

Purpose of this Report

This Input Consideration Report provides a summary of comments and questions received during the Preliminary Public Comment Period of the Fraser Grain Terminal Project, and the related responses and actions from the Project Team. Interested parties were invited to provide feedback and ask questions about the scope of studies being prepared for the Project and Environmental Review (PER) application that will be submitted to the Vancouver Fraser Port Authority (the port authority).

Input received for the Fraser Grain Terminal Project was compiled in the Preliminary Public Comment Period Consultation Summary Report, which is available at frasergrainterminal.ca and on the [port authority's website](#). All input received during this period will be considered in developing the scope of technical and environmental studies, and will continue to be incorporated through the design phase of the Project. Following the submission of the permit application in Spring 2017, a second phase of engagement and consultation will be conducted, including opportunities to provide input on the results of the PER assessments.

Project Overview

Fraser Grain Terminal proposes to build a grain export facility at 11041 Elevator Road adjacent to Fraser Surrey Docks on Vancouver Fraser Port Authority land in Surrey, B.C. It will be used to ship bulk grain products including wheat, barley, oil seeds, pulses and other specialty grains with a throughput of 4 million tonnes per annum (Mt/a). This new facility will receive grain by rail, and will then load the agri-products on to cargo vessels. The facility and travelling ship loader will have a modern design that minimizes noise and dust from grain handling operations and will replace an aging and obsolete manufacturing warehouse on vacant port land that has not been used for more than two years.

Following demolition and removal of two existing buildings, that is the subject of a separate project permit application, new construction on the site will include:

- Unloading station and transfer tower with fully enclosed conveying equipment and a built-in dust suppression system

- 34 above-ground steel storage bins (24 x 3,000 t and 10 x 500 t)
- Travelling ship loader with telescopic cascading spout to reduce dust during vessel loading, replacing an existing ship loader fitted with older technology
- Semi-loop rail track and holding tracks to reduce shunting during unloading
- Container loading facility and storage yards
- Rail and truck loading facility
- Administration building and maintenance shop

Preliminary Public Comment Period Overview

Fraser Grain Terminal's approach for the Preliminary Public Comment Period was developed using the requirements outlined by the port authority for public and stakeholder consultation. The Preliminary Public Comment Period was held from November 3 to December 1, 2016 and included the following activities:

- Developed a [Project website](http://frasergrainterminal.ca) to make information available to the community and stakeholders (frasergrainterminal.ca)
- Created an **information brochure** with a Project description and details about how to participate (made available at public meetings and for download on the Project website)
- Developed an **online feedback form** to collect community and stakeholder input (paper copies were available at public meetings)
- Developed [notification letters](#) for stakeholders and residents, including a Project description and details about how to participate
- Delivered [notification letters](#) by hand, regular mail and email to local residents and businesses and three community associations between November 2 to 14, 2016
- Placed [newspaper advertisements](#) in three local papers (November 3 and 4, 2016)
- Hosted two **information meetings** in the community (November 16 and 26, 2016)

Participation results are as follows:

- 62 people attended the two public information meetings

- 29 participants completed the online feedback form
- 90 people requested to be added to the Project update database
- 4 written submissions were received by email

Further details about the Preliminary Public Comment Period are provided in the Preliminary Public Comment Period Consultation Summary Report, available at frasergrainterminal.ca and on the [port authority's website](#).

Consideration of Consultation Input

The following table summarizes input received from respondents through the Project online feedback form, public meetings and written submissions as well as the Project Team’s response.

Please note that similar comments or questions have been summarized into themes. For detailed verbatim comments, please see the Preliminary Public Comment Period Consultation Summary Report, available at frasergrainterminal.ca and on the [port authority's website](#).

Theme	Consultation Input	Project Team Response/Action
AIR QUALITY		
<i>Dust and dust control during operations</i>	How will dust be controlled during the unloading of grain (rail) cars and ship loading operations?	The unloading station and transfer tower will have fully enclosed conveying equipment and a built-in dust suppression system. The ship loader will be a totally enclosed cascading spout.
	Request for a comparison of dust created by the proposed facility and existing facility.	A comparison of emissions generated by the proposed facility and existing facility will be conducted. The assessment will focus on emission sources within the site boundary.
<i>Air emissions and assessment</i>	Suggest fully considering the following sources of emissions for the assessment: marine, rail, on-road, non-road, stationary and fugitive emissions. Suggest the scope of the assessment should also include supply chain activities.	The assessment will include all of these sources. Specifically, it will consider: marine, rail, on-road, non-road, stationary and fugitive emissions and will also include supply chain activities within port authority jurisdiction.

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	Suggest that a Level 2 assessment be undertaken.	A Level 2 assessment, emission estimation and atmospheric dispersion modeling, is required as part of the PER process and is currently underway. The assessment methods and results will be included in the permit application.
<i>Shore power for marine traffic</i>	Will shore power be available for ships? It should be mandatory for ships to go on shore power while loading/unloading – concerns about diesel engines running while in port.	The port authority is undertaking a shore power initiative throughout its jurisdiction. At present, however, a limited number of bulk grain marine vessels are equipped with this capability so potential benefits associated with shore power are not included in the assessment. With modern ships and better fuel economy and the new low sulphur regulations for marine traffic, we will see continued improvement in emissions reduction in the coming years.
BIOPHYSICAL		
<i>Habitat assessment</i>	Request for comparison of the scope of this study with port authority guidelines for Habitat Assessment and rationale for the exclusion of any components.	In accordance with Vancouver Fraser Port Authority Habitat Assessment guidelines, the Habitat Assessment Report for this Project considers effects to marine and freshwater aquatic habitat, vegetation, and species at risk.
ENVIRONMENTAL MANAGEMENT		
<i>Climate change impacts</i>	Request that the Environmental Management Plan include operational mitigation measures and measures to adapt to climate change impacts.	Potential climate change impacts have been considered in the Project's environmental management planning. A flood inundation assessment has been conducted which identifies potential flooding depths at the site. The assessment has considered scenarios identified in the 2014 BC Ministry of Forests, Lands, and Natural Resource Operations report titled "Simulating the Effects of Sea Level Rise and Climate Change Scenarios on Fraser River Flood Scenarios". This includes the moderate

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		climate change effects of a 0.5m Sea Level Rise on the site. Operational mitigation measures will be incorporated into the permit application and will integrate with the existing Fraser Surrey Docks Emergency Response Plan.
HAZARDOUS MATERIALS MANAGEMENT		
<i>Contaminated soil</i>	Suggestion to remove contaminated soil would allow flexibility for the placement of the silos, allowing for a greater number of shorter silos to reduce view effects.	The Project team considered the cost and potential risks and impacts associated with removal of soil and groundwater contamination in site facility planning and design. Best management practice is to minimize handling and disposal of existing soil and groundwater contamination. Accordingly, the Project has been designed to efficiently reuse the existing concrete slab, and optimize the number and volume of silos for productivity and operational storage needs while providing a sustainable and cost effective solution. View effects will be considered in a view and shade assessment that will be included in the permit application.
NOISE		
<i>Current noise levels</i>	Concerns from many residents about current noise levels coming from the area of the proposed Project site. In particular, train whistles and the noise of steel pipes being moved.	Noise levels have been measured at various locations in the community and on the Project site to assist with benchmarking the current noise environment. Noise models will be used to make a direct comparison of the existing noise environment and the proposed facility. Noise from specific sources has been addressed in the assessment. In the noise model, penalties (i.e. additional decibels) were applied to sources with certain characteristics, such as train whistles, to account for the increased annoyance of these particular sources. The Project does not include

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Noise assessment	Request a noise level comparison of proposed and existing facility.	moving steel pipes. Baseline measurements have been undertaken in the community and used to calibrate noise models to enable direct comparison of the existing noise environment and the proposed facility. Future noise levels, with the proposed facility operating at full capacity, are being predicted using industry best practice 3-D modeling software.
Noise during operations	What type of noise can be expected? Train arrivals/departures, loading/unloading procedures and ship loading operations?	The Project involves receiving product via rail, storing product on-site in silos, loading of vessels and vehicles, and operation of a container yard. The noise sources associated with these activities include rail, conveyors, indexers and mobile equipment, such as trucks and forklifts.
	What type of noise reduction system will be used? What steps will be taken to ensure that our community is not subjected to any further noise pollution, particularly at night? Will there be noise insulation?	A number of low noise initiatives have been incorporated into the design to minimize noise including installing fan silencers, using fully enclosed conveyors with low noise rollers and limiting container yard activities to the daytime/weekday only.
	What will be the operation hours?	Loading activities in the container yard are limited to daytime/weekday only, while shipping and unloading of rail cars could occur at any time. Rail cars will typically be delivered during the daytime.
Train whistles/horns	What can be done to minimize the frequency and duration of the train horns blowing?	Sounding of train whistles at road crossings is a federally regulated safety requirement, mandated to provide heightened safety at rail crossings for road users. The Fraser Grain Terminal is undertaking a study to determine the impact of increasing the number of road

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		crossings in the Fraser Surrey Port Lands area in relation to the existing noise levels. The results of this study will be included in the permit application.
LIGHTING		
<i>Current lighting</i>	Concerns from many residents about current lighting intensity at certain times from port operations.	The site currently contains a derelict facility with no existing operations and therefore no lighting. The lighting plan for the proposed facility will consider lighting required for worker safety, potential effects of light spill to nearby residential areas and will propose mitigation measures.
<i>Lighting for the proposed facility</i>	What about the plan to limit stray light?	The lighting plan will assess the potential effects of light spill to nearby residential areas. A Lighting Impact Statement will be included in the permit application that describes the Project design considerations and proposed mitigation measures.
	Request that all lighting be “dark sky” and be directed away from all residential locations and to be dimmed when not required.	The lighting plan will assess the potential effects of light spill to nearby residential areas. A Lighting Impact Statement will be included in the permit application that describes the Project design considerations and proposed mitigation measures.
SPILL PREVENTION AND EMERGENCY RESPONSE		
<i>Emergency response capability</i>	Concern from a local business regarding access for first responders and effects from potential traffic increases.	Emergency response procedures for the Project will be described in the permit application.
	Request for information on fire prevention and emergency response capability for facility.	The fire protection system and emergency response procedures for the Project will be described in the permit application.
<i>Grain spills</i>	Request for information about ecological impact of grain spills.	Potential ecological effects of grain spills include rodent attraction, aquatic effects, and dust. Grain spills and associated effects will be

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Dust combustion risks	Request for information about risk reduction measures for dust combustion.	<p>minimized at this facility with the installation and operation of fully enclosed conveyors and state-of-the-art ship loading equipment. Standard practices for grain terminals include frequent sweeping as a primary rodent control measure.</p> <p>A comprehensive plan for reducing dust combustion has been developed and will be included in the permit application. Dust reduction measures include:</p> <ul style="list-style-type: none"> • A baffled and aspirated unloading pit • Slow speed, totally enclosed conveyors • Slow speed, totally enclosed bucket elevators • “Bean ladders” with slatted baffles to reduce speed and distribute the product in the storage spouts • Sealed and cascading ship loading spout • Sealed spouts for railcar, truck and container loading <p>Air cleaning systems will be used at critical transfer points to capture dust in suspension.</p> <p>Reduction of transported dust:</p> <ul style="list-style-type: none"> • The plant equipment uses individual dust filters to minimize intra-plant dust transport. • Heat and spark detectors will be used at critical points to avoid potentially hazardous situations. Countermeasures that will be in place in case of explosions or fires in equipment include explosion

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		relief panels, sprinklers and deluge valves.
STORMWATER POLLUTION PREVENTION		
	No comments or questions received.	
TRAFFIC		
Shipping	What is the frequency and size of ships servicing the terminal?	The terminal will see approximately 80 to 100 bulk vessels per year (approx. 1-3 vessels per week), including Panamax, Supramax and Handy-size vessels.
	Request for information about increases in shipping and provision of appropriate navigation aids and pilots.	Current port operations have navigational aids. The port authority is responsible for the safe, efficient and reliable movement of marine traffic, and the facility operators will work closely with the port authority.
Extension of rail tracks	Extension of railway tracks will extend over Metro Vancouver Water Services' pipes, and access must be included as part of the design and construction monitored in order to ensure facilities are not damaged.	The existing port authority rail yard configuration includes multiple crossings of underground municipal services, each properly designed according to required codes for the protection of these services. In most cases, where protection is required, this involves appropriate bridging structures to avoid damaging buried services. Likewise, new trackwork within the rail yard will meet all current requirements.
Increased train traffic	Local businesses currently experiencing trains blocking access at level crossings. Concerns about increases in train traffic and more congestion. Would like to see a safe and reliable solution to current traffic challenges before the addition of a new large facility.	Future traffic, including the interactions between road and rail, will be assessed as part of the permit application.
Increased vehicle traffic	Recommend setting out the trip generation methodology, assumptions, potential uncertainties of the traffic outputs and mitigation measures as trip generation statistics in the study guidelines may be	The traffic assessment will focus specifically on the detailed traffic characteristics of the proposed new facility such as the number of required employees to run the facility, shift

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	dated.	change times, and truck traffic. The assessment will include analysis of peaking scenarios if multiple components occur at the same time.
	Concern from local business about increased congestion as area is already seeing congestion effects.	Future traffic, including the interactions between road and rail, will be assessed as part of the permit application.
VIEW AND SHADE		
<i>Height of silos and conveyor/view considerations</i>	What is the proposed height of the silos and conveyors? How will these impact residents in Surrey and Delta?	<p>The Project includes 24 silos measuring 34.5 m in height, and 10 silos measuring 26.4 m in height. Conveyors and conveyor galleries will be located on top of the silos, bringing the maximum height to 54.4 m.</p> <p>The View and Shade Study will analyze the effects of the proposed siting, massing, and height to public and private views of the visual landscape and to the surrounding community and skyline. Potential shade impacts on the surrounding areas will also be assessed. Recommended mitigation techniques will be included in the View and Shade Study.</p>
	Request to see full concept drawings and relative idea of what this will look like from nearby residence.	The View and Shade Study will include photographs and visual renderings of existing and proposed developments, and recommended mitigation strategies.
GENERAL		
<i>Rodent control</i>	Will rodents be a problem and if so how will they be controlled?	<p>Access to grain is minimized through the use of:</p> <ul style="list-style-type: none"> • Fully enclosed conveying equipment • Elevated, steel silos • House cleaning procedures to quickly eliminate any spilled product. <p>In addition to frequent sweeping, rodent capture</p>

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		<p>devices will be used to minimize the potential for rodent-related issues in the surrounding community.</p>
Odour	<p>Will there be an odour associated with operations and if so how will it be controlled?</p>	<p>The primary way of ensuring no odour is to prevent grain from spoiling – this includes keeping it dry and minimizing storage time before shipping. Grain received at the proposed site will spend an average of only 8 days in the facility before being shipped out, minimizing time for product deterioration. All silos are self-cleaning and very little dust will be generated. Any dust will be returned directly to the grain stream in caked form.</p>
Fraser Surrey Docks proposed coal facility	<p>Many residents at the Surrey/Delta public meeting had questions or expressed concerns about the proposed coal terminal at Fraser Surrey Docks. Will the proposed coal terminal be going ahead? Will the Fraser Grain Terminal Project be replacing the proposed coal terminal?</p>	<p>The proposed coal terminal at Fraser Surrey Docks is a separate and unrelated project. Fraser Grain Terminal can only comment on matters related to the Fraser Grain Terminal Project.</p>
	<p>Could there be cross-contamination of coal dust and the grain?</p>	<p>Many grain export facilities, including facilities in Vancouver, successfully operate in close proximity to other non-grain terminals. Canadian grain handlers are particularly well respected internationally due to the consistent and high quality of their product due to requirements to segregate and protect the grain products from each other and from external contaminants.</p> <p>Some of the features used to eliminate the emission of grain dust in the Fraser Grain Terminal Project will also serve to isolate the grain from the airborne elements:</p> <ul style="list-style-type: none"> • Totally enclosed conveyors

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		<ul style="list-style-type: none"> • Totally enclosed bucket elevators • Enclosed silos • Covered receiving pit
<i>Dredging</i>	Is there a plan to further dredge the Fraser River to accommodate Super Panamax vessels?	This Project does not include dredging.
<i>Short-sea shipping</i>	Will this be primarily used for trucking, or as a point of short-sea shipping as well?	The terminal will receive grains and other agri-products by rail then transfer them to storage silos with a small amount loaded directly to vessels. From the storage silos, most products will be loaded onto cargo ships, with the remaining product transferred into containers, rail cars or trucks. There may be opportunities to explore short-sea shipping in the future.
<i>Human health assessment</i>	Suggest the inclusion of a Human Health Assessment in the scope of technical studies.	Vancouver Fraser Port Authority has not identified a human health assessment as a requirement for this Project review. However, air quality and noise considerations and potential effects to nearby receptors will be addressed in specific studies.
<i>Land use</i>	Suggest the inclusion of an assessment on how land use in the region may be impacted by the Project, and how the port authority will work with local governments to respond to these pressures.	The site is designated as industrial land under the port authority Land Use Plan. The Project will replace an existing derelict facility.
	Who will make decisions on rezoning requests by the tenant?	No rezoning is required. This is an approved use of the site, replacing an existing derelict facility.
<i>Cumulative effects</i>	Recommend that the port authority assess the cumulative environmental impacts of existing and approved projects, as well as proposed projects along the Fraser River.	The port authority has not identified a cumulative effects assessment as a requirement for this Project review.
<i>Site selection</i>	Why not locate on Burrard Inlet or the mouth of the Fraser so the depth of the river will not limit ship loading?	Of the available port sites, the selected site is preferred for efficiency and ease of access to marine, road and rail modes.