft-sided fabric building spanning 17 m in length; bottom discharge pit with 125-tonne surge bin</td>
<td>A metal sided building; shifted 12 m east and 16 m south Rail receiving building and pit dimensions stay the same</td>
</tr>
<tr>
<td>Overall water catchment area (facility footprint)</td>
<td>5,340 m²</td>
<td>Decreased to 3,680 m² Estimated to reduce water runoff by 10–15%</td>
</tr>
<tr>
<td>Rail tracks</td>
<td>Relocation of the front gate</td>
<td>Removal of Shed 4 Adjustments to the rail loop No relocation of the front gate</td>
</tr>
</tbody>
</table>
Fraser Surrey Docks
Existing Facility

Proposed Design
Project Rendering

Location of proposed facility

1 Marine vessel loader
2 Wastewater settling basins
3 Rail receiving building
Direct Transfer Process

Up to 2 trains can be accommodated on-site at one time, and coal would remain undisturbed in railcars until it is ready to be transferred.

1. Train arrives in yard
2. Coal is directly transferred into rail receiving building and covered receiving pit*
3. Coal is directly transferred onto covered conveyor
4. Coal is directly loaded into hatch of ocean-going vessel

*There will be no stockpiles on-site.
Mitigation Measures for the Proposed Amendment

Mitigation measures have been identified and updated in consideration of the amendment, including the following areas:

- Dust
- Noise
- Marine Emergency Response
- Spills

Most mitigation measures proposed in the original application would remain applicable under the proposed amendment. The following is a summary of updated mitigation measures associated with the proposed amendment for the areas identified above:

a) Dust mitigation – updated mitigation measures include:
   - Construction:
     - Visual site inspections when conditions are dry
     - Minimizing exposure time of unpaved surfaces
     - Covering stockpiled soils
     - Modification or reduction of activities that contribute to track-out of soil
   - Rail transit:
     - Spraying of empty outbound railcars with veneer suppressant
     - Note: The respray facility is now in operation in Pasco, Washington, for applying additional suppressant prior to arrival at FSD
   - Receiving and conveyance:
     - Use of wet dust suppressant for unloading and material transfer points
   - Loading:
     - Better control of drop height, due to vessel ballast
     - The containment of coal on covered conveyors, from the receiving pit and into the hatches of OGVs
     - A reduced need for water suppression system during loading (not required for loading to OGVs as opposed to barges)
   - OGV transit:
     - Containment of coal inside the hold of OGVs, which would be covered with a hatch

b) Noise mitigation – updated mitigation measures include:
   - Most construction activities will take place between 7:00 a.m. and 7:00 p.m. to minimize potential impacts to neighbouring communities. This timing is consistent with City of Surrey and Corporation of Delta noise bylaws
   - FSD will ensure appropriate communication is provided to residents for any planned construction work outside of noise bylaws

c) Marine emergency response – updated mitigation measures include:
   - Fewer overall vessel movements associated with the use of OGVs, which would result in a reduced probability of project-related marine incidents
   - Use of Canadian pilots for FSD-bound vessels

d) Spill mitigation – updated mitigation measures include:
   - An updated Spill Response Plan with respect to changes to the project, bringing all aspects to relevance for the proposed amendment, including the following protocols:
     - Immediate notification of necessary FSD personnel and external parties
     - First response and containment of coal and liquid spills
     - Spill cleanup and reporting
   - Reporting the spill to proper authorities per the process established in the Spill Response Plan
A detailed Mitigations Summary Table can be found in FSD’s application package at www.fsd.bc.ca/amendment.

Based on these mitigation measures and the findings of the studies undertaken, FSD has concluded that the proposed amendment to the project permit may result in:

• Improved measures to control coal dust during loading and vessel transit, due to the closed hatch on vessels versus open barges.

• A reduction in the volume of water needed for dust suppression, and requiring treatment and discharge.

• A reduction in marine vessel movements on the Fraser River. The amendment would result in 80 annual OGV round trips, compared to 640 annual tug-and-barge round trips for the same total volume (4 MMT) to be shipped annually.

• More effective control and management of marine vessel movements during fisheries openings, due to the reduced number of vessel movements along the river.

• A reduction in the number of idling tugs at FSD or along the Fraser River, compared to the shipping scenario for the existing permit.

In addition, an Air Quality Management Plan would be developed prior to operation, and would include air monitoring to validate the results of the Addendums to the Air Quality Assessment and the Human Health Risk Assessment.
Updated Studies

Fraser Surrey Docks LP (FSD) has worked with subject-matter experts to review the studies that were undertaken for the existing permit.

The intention of this review was to identify and analyze any potential impacts associated with the proposed amendment. Addendums or updates to the following studies have been completed based on changes that would result from the proposed amendment.

1. Human Health Risk Assessment (HHRA) – SNC-Lavalin Inc. (Environment & Water)
   • Addendum Report to the Human Health Risk Assessment
2. Environmental Impact Assessment (EIA) – SNC-Lavalin Inc. (Environment & Water)
   • Addendum to the Environmental Impact Assessment
3. Air Quality Assessment (AQA) – Levelton Consultants Ltd.
   • Air Quality Assessment Addendum
4. Marine Risk Assessment – DNV (Det Norske Veritas)
   • Risk Assessment Update
5. Environmental Management Plan (EMP) – Soleil Environmental Consultants Ltd.
   • Summary of Changes to Environmental Management Plan
   • Water Management Plan Addendum
7. Fire Life Safety Plan – Hatch Mott MacDonald
   • Direct Transfer Coal Facility Fire Life Safety Plan
8. Spill Response Plan – Fraser Surrey Docks LP
   • Direct Transfer Coal Facility Spill Response Plan

The updated studies, as listed above, are being reviewed by Port Metro Vancouver as part of FSD’s application to amend the existing permit.
1. Human Health Risk Assessment (HHRA) – SNC-Lavalin Inc. (Environment & Water)

**Assessment Highlights**

The proposed amendment does not change the conclusions as presented in the 2014 HHRA.

Based the conservative approach used, the results indicate that the project, with the proposed amendment, is safe for people in the area.

**Overview**

A Human Health Risk Assessment (2014) was undertaken for the original project design.

In consideration of the proposed amendment, SNC-Lavalin Inc. (SNC-Lavalin) completed a review of the HHRA to determine the potential impacts of the proposed amendment, and provided an Addendum Report to the Human Health Risk Assessment (2015).

The results noted in the Addendum Report to the Human Health Risk Assessment (2015) are, in part, based on the results of the Air Quality Assessment (AQA) Addendum (2015) conducted by Levelton Consultants Ltd. for the proposed amendment.

**Scope of Assessment**

SNC-Lavalin’s scope of work included:

- A review of the changes to the project associated with the proposed amendment;
- A review of the extent to which the HHRA accurately estimates human health risks, taking into account the changes to the project associated with the proposed amendment;
- A description and discussion of the changes to the project associated with the proposed amendment that are material to the HHRA; and,
- A review and analysis of the extent to which mitigation measures should be updated, where applicable.

**Key Findings**

SNC-Lavalin concluded that the proposed amendment does not change the conclusions as presented in the 2014 HHRA. A conservative approach was used and the results indicate that the proposed amendment is safe for people in the area (residents, commercial workers, urban park users, agricultural receptors), including people living and working in the area surrounding the facility.

This updated study is applicable for the proposed change from barges to OGVs.

**Mitigation Measures**

An Air Quality Management Plan would be developed prior to operation, and would include air monitoring to validate the results of the Addendums to the AQA and the HHRA.
2. Environmental Impact Assessment (EIA) – SNC-Lavalin Inc. (Environment & Water)

**Overview**

An Environmental Impact Assessment (2013) was undertaken for the original project design.

In consideration of the proposed amendment, SNC-Lavalin undertook a review of the EIA to update the environmental impacts and proposed mitigation measures associated with loading coal directly to ocean-going vessels (OGVs), as opposed to barges, and provided an Addendum to the Environmental Impact Assessment (2015). The results of SNC-Lavalin’s review have been noted and are summarized below.

**Scope of Assessment**

SNC-Lavalin’s scope of work included:

- Review of changes to the project associated with the proposed amendment;
- Review of environmental regulations that may apply to the amendment and/or vessel size;
- Discussion on the extent to which the EIA adequately describes the potential environmental impacts, taking into account the proposed project changes; and
- Discussion of the extent to which the potential impacts should be reconsidered or reassessed, where applicable.

**Key Findings**

SNC-Lavalin concluded that the environmental effects and proposed mitigation measures identified within the EIA are adequate to address the project changes and, therefore, the proposed amendment results in no change to the overall conclusion of the EIA (2013). There is no change to the volume of coal permitted to be shipped through FSD (4 million metric tonnes per year) and, therefore, the change from barges to OGVs will reduce the number of vessel movements on the Fraser River, reducing the potential for environmental risks. Furthermore, the closed hatch containment on OGVs is expected to reduce dust during transit and loading at the facility.

SNC-Lavalin concluded that the project, with the amendment, is not likely to cause significant adverse environmental, socio-economic or health effects, taking into account the implementation of appropriate mitigation management measures, as identified in the EIA (2013) and in the EIA Addendum (2015).

This updated study is applicable for the proposed change from barges to OGVs.

**Mitigation Measures**

SNC-Lavalin determined that the mitigation measures proposed in the original EIA are applicable and relevant to the proposed project changes.
Overview

An Air Quality Assessment (2014) was undertaken by Levelton Consultants Ltd. (Levelton) for the original project design.

In consideration of the proposed amendment, Levelton conducted a review of the AQA (2014) to evaluate the incremental impacts from the proposed project changes.

The cumulative maximum predicted air quality impacts were determined using a combination of a conservative emission scenario (e.g., in terms of simultaneously operating emission sources at maximum throughput), the meteorology that leads to the highest predicted result, and historical ambient air contaminant concentrations as background.

Scope of Assessment

Levelton’s scope of work included:

1. A description and discussion of the refinements to the project associated with the proposed amendment that are material to the AQA; and,

2. A review and analysis of the extent to which the potential impacts should be updated, including changes to the assessment methodology, where applicable.

Key Findings

Levelton has drawn the following conclusions, which are consistent with the conclusions drawn in the original AQA:

1. Predicted air quality impacts, including ambient background at sensitive receptors and within residential neighbourhoods in the vicinity of FSD, are generally low and remain below all ambient air quality objectives.

2. The predicted air contaminant concentrations quickly diminish as emissions disperse further away from FSD’s facility.

3. All maximum predicted concentrations are on FSD’s facility fenceline and are not near residential or populated areas.

4. For all air contaminants and averaging periods, there were no predicted exceedances of the ambient air quality objectives with ambient background added, with the exception of predicted annual nitrogen dioxide (NO$_2$) located immediately to the west and on the FSD fenceline over the Fraser River, which is consistent with the results of the 2014 AQA.

5. Predicted annual NO$_2$ exceedances with ambient background added are located immediately to the west of the modelled facility fenceline and on the fenceline over the Fraser River. This is an area where the tugs and vessels operate, and public access is generally limited or controlled due to terminal marine operations.

6. The magnitude of the maximum predicted annual NO$_2$ exceedance is reduced slightly from the 2014 AQA; and,

7. Maximum predicted impacts from fugitive coal dust have decreased from the original AQA.

This updated study is applicable for the proposed change from barges to OGVs.

Mitigation Measures

Levelton noted that the planned project and operational mitigation measures will assist in the management and mitigation of combustion and fugitive dust emissions from the project and from agricultural goods operations.
4. Marine Risk Assessment – DNV (Det Norske Veritas)

**Assessment Highlights**

*While the original Risk Assessment Study (2012) remains relevant, the probability of marine incidents is reduced with the proposed amendment due to the reduced number of vessel movements on the Fraser River.*

*The proposed coal export operations are acceptable according to the risk acceptance criteria used in the Risk Assessment Update.*

*All the risks assessed in the original Risk Assessment Study (2012) are considered acceptable, although low-cost risk reduction measures should still be considered for implementation.*

**Overview**

A Risk Assessment Study (2012) was undertaken for the original project design prior to the approval of the existing permit by Port Metro Vancouver on August 21, 2014.

In consideration of the proposed amendment, DNV (Det Norske Veritas) undertook a review of the Risk Assessment Study (2012) to review the marine vessel movement and navigation risks associated with the transit of 80 Panamax class vessels, as opposed to 640 barges. The results are outlined in a Risk Assessment Update (2015) and are summarized below.

**Scope of Assessment**

DNV’s scope of work included:

- An update to the potential vessel accident frequency, consequence and risk from the previous projected activity of 640 barge movements to 80 OGV movements, and a range of scenarios in-between;
- A linear adjustment of the accident frequency, based on the updated number of vessel movements; and,
- An update to the marine risk assessment based on the updated frequency of OGVs compared to barges.

**Key Findings**

In review of the Risk Assessment Study (2012), DNV noted that the study area remains relevant, due to the fact that the only parameter that has changed is the number of study vessels transiting the Fraser River.

In the Risk Assessment Update (2015), DNV concluded that all the risks assessed (including collision, structural failure/foundering, fire/explosion, powered grounding, drift grounding, impact at FSD, striking at FSD) in the original Risk Assessment Study (2012) are acceptable, although low-cost risk reduction measures should still be considered for implementation.

DNV found that, while the original Risk Assessment Study (2012) remains relevant, the probability of marine incidents is reduced with the proposed amendment due to the reduced number of vessel movements on the Fraser River. The Risk Assessment Update (2015) concluded that the proposed coal export operations are acceptable according to the risk acceptance criteria in the applied risk matrix.

This updated study is applicable for the proposed change from barges to OGVs.

**Mitigation Measures**

DNV determined possible risk reduction measures, including:

- All operational vessels will be inspected at regular intervals to ensure they meet Transport Canada regulations;
- Operations will not be conducted in high wind conditions, in order to lessen the chances of an accident;
- All nighttime operations will follow mandatory lighting and manning requirements;
- Vessels will be required to conduct pre-arrival tests and inspections on critical systems before entering or operating in more restrictive waters in the study area;
- Canadian pilotage (Pacific Pilotage Authority) will be required for FSD-bound vessels; and,
- A strong safety culture with management system support will be maintained.
5. Environmental Management Plan (EMP) – Soleil Environmental Consultants Ltd.

Assessment Highlights

The construction methods and mitigation measures have not changed substantially, and the preliminary Construction Environmental Management Plan (CEMP) prepared for the project still provides a suitable framework for mitigating impacts from construction activities.

The project, with the amendment, will not change the proposed construction techniques or the mitigation measures associated with construction activities.

The project, with the amendment, would change the project footprint, resulting in a reduced impact on local drainages.

Key Findings

In their review of the EMP, Soleil found that the proposed amendment has changed the project footprint, resulting in a reduced impact on local drainages. Soleil determined that the proposed amendment will not change the proposed construction techniques or the mitigation measures associated with construction activities.

Soleil concluded that the construction methods and mitigation measures have not changed substantially, and that these changes are not specifically related to the proposed amendment.

This updated plan is applicable for the proposed change from barges to OGVs.

Mitigation Measures

Soleil determined that the preliminary CEMP prepared for the project, and included as part of the Environmental Impact Assessment (SNC-Lavalin, 2013), still provides a suitable framework for mitigating potential impacts from construction activities.

Overview

An Environmental Management Plan (2013) was undertaken for the original project design prior to the approval of the existing permit by Port Metro Vancouver on August 21, 2014.

In consideration of the proposed amendment, Soleil Environmental Consultants Ltd. (Soleil) undertook a review of the current EMP, including the Construction Environmental Management Plan (CEMP). The Summary of Changes to Environmental Management Plan (2015) was provided regarding changes resulting from the proposed amendment during project construction.

Scope of Assessment

Soleil’s scope of work included a review of the changes to the project associated with the proposed amendment, including excavation, sediment and erosion control, dewatering practices and the removal of Shed 4 on site.

Assessment Highlights

The containment area configuration has been changed, which has resulted in a slight decrease in the contained area from 5,340 m² to 3,680 m².

As hydraulic calculations are based upon the original area of 5,340 m², these calculations now serve as a conservative measure and, therefore, do not need to be revised.

Overview

A Water Management Plan (2014) was undertaken for the original project design prior to the approval of the existing permit by Port Metro Vancouver on August 21, 2014.

In consideration of the proposed amendment, Omni Engineering Inc. (Omni) undertook a review of the Water Management Plan to confirm the relevance of the water management systems in relation to the proposed project changes.

Scope of Assessment

Omni’s scope of work included a review of changes associated with the proposed amendment, including:

• Updated wastewater containment area and associated water volumes;
• Relocation and resizing of the wastewater settling capacities accordingly;
• Minor modification to the out feed conveyor spill trays; and,
• Vessel loading dust mitigation technology strategies.

Key Findings

Omni concluded that, since hydraulic calculations are based upon the original larger area of 5,340 m², these calculations now serve as a conservative measure and will not be revised. Omni concluded that the original Water Management Plan remains applicable to the proposed project changes.

In review of the Water Management Plan, Omni made the following changes:

• The containment area configuration has been changed, which has resulted in a slight decrease in the contained area from 5,340 m² to 3,680 m²; and,
• Section 2.10, Volumes of Discharge Water, has been updated to reflect the change in process area.

Mitigation Measures

Omni did not recommend any mitigation measures further to those provided in the original Water Management Plan (2014).
7. Fire Life Safety Plan – Hatch Mott MacDonald

Assessment Highlights

Hatch Mott MacDonald undertook a complete revision of the Fire Safety Plan (2012) for the proposed coal operations at FSD, taking into consideration the changes associated with the proposed amendment, and developed a Fire Life Safety Plan (2015).

The vessel and barge loading system has been designed to comply with the applicable standards and guidance.

The coal facility will comply with federal Occupational Health and Safety regulations.

Overview

A Fire Safety Plan (2012) was undertaken on the original project design prior to the approval of the existing permit by Port Metro Vancouver on August 21, 2014.

In consideration of the proposed amendment, Hatch Mott MacDonald (HMM) undertook a review of the Fire Safety Plan (2012) to confirm the relevance of the fire and safety management in relation to the change from barges to ocean-going vessels. Further to this, HMM conducted a full operational review to update the existing plan as a whole, bringing all aspects of the plan to relevance, and developed a Fire Life Safety Plan (2015). The plan specifies the fire safety provisions that will be implemented for the Direct Transfer Coal Facility.

Scope of Assessment

HMM’s scope of work included:

• A complete revision of the Fire Safety Plan (2012) for the proposed coal operations at FSD, taking into consideration the changes associated with the proposed amendment, including:
  • Planned revisions to the proposed operation (barge loader to marine vessel loader);
  • Revised operations of loading vessels;

• Summary of the requirements and regulatory frameworks for a coal handling facility;
• Description of the hazards and consequent risks; and,
• Detailing the planned design mitigation and operational controls contained within the design.

Key Findings

The vessel and barge loading system has been designed to comply with the applicable standards and guidance. Additionally, the coal facility will comply with federal Occupational Health and Safety regulations. These design features include: dust control, ignition control, fire detection and alarm, and firefighting systems. Other safety features of the plan include: operating procedures, maintenance management process, and planned inspections.

This updated plan is applicable for the proposed change from barges to OGVs.

Mitigation Measures

HMM identified the following additional measures to mitigate risks:

• The transfer design, skirting design, closed tail box, and deluge system will be designed to minimize the risk of spillage; and,
• All pulleys will be fitted with bearing temperature monitors.

Safeguards (signage, controlled access, and training) were reviewed as sufficient and reasonable to mitigate the presented risk.
8. Spill Response Plan – Fraser Surrey Docks LP

Overview

A Spill Response Plan (2013) for FSD’s terminal and FSD’s berth corridor was undertaken on the original project design prior to the approval of the existing permit by Port Metro Vancouver on August 21, 2014.

In consideration of the proposed amendment, FSD undertook an internal review of its existing Spill Response Plan to confirm the relevance of the plan in relation to the change from loading barges to loading ocean-going vessels.

Scope of Assessment

FSD’s scope of work included an internal review of the changes to the project associated with the proposed amendment and an update to the Spill Response Plan, bringing all aspects of the plan to relevance for the proposed amendment.

Key Findings

In reviewing the Spill Response Plan (2013) for the facility and berth corridor, Fraser Surrey Docks has updated the plan to include response procedures for coal and liquid spills to land and water, and the response of personnel of marine vessels berthed at FSD to assist in the event of a spill to water while berthed at FSD, as well as for cleanup and reporting of spills.

The updated Spill Response Plan (2015) outlines the procedures set in place to respond to a coal or liquid spill event at the Direct Transfer Coal Facility and the berths at FSD.

The plan has been put in place to:

- Minimize and/or eliminate the damage and danger that could affect employees, property and the environment in the event of a spill; and,
- Ensure an effective and coordinated response to a spill at FSD.

This updated plan is applicable for the proposed change from barges to OGVs.

Mitigation Measures

FSD has put in place measures to mitigate spills, including, but not limited to:

- Immediate notification of necessary FSD personnel and external parties.
- First response and spill containment of coal and liquid spills, including:
  - Prevention of the spill from entering sewer drains or contacting exposed soil;
  - Elimination of all ignition sources if flammable material is involved;
  - Stopping the spread of the spill with absorbents, sandbags, rubber drain covers, etc.;
  - Removal of injured personnel from the emergency area; and,
  - Stopping the source of the liquid release and the spread of the spill to the water by closing valves, standing drums upright, etc.
- Spill cleanup and reporting, including:
  - Use of the Material Safety Data Sheet to determine appropriate cleanup procedures for the material;
  - Storage of all contaminated material, such as chips, sand, sludge, etc. in marked drums pending disposal in accordance with environmental legislation; and,
  - Reporting the spill to proper authorities per the process established in the Spill Response Plan.

Assessment Highlights

This updated plan is applicable for the proposed change from barges to ocean-going vessels.

The updated plan includes response procedures for coal and liquid spills to land and water, and protocols for the response of marine vessel personnel to assist in the event of a spill to water while berthed at FSD, as well as for cleanup and reporting of spills.
Frequently Asked Questions (FAQs)

1. Why is Fraser Surrey Docks LP (FSD) building a Direct Transfer Coal Facility?
   - FSD is a major multi-purpose marine terminal that facilitates shipping of a variety of goods, including general cargo, steel, forest products and agricultural products.
   - FSD has been permitted to handle 4 million metric tonnes (MMT) of coal per year. Currently, 38 million metric tonnes of coal are transported through Port Metro Vancouver annually. FSD received its permit following a thorough review process (completed August 2014).

2. Why is FSD applying to amend its existing permit to build a Direct Transfer Coal Facility?
   - The proposed amendment would allow FSD to load coal directly from the facility to ocean-going vessels (OGVs), reducing the need for barges. OGVs have more capacity than barges. One loaded OGV can carry four trainloads and the same amount as eight loaded barges.
   - The amendment to the existing permit would have no impact on the volume of coal permitted to shipped through FSD (4 million metric tonnes per year).
   - Due to changes in commercial and market conditions, FSD anticipates shipping most or all of the permitted volume by OGVs. The use of OGVs would reduce the number of marine vessel movements.

3. Why did FSD decide to proceed with formal submission of a permit amendment application to Port Metro Vancouver?
   - The proposed amendment is expected to improve on FSD’s existing permit. FSD, along with subject-matter experts, reviewed the results of the updated studies and found that there were no adverse effects related to the amendment, and therefore is confident in proceeding to the next stage.
   - FSD will continue to consider and respond to public feedback on the proposed amendment. The Round 2 Public Consultation period has been increased from three weeks to four weeks, in response to requests for more time for public comment and consideration.

4. What changes would the proposed amendment include?
   - The proposed amendment would increase the current size and height of the marine vessel loader (to a maximum height of 36.2 metres), allowing for direct loading to OGVs.
   - Use of OGVs would replace most or all barges. If approved, FSD plans to replace all barges with Panamax class OGVs (80 OGVs vs 640 barges), but would retain barging as a potential secondary option.
   - It is anticipated that the use of OGVs would further mitigate the potential for fugitive dust, as coal would be transported in a closed hatch.
   - The conveyance system, receiving pit, and rail tracks would be shifted on-site to accommodate the larger vessel loader, and Shed 4 would be removed.
   - The footprint of the loading area would decrease, which is estimated to reduce water runoff.

5. Will this change the volume of coal that FSD is permitted to transport through the facility?
   - The proposed amendment to the permit would not have any impact on the amount of coal that FSD is permitted to transport through the facility. The existing permit is for 4 MMT of coal per year.

6. How would the proposed amendment change vessel movements on the Fraser River?
   - The proposed amendment would allow FSD to load coal directly from the facility to OGVs, reducing the use of barges and reducing the number of vessel movements from the original project permit. An OGV can carry the volume of four trainloads. In comparison, eight barges would be required to carry the same amount (1 OGV = 8 barges).
   - FSD anticipates shipping coal mostly or entirely by OGVs, while retaining barging as a secondary option.

7. What type of vessels would be used with the proposed amendment?
   - Any vessel accommodated at FSD would be in accordance with the current size limitations, and would be within PMV Navigational Channel Guidelines, for the Fraser River.
   - The proposed marine vessel loader would be able to accommodate Panamax class vessels that would not exceed an 11.5-metre draft when loaded.
8. **How many OGVs currently call at FSD per year?**

- FSD has handled up to 400 vessels and 76 thousand railcars per year. These numbers fluctuate based on market conditions.

9. **Why is it necessary for the height of the vessel loader to be increased?**

- OGVs sit higher in the water than barges, and the loader must be able to reach over the side of the vessel into the hatch. This height will allow the marine vessel loader the appropriate reach to load coal directly into the specific vessel hatch it is loading.

- The marine vessel loader would require a maximum height of 36.2 metres to load coal directly into OGVs. By comparison, the gantry cranes used to move containers on-site at FSD are 55 metres high with the boom down, and are 82 metres high with the boom up.

10. **What is being done to reduce coal dust from railcars?**

- The coal will be sprayed with a binding agent at the mine site during loading into railcars. Once the railcars are loaded, a dust suppressant is applied to the coal in each railcar. In addition, the rail carrier has constructed a respray station in Pasco, Washington, which will provide additional dust mitigation for coal shipments en route to FSD.

- In addition, it is proposed that dust suppressants be applied to empty railcars exiting the receiving building within the containment area and returning to the mine.

- Although FSD is not responsible for the movement of products by rail, we are working closely with the mines and our rail partners to ensure that dust mitigation strategies are consistently applied.

11. **Will FSD be keeping stockpiles of coal on-site?**

- There will be no stockpiles of coal on-site. The facility will continue to be a direct transfer from rail to ocean-going vessel.

- Coal would remain undisturbed in railcars until it is ready to be loaded to OGVs.

- 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 has experienced staff whose sole responsibility is to coordinate the arrival and departure times of railcars and vessels.

12. **How does this proposed amendment affect the studies that were completed for the original permit application?**

- The following studies (available at [www.fsd.bc.ca/amendment](http://www.fsd.bc.ca/amendment)) have been reviewed and updated as necessary, in most cases with an addendum to the original study:
  - Human Health Risk Assessment (HHRA) – SNC-Lavalin Inc. (Environment & Water)
  - Environmental Impact Assessment (EIA) – SNC-Lavalin Inc. (Environment & Water)
  - Air Quality Assessment (AQA) – Levelton Consultants Ltd.
  - Marine Risk Assessment – DNV (Det Norske Veritas)
  - Environmental Management Plan (EMP) – Soleil Environmental Consultants Ltd.
  - Water Management Plan – Omni Engineering Inc.
  - Fire Life Safety Plan – Hatch Mott MacDonald
  - Spill Response Plan – Fraser Surrey Docks LP

13. **What does this permit amendment application mean with respect to the recent wastewater permit application to Metro Vancouver?**

- The waste discharge permit application submitted to Metro Vancouver is for a maximum volume discharge rate of 5 litres per second of treated wastewater, and this would not change as a result of the amendment. Overall, FSD's treated wastewater would be approximately 9,000 tonnes of the 172 million tonnes of regional wastewater flowing through the Annacis Island facility every year, which includes a number of other industrial users undergoing similar treatment.

- Wastewater from the proposed facility would first be treated on-site and discharged directly to the Annacis Island Treatment Facility via Metro Vancouver’s North Surrey Interceptor Sewer, which runs directly under the FSD facility. As such, wastewater would be treated to meet or exceed Metro Vancouver’s rigorous standards protecting water quality.
Reference Documents
The following documents provided to Port Metro Vancouver as part of FSD’s application for an amendment are available at www.fsd.bc.ca/amendment:

- Application for an Amendment to Permit No. 2012 – 072 Direct Transfer Coal Facility (2015)
- Addendum to the Environmental Impact Assessment (EIA) (2015)
- Air Quality Assessment (AQA) Addendum (2015)
- Risk Assessment Update (2015)
- Summary of changes to the Environmental Management Plan (2015)
- Spill Response Plan (2015)

Consultation materials from Round 1 Public Comment Period:

- Discussion Guide and Feedback Form
- Frequently Asked Questions
- Consultation Summary Report
- Consideration Memo

The documents listed above, as well as supporting documents for the existing project permit and the public comment period, are available at www.fsd.bc.ca/amendment.
Feedback Form

We want to hear from you.

We would like your input regarding proposed changes to the project design and the results of studies associated with the application to amend Permit No. 2012 – 072.

Please complete the questions below or complete the online feedback form at [www.fsd.bc.ca/amendment](http://www.fsd.bc.ca/amendment).

1. **Use of ocean-going vessels**
   
   Please provide any comments you may have regarding the proposed change, from 640 barges to 80 ocean-going vessels, associated with the application to amend Permit No. 2012 – 072.

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2. Updated studies completed for the application to amend Permit No. 2012 – 072

Please provide any comments you may have regarding the results of the updated studies associated with the application to amend Permit No. 2012 – 072. An overview of the results can be found on pages 11–18 in this Discussion Guide and the associated documents can be found at www.fsd.bc.ca/amendment.
3. Please provide any additional comments you may have regarding the application to amend Permit No. 2012 – 072:
Please submit your feedback form by August 21, 2015.

Fraser Surrey Docks LP (FSD) will consider your input, along with information provided by subject-matter experts, as part of its application for an amendment to Permit No. 2012 – 072.

**Please provide your contact information (optional):**

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
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<tr>
<td>Organization (if applicable):</td>
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<td>Role (if applicable):</td>
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<td>Postal Code:</td>
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<tr>
<td>Email:</td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td></td>
</tr>
</tbody>
</table>

Any personal contact information you provide to Fraser Surrey Docks LP on this form is collected and protected in accordance with the Freedom of Information and Protection of Privacy Act. If you have any questions regarding the consideration to amend Permit No. 2012 – 072 Direct Transfer Coal Facility or Fraser Surrey Docks LP and/or the information collection undertaken on this form, please contact Fraser Surrey Docks LP at amendment@fsd.bc.ca.

The deadline to submit feedback is August 21, 2015

**You can return completed feedback forms:**

- **Online:** [www.fsd.bc.ca/amendment](http://www.fsd.bc.ca/amendment)
- **By email:** amendment@fsd.bc.ca
- **By mail:** PO Box 2233 Vancouver Main, Vancouver, BC V6B 3W2

**For general project information:**

- **Online:** [www.fsd.bc.ca/amendment](http://www.fsd.bc.ca/amendment)
- **Phone:** 604-891-1695
Consultation Summary Report
Appendix B
Notification
Round 2 Public Consultation
Application to Amend Permit No. 2012 – 072
Direct Transfer Coal Facility
July 17 – August 21, 2015

Fraser Surrey Docks LP (FSD) has applied to amend its existing permit from Port Metro Vancouver that gives it approval to build and operate a Direct Transfer Coal Facility within its existing lease area.

If the amendment is granted it would have no impact on the volume of coal permitted to be shipped through FSD. The proposed amendment would allow FSD to load coal directly from the facility to ocean-going vessels, eliminating or reducing the number of barges required.

For details on how to provide feedback on the proposed changes to the design and on the results of the studies associated with the proposed amendment, please visit www.fsd.bc.ca/amendment, and:

• Read the Discussion Guide and submit your Feedback Form:
  • Online
  • By email
  • By mail
• Provide a written submission
• Register by phone or email to attend a small group meeting (see details at www.fsd.bc.ca/amendment)

Fraser Surrey Docks LP (FSD) is the largest employer on the Fraser River waterfront, with more than 300 full-time employees. FSD has been a major employer and contributor to local communities for over 50 years, handling over 3 billion dollars’ worth of goods annually.
Round 2 Public Consultation, July 17 – August 21, 2015
Application to Amend Permit No. 2012 – 072. Direct Transfer Coal Facility
www.fsd.bc.ca/amendment
Amendment

Round 2 Public Consultation
Application to Amend Permit No. 2012 - 072 Direct Transfer Coal Facility

July 17 – August 21, 2015
Fraser Surrey Docks LP (FSD) has applied to amend its existing permit from Port Metro Vancouver that gives it approval to build and operate a Direct Transfer Coal Facility within its existing lease area. FSD’s decision to proceed with the amendment application followed a public comment period (May 4 to 19, 2015) and a technical review of the results of updated studies.

The proposed amendment would allow FSD to load coal directly from the facility to ocean-going vessels, which would eliminate or reduce the number of barges required. If the amendment is granted it would have no impact on the volume of coal permitted to be shipped through Fraser Surrey Docks.

Please read the discussion guide to review the changes to the existing permit for which FSD has applied and provide feedback on the proposed changes to the project design, as well as on the results of the studies associated with the proposed amendment.

How Can I Provide Feedback?
• Online
• By email
• By mail

Provide a written submission
Register by telephone or email to attend a small group meeting (see details below)

Correspondence and Inquiries
Phone: 604-891-1695
Email: amendment@fsd.bc.ca
Web: fsd.bc.ca/amendment
Mail: PO Box 2233 Vancouver Main, Vancouver, BC V6B 3W2

Small Group Meeting Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, July 29, 2015</td>
<td>1:00 p.m. – 3:00 p.m.</td>
<td>Sheraton Guildford Hotel 15269 104 Ave, Surrey, B.C.</td>
</tr>
<tr>
<td>Thursday, July 30, 2015</td>
<td>6:00 p.m. – 8:00 p.m.</td>
<td>Simon Fraser University, Surrey Campus 250-13450 102 Ave, Surrey, B.C.</td>
</tr>
</tbody>
</table>

Feedback Analysis and Reporting:
• Community and stakeholder feedback will be summarized and posted online at www.fsd.bc.ca/amendment

Reference Documents
Application for an Amendment to Permit No. 2012 - 072 Direct Transfer Coal Facility
Updated Studies

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

Round 1 Public Comment Period (May 4 – 19, 2015):

- Consultation Summary Report
- Consideration Memo

The following supporting documents for the original project permit are available:

Direct Transfer Coal Facility Project Application

- Human Health Risk Assessment (HHRA)
- Air Quality Assessment (AQA)
- Environmental Impact Assessment (EIA) (November 2013)
- Phase 1 Community Engagement Summary Report
- Phase 2 Engagement Summary Report
- Marine Risk Assessment
- Coal Transfer Facility Fire Safety Plan
- Preliminary Environmental Management Plan
- Air Dispersion Modelling Assessment
- Spill Response Plan
- Water Management Plan
Round 2 Public Consultation

Application to Amend Permit No. 2012 – 072 Direct Transfer Coal Facility

July 17 – August 21, 2015

Fraser Surrey Docks LP (FSD) has applied to amend its existing permit from Port Metro Vancouver (August 21, 2014) that gives it approval to build and operate a Direct Transfer Coal Facility within its existing lease area.

If the amendment is granted it would have no impact on the volume of coal permitted to be shipped through FSD.

The proposed amendment would allow FSD to load coal directly from the facility to ocean-going vessels, which would eliminate or reduce the number of barges required.

Please visit www.fsd.bc.ca/amendment to provide feedback on the proposed changes to the design, as well as the results of the studies associated with the amendment.
**How Can I Provide Feedback?**

- Read the Discussion Guide and submit your Feedback Form:
  - Online
  - By email
  - By mail
- Provide a written submission
- Register by phone or email to attend a small group meeting (details at www.fsd.bc.ca/amendment)

**Contact Information**

Phone: 604-891-1695  
Email: amendment@fsd.bc.ca  
Web: www.fsd.bc.ca/amendment  
Mail: PO Box 2233 Vancouver Main, Vancouver, BC V6B 3W2

**Feedback Analysis and Reporting**

- Community and stakeholder feedback will be summarized and posted online at www.fsd.bc.ca/amendment

---

**Fraser Surrey Docks LP (FSD)** is the largest employer on the Fraser River waterfront, with more than 300 full-time employees. FSD has been a major employer and contributor to local communities for over 50 years, handling over 3 billion dollars’ worth of goods annually.
Surrey, B.C. — Fraser Surrey Docks LP (FSD) has applied for an amendment to its existing permit from Port Metro Vancouver that gives it approval to build and operate a Direct Transfer Coal Facility within its existing lease area. FSD’s decision to proceed with the amendment application followed a public comment period (May 4 to 19, 2015) and a technical review of the results of updated studies.

On August 21, 2014, FSD was granted a permit by Port Metro Vancouver for a Direct Transfer Coal Facility, following a review process that included environment and human health studies undertaken by subject-matter experts, as well as two rounds of public consultation. The proposed amendment to the existing permit would allow FSD to load coal directly from the facility to ocean-going vessels, which would eliminate or reduce the number of barges required. If the amendment is granted it would have no impact on the volume of coal permitted to be shipped through FSD.

Input received during the May 2015 public comment period has been compiled in a Consultation Summary Report and FSD has also prepared a Consideration Memo, demonstrating how input received has been considered. These documents are available at www.fsd.bc.ca/amendment.

Round 2 Public Consultation July 17 – August 21, 2015
FSD is undertaking public consultation regarding the proposed amendment to its existing permit. FSD is seeking feedback on the proposed changes to the design as well as on the results of the studies associated with the amendment. A Discussion Guide and Feedback Form is available at www.fsd.bc.ca/amendment.

How Can I Provide Feedback?
Read the Discussion Guide and submit your feedback:
- Online: www.fsd.bc.ca/amendment
- Email: amendment@fsd.bc.ca
- Mail: PO Box 2233 Vancouver Main, Vancouver, BC V6B 3W2
- Phone: 604-891-1695
- Register by phone or email to attend a small group meeting (see details at www.fsd.bc.ca/amendment)

Fraser Surrey Docks LP
FSD is the largest employer on the Fraser River waterfront, with more than 300 full-time employees. FSD has been a major employer and contributor to local communities for over 50 years, handling over 3 billion dollars’ worth of goods annually. FSD has directly contributed over 280 million dollars to B.C. communities over the last 5 years through wages, taxes and buying local goods and services.

Contact
Jill Buchanan
Email: jillb@fsd.bc.ca
Phone: 604-582-2244
Fraser Surrey Docks LP
On the Fraser River waterfront since 1962

The largest modern, multi-purpose marine terminal on the West Coast of North America, handling a variety of cargo and commodities that are important to our economy and daily life, including:

- Agricultural products
- Forest products
- Building materials and machinery
- Consumer goods
- Food products

Since 1962
Major employer and contributor to local communities for more than 50 years

Largest employer on the Fraser River waterfront
300+ full-time employees

3 billion dollars’ worth of goods handled annually

Directly contributed over $280 million dollars to B.C. communities over the last 5 years
Direct Transfer Coal Facility

On August 21, 2014 Fraser Surrey Docks LP (FSD) was granted a permit by Port Metro Vancouver for a Direct Transfer Coal Facility to handle 4 million metric tonnes (MMT) of coal per year.

FSD has applied to amend its existing permit, which would allow FSD to load coal directly to ocean-going vessels (OGVs), eliminating or significantly reducing the number of barges required.

Moving Coal Through Port Metro Vancouver

38 MMT of coal are currently transported through terminals in Port Metro Vancouver's jurisdiction annually. Fraser Surrey Docks has been permitted to handle 4 MMT, following a thorough review process.


Project Timeline

- FSD Application to Port Metro Vancouver for Project Permit
- 2 Rounds of Consultation
- Project Permit No. 2012 – 072 Granted by Port Metro Vancouver August 21, 2014
- Round 1 Public Comment Period (Consideration of Amendment) May 4 – 19, 2015
- FSD Amendment Application Submitted to Port Metro Vancouver June 19, 2015
- Round 2 Public Consultation (Amendment Application) July 17 – August 21, 2015
- Port Metro Vancouver Consideration of Public Consultation Feedback
- Port Metro Vancouver Decision on FSD Amendment Application
**Proposed Permit Amendment**

*Load coal directly to ocean-going vessels*

If the amendment is granted it would allow Fraser Surrey Docks (FSD) to load coal directly to ocean-going vessels (OGVs), which would eliminate or significantly reduce the number of barges required.

The amendment would have no impact on the volume of coal permitted to be shipped through FSD (4 million metric tonnes per year).

One loaded Panamax class OGV can carry approximately four trainloads of coal, and the same volume as eight loaded barges (1 OGV = 8 barges).

**OGVs to Replace Most or All Barges**

<table>
<thead>
<tr>
<th>Potential shipping scenarios</th>
<th>Loaded Trains / Year</th>
<th>Loaded OGVs / Year*</th>
<th>Loaded Barges / Year*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current permit approval</td>
<td>320</td>
<td>0</td>
<td>640</td>
</tr>
<tr>
<td>25% shift to OGVs (with amendment)</td>
<td>320</td>
<td>20</td>
<td>480</td>
</tr>
<tr>
<td>50% shift to OGVs (with amendment)</td>
<td>320</td>
<td>40</td>
<td>320</td>
</tr>
<tr>
<td>75% shift to OGVs (with amendment)</td>
<td>320</td>
<td>60</td>
<td>160</td>
</tr>
<tr>
<td>100% shift to OGVs (with amendment)</td>
<td>320</td>
<td>80</td>
<td>0</td>
</tr>
</tbody>
</table>

*Numbers represent return-trip vessel movements.

**Direct Transfer Process**

Up to 2 trains can be accommodated on-site at one time, and coal would remain undisturbed in railcars until it is ready to be transferred.

1. Train arrives in yard
2. Coal is directly transferred into rail receiving building and covered receiving pit*
3. Coal is directly transferred onto covered conveyor
4. Coal is directly loaded into hatch of ocean-going vessel

*There will be no stockpiles on-site.
<table>
<thead>
<tr>
<th>Project Features</th>
<th>Approved Permit</th>
<th>Proposed Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of coal shipped</td>
<td>4 million metric tonnes / year</td>
<td>No change</td>
</tr>
<tr>
<td>Mode of shipping</td>
<td>640 barge return trips / year</td>
<td>Use of 80 Panamax class ocean-going vessels (OGVs) to replace 640 barges</td>
</tr>
<tr>
<td></td>
<td>(1,280 barge movements)</td>
<td></td>
</tr>
<tr>
<td>Dust mitigation</td>
<td>Dust mitigation measures meet regulatory standards</td>
<td>Additional dust mitigation through use of closed hatches on OGVs and spraying of empty outbound railcars</td>
</tr>
<tr>
<td>Jobs</td>
<td>Estimated 20–25 full-time jobs</td>
<td>An increase of up to 20 additional full-time jobs (up to a total of 40–45 full-time jobs), due to extra shifts required to load OGVs (based on 100% shift to OGVs)</td>
</tr>
<tr>
<td>Marine vessel loader</td>
<td>14.3 metre (m) outreach (length of boom) from the edge of the berth and a maximum height of 15.0 m</td>
<td>27.4 m outreach from the edge of the berth and a maximum height of 36.2 m</td>
</tr>
<tr>
<td>Wastewater settling basins</td>
<td>A two-stage primary and a secondary settling basin with an approximate capacity of 300 m³</td>
<td>Settling basins shifted 37 m west and rotated 90 degrees counter-clockwise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity of settling basins stays the same</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Also included is a 560,000-litre tank for contingency storage purposes for storm events</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Basins would reside under the out feed conveyor for more effective use of space and water management practices</td>
</tr>
<tr>
<td>Rail receiving building and receiving pit</td>
<td>A soft-sided fabric building spanning 17 m in length; bottom discharge pit with 125-tonne surge bin</td>
<td>A metal sided building; shifted 12 m east and 16 m south</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rail receiving building and pit dimensions stay the same</td>
</tr>
<tr>
<td>Overall water catchment area (facility footprint)</td>
<td>5,340 m²</td>
<td>Decreased to 3,680 m²</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Estimated to reduce water runoff by 10–15%</td>
</tr>
<tr>
<td>Rail tracks</td>
<td>Relocation of the front gate</td>
<td>Removal of Shed 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjustments to the rail loop</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No relocation of the front gate</td>
</tr>
</tbody>
</table>
Proposed Project Design

1. Marine vessel loader
2. Wastewater settling basins
3. Rail receiving building and pit
Proposed Project Design

Project Rendering

1. Marine vessel loader
2. Wastewater settling basins
FSD Existing Facility
Location of Proposed Facility
Studies

The following studies were conducted by subject-matter experts for the original project Permit No. 2012 – 072, which was granted approval on August 21, 2014, and have been updated for the proposed amendment:

Human Health Risk Assessment (HHRA) – SNC-Lavalin Inc. (Environment & Water)
The HHRA (2014) evaluated the potential health risks of exposure to substances that may be in the environment as a result of the project. The Addendum Report to the Human Health Risk Assessment (2015) reviewed the changes to the project associated with the proposed amendment and concluded that the proposed amendment is safe for people in the area.

Environmental Impact Assessment (EIA) – SNC-Lavalin Inc. (Environment & Water)
The EIA (2013) reviewed information and project studies that were available, and outlined additional mitigation measures that were designed in response to input from two rounds of consultation. The Addendum to the Environmental Impact Assessment (2015) updated the environmental impacts and mitigation measures associated with the proposed amendment. The EIA Addendum concluded that the amendment is not likely to cause significant adverse environmental, socio-economic or health effects, taking into account the implementation of appropriate mitigation measures.

Air Quality Assessment (AQA) – Levelton Consultants Ltd.
The AQA (2014) evaluated a comprehensive list of emission sources from the project. The Air Quality Assessment Addendum (2015) reviewed potential air quality impacts, considering the changes to the project associated with the proposed amendment, including on-site operations and in-transit emission sources. Levelton concluded that predicted air quality impacts, including ambient background at sensitive receptors and within residential neighborhoods in the vicinity of FSD, are generally low and remain below all ambient air quality objectives.

Marine Risk Assessment – DNV (Det Norske Veritas)
The Marine Risk Assessment (2012) assessed the possible navigational risks associated with the marine transport operations of the project. The Risk Assessment Update (2015) reviewed the navigational impacts associated with changing from barges to OGI’s. While the original Risk Assessment Study (2012) remains relevant, the probability of marine incidents in reduced with the proposed amendment due to the lower number of vessel movements on the Fraser River. The proposed amendment to the coal export operations is acceptable, according to the risk acceptance criteria used in the Risk Assessment Update.

Water Management Plan – Omni Engineering Inc.
The Water Management Plan (2014) provided a description of the Water Management Systems proposed for the project. In review of the Water Management Plan, Omni made minor updates to reflect changes resulting from the proposed amendment and concluded that the original Water Management Plan (2014) is still relevant to the proposed amendment, as the process area has decreased in size.

Spill Response Plan – Fraser Surrey Docks LP
The Spill Response Plan (2013) provided a description of spill response procedures for the facility and berth corridor, as well as responsibilities for reporting and clean-up. The revised Spill Response Plan (2015) was updated to include response procedures for liquid spills and coal spills to land and water. The revised plan includes a Marine Vessel Response section outlining vessel personnel actions and conduct requested in response to a spill event, and the protocols for cleanup and reporting of spills.

Fire Life Safety Plan – Hatch Mott MacDonald
The Fire Safety Plan (2012) was developed to ensure employee safety, comply with existing laws, regulations and codes, and protect FSD’s property. In consideration of the amendment, Hatch Mott MacDonald reviewed the Fire Safety Plan (2012) to confirm the relevance of the fire and safety management impacts described to the proposed project changes. Further to this, Hatch Mott MacDonald conducted a full operational review to update the existing plan as a whole, bringing all aspects of the plan to relevance, and developed a Fire Life Safety Plan (2015).

Environmental Management Plan (EMP) – Soleil Environmental Consultants Ltd.
The EMP (2013) was developed to ensure that all measures required to protect the environment and comply with environmental legislation are identified and implemented during construction and operations of the project. In consideration of the proposed amendment Soleil undertook a review of the EMP, including the Construction Environmental Management Plan (CEMP) to reflect changes resulting from the proposed amendment during project construction. Soleil concluded that construction methods and mitigation measures have not changed substantially, and therefore, the preliminary CEMP prepared for the project still provides a suitable framework for mitigating impacts from construction activities.
Consultation Summary Report
Appendix D
beyonджcoal.ca website
Portcard submitted to Port Metro Vancouver
No New Coal Port

We won’t allow new thermal coal ports to be built in B.C.

Fraser Surrey Docks first proposed to build a new shipping facility for U.S. thermal coal in 2012 so they could barge coal to Texada Island to be loaded onto oceangoing vessels bound for Asia. Now the company has changed plans to make the project even worse: they want to directly load giant coal ships right on the Fraser River in the heart of metro Vancouver, AND send barges of coal to Texada Island.

Port Metro Vancouver (the federal port authority) will decide whether to allow this change. Unfortunately, instead of learning from its past mistakes, the port has made the decision-making process even less democratic than before and wants the public to send their comments directly to the proponent. That would be like Kinder Morgan taking citizen letters of comment instead of the National Energy Board!
It’s more important than ever you make your voice heard. Tell decision-makers what you think of risky coal export proposals in B.C. You have until August 21 to submit a comment. Tell them what kind of assessments and consultation you expect as a concerned British Columbian.

Despite more than two years of delays for this coal project, there are still major gaps the port has refused to address:

- No Health Impact Assessment
- Zero assessment of impacts along the proposed barge route to Texada Island
- No consideration of the cumulative impacts of shipping traffic from multiple existing and proposed export projects
- No public hearings or meaningful consideration of public input in permit decisions

Send a letter today and we’ll make sure it’s part of the public record at RealPortHearings.org. We’ll also send copies directly to the port and federal officials - not just the company who wants to export coal from the Fraser River.

We know we can’t trust the port authority to make a fair decision. It’s run by unelected leaders hell bent on promoting trade and industrial growth with virtually no accountability to the communities where it operates.

The port is fundamentally biased towards industry; in August 2014 it granted Fraser Surrey Docks a project permit despite unprecedented public opposition and concern from local governments, health authorities, businesses, unions and community groups.

The port is just as disinterested in your concerns about this project as they were before the permit amendment. It doesn’t want to read your letters - it will only read a summary of comments written by Fraser Surrey Docks.

This is crazy and unacceptable. That’s why we’re taking matters into our own hands to make sure every voice is heard, to make sure we keep a public record of comments at RealPortHearings.org. and to make sure Port Metro Vancouver CEO Robin Silvester and Federal Minister of Transport Lisa Raitt - who oversees the port - get your letters whether they like it or not.

Send your letter today to let the port and federal government know that British Columbians will not allow risky fossil fuel export projects to be rammed down our throats.
NO NEW COAL PORTS IN B.C.

Dear Fraser Surrey Docks,

Sincerely,

Name:
E-mail:
Address:

PO Box 2233
Vancouver Main
Vancouver B.C.
V6B 3W2

www.beyondcoal.ca/act

Authorized by Dogwood Initiative
Consultation Summary Report
Appendix E
Form Letter from residents of the United States
Jeff Scott
CEO Fraser Surrey Docks LP
PO Box 2233 Vancouver Main
Vancouver, BC V6B 3W2

cc: Fraser Surrey Docks;
Port Metro Vancouver CEO Robin Silvester;
Federal Minister of Transport, Lisa Raitt

Re: your proposal to build a coal port serving ocean going vessels on the Fraser River

Dear Mr. Scott,

I am from the U.S., and so I am writing to say I strongly agree with the May 10th letter below, in agreement with the concerned Canadians that are speaking out in opposition:

We write in response to your announcement that you intend to replace plans for a coal barge loading facility with plans to build a coal port serving ocean-going vessels at your Surrey site.

We wish to inform you of our ongoing opposition to the construction of any coal operations on the banks of the Fraser River, for reasons including the following:

• This proposal will increase open-car coal train traffic through our residential communities. More coal train traffic means our families will be exposed to more diesel exhaust (a known carcinogen), more coal dust, and more nighttime noise from train whistles at levels deemed unsafe by the World Health Organization. Homes in neighbourhoods closest to rail lines will also be exposed to more potentially damaging vibration from heavy coal trains more than 2 kilometres long.

• When burned, the coal exported from Fraser Surrey Docks would release as much global warming pollution as the 6th largest polluter in Canada - just behind the two biggest tar sands processing facilities and the three biggest coal-fired power plants. Just last week UN Climate Chief Christiana Figueres said that in order to avoid runaway, catastrophic climate change there is no room in the world for new coal developments. That includes new ports like the one you’re proposing.

• This proposal will increase freighther traffic in the Salish Sea, increasing risk of oil spills and shipping accidents and impacts on wild salmon and endangered orca populations.

We remind you that in June 2013, Metro Vancouver, our regional government, voted overwhelmingly to oppose any coal exports from your Fraser River site. Numerous individual municipalities, including New Westminster, Surrey, White Rock, Delta, Richmond and Vancouver have either opposed this project outright or demanded full public hearings, an independent health impact assessment (HIA) and a fully-scoped environmental assessment before any approvals were granted for your project.

The call for an HIA to fully evaluate the risks posed by your proposal came directly from our regional health authorities. Numerous health care groups and doctors have supported this request.
As you know, to date these requests remain unanswered. Public hearings, an HIA and a fully scoped EA have not taken place for this project. In general, the lack of meaningful consultation with the public, local and regional governments and health authorities has been an issue of ongoing concern during the review of your project.

There is widespread opposition to your project. The cities of Surrey and New Westminster have indicated they will apply to intervene in the legal challenge of the Port’s previous approval of your direct transfer coal facility, initiated by Communities and Coal, Voters Taking Action on Climate Change and two individual applicants. The Musqueam Nation has filed its own, separate legal challenge of the permitting of your facility as well. Further, we note that your company has been a strong advocate for removal of the George Massey Tunnel and deeper dredging of the Fraser River — modifications to the river would allow deeper draft vessels to reach your facility, effectively turning the Fraser into a “marine highway.”

We are deeply concerned that if these modifications come to pass your facility will begin exporting larger volumes of coal on bigger vessels. This will mean still more coal trains through our communities, more noise, diesel exhaust and coal dust, more ship traffic in the Salish Sea, and more climate-harming pollution when the exported coal is burned. This is not something we want to see happen in our region, and we know that our neighbours in Washington, Oregon, Idaho and Montana are working hard to stop more coal trains from running through, and new coal ports from being built, in their communities to avoid these same impacts.

Mr. Scott, we have nothing against your company and wish it well, but there is no future in exporting thermal coal. The end of the age of coal has been acknowledged by a wide range of organizations including the World Bank, HSBC, Goldman Sachs, the International Energy Agency the US Export-Import Bank and even executives of your company’s owner, the MacQuarrie Group. We share their concerns about coal and climate change and our opposition to this project will not end. We want our communities to host the ports of tomorrow, not the ports of yesterday. We urge you to abandon plans for this coal port and seek a different path forward.

Sincerely,
Consultation Summary Report
Appendix F

Petition Presented to Jeff Scott on June 2, 2015,
by Paula Williams of Communities and Coal

Note: The complete list of the individuals and organizations who signed this letter is available at the petitioners’ website RealPortHearings.org.
Re: your proposal to build a coal port serving ocean going vessels on the Fraser River

Dear Mr. Scott,

We write in response to your announcement that you intend to replace plans for a coal barge loading facility with plans to build a coal port serving ocean-going vessels at your Surrey site. We wish to inform you of our ongoing opposition to the construction of any coal operations on the banks of the Fraser River, for reasons including the following:

• This proposal will increase open-car coal train traffic through our residential communities. More coal train traffic means our families will be exposed to more diesel exhaust (a known carcinogen), more coal dust, and more nighttime noise from train whistles at levels deemed unsafe by the World Health Organization. Homes in neighbourhoods closest to rail lines will also be exposed to more potentially damaging vibration from heavy coal trains more than 2 kilometres long.
• When burned, the coal exported from Fraser Surrey Docks would release as much global warming pollution as the 6th largest polluter in Canada - just behind the two biggest tar sands processing facilities and the three biggest coal-fired power plants. Just last week UN Climate Chief Christiana Figueres said that in order to avoid runaway, catastrophic climate change there is no room in the world for new coal developments. That includes new ports like the one you’re proposing.
• This proposal will increase freighter traffic in the Salish Sea, increasing risk of oil spills and shipping accidents and impacts on wild salmon and endangered orca populations.

We remind you that in June 2013, Metro Vancouver, our regional government, voted overwhelmingly to oppose any coal exports from your Fraser River site. Numerous individual municipalities, including New Westminster, Surrey, White Rock, Delta, Richmond and Vancouver have either opposed this project outright or demanded full public hearings, an independent health impact assessment (HIA) and a fully-scoped environmental assessment before any approvals were granted for your project.

The call for an HIA to fully evaluate the risks posed by your proposal came directly from our regional health authorities. Numerous health care groups and doctors have supported this request.

As you know, to date these requests remain unanswered. Public hearings, an HIA and a fully scoped EA have not taken place for this project. In general, the lack of meaningful consultation with the public, local and regional governments and health authorities has been an issue of ongoing concern during the review of your project.

There is widespread opposition to your project. The cities of Surrey and New Westminster have indicated they will apply to intervene in the legal challenge of the Port’s previous approval of your direct transfer coal facility, initiated by Communities and Coal, Voters Taking Action on Climate
Change and two individual applicants. The Musqueam Nation has filed its own, separate legal challenge of the permitting of your facility as well.

Further, we note that your company has been a strong advocate for removal of the George Massey Tunnel and deeper dredging of the Fraser River — modifications to the river would allow deeper draft vessels to reach your facility, effectively turning the Fraser into a “marine highway.” We are deeply concerned that if these modifications come to pass your facility will begin exporting larger volumes of coal on bigger vessels. This will mean still more coal trains through our communities, more noise, diesel exhaust and coal dust, more ship traffic in the Salish Sea, and more climate-harming pollution when the exported coal is burned.

This is not something we want to see happen in our region, and we know that our neighbours in Washington, Oregon, Idaho and Montana are working hard to stop more coal trains from running through, and new coal ports from being built, in their communities to avoid these same impacts.

Mr. Scott, we have nothing against your company and wish it well, but there is no future in exporting thermal coal. The end of the age of coal has been acknowledged by a wide range of organizations including the World Bank, HSBC, Goldman Sachs, the International Energy Agency the US Export-Import Bank and even executives of your company’s owner, the MacQuarrie Group. We share their concerns about coal and climate change and our opposition to this project will not end. We want our communities to host the ports of tomorrow, not the ports of yesterday.

We urge you to abandon plans for this coal port and seek a different path forward.

Sincerely,

Paula Williams, Communities and Coal
Laura Benson, Dogwood Initiative
Eoghan Moriarty, Real Port Hearings
Kevin Washbrook, Voters Taking Action on Climate Change

Open letter coordinators.

58 organizations and businesses have endorsed this letter. The list includes numerous organizations working to stop US thermal coal exports in both British Columbia and the western United States. Their logos appear on the next four pages of the letter. Visit RealPortHearings.org to click on their logos and visit their sites.

Below the organizational endorsements, 2944 people have signed the letter as individuals. Each has indicated their home community. Most of the signatories are from southwestern BC, though many living near the coal rail route in Washington and other states have also signed the letter. Many individuals have also indicated organizational affinity but are not signing on behalf of those organizations.