



FRASER RIVERKEEPER®

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RE: Feedback Regarding Application To Amend Permit No. 2012-072 - Direct Transfer Coal Facility

Good day,

On May 4th, 2015, we at Fraser Riverkeeper were disappointed to learn of the application by Fraser Surrey Docks (FSD) to amend permit no. 2012-072 to build a direct-transfer coal terminal, changing from plans to build a barge loading facility to a full-fledged coal port, with plans to load coal directly onto Panamax-class ocean going vessels. We are grateful for this opportunity to provide feedback regarding the proposed permit amendment and addenda to the project's environmental impact assessment (EIA), marine risk assessment (MRA), and environmental management plan (EMP).

While we do acknowledge that amending the original project to include transporting coal in closed-hatch vessels, as opposed to open barges, in order to reduce contamination in the marine environment from errant coal dust, as well as reducing the facility's overall footprint and, in turn, the amount of potentially contaminated water runoff from the site, are both positive developments; the increase in large vessel traffic that this project will bring, along with the potential for future dredging operations to better accommodate them following the planned removal of the Massey Tunnel, raise some new concerns for us. Additionally, points that we previously raised about the potential harm to fish resulting from the use of surfactants in the dust suppression process have yet to be adequately addressed.

A detailed summary of our chief concerns can be found below:

Future Dredging

The amended EIA for the proposed facility states that "no incremental dredging" is planned for this project, so FSD has not sought the required permits or assessed the environmental impacts of dredging in the lower Fraser. However, this amendment, with its stated intention of allowing Panamax-class vessels to dock at the FSD coal facility, seems to have been tabled in anticipation of dredging following the planned removal of the Massey Tunnel.

Under the current channel conditions, the Fraser River can accommodate vessels that are a maximum of 270 metres in overall length, 32.2 metres in width, and 11.5 metres draft. These restrictions fall just below the maximum size requirements for [Panamax-class vessels](#) at 294.13 meters overall length, 32.31 meters in width, and 12.04 meters draft. Therefore, Panamax-class vessels whose dimensions exceed the maximums for the Fraser River's current channel conditions would be unable to call at the FSD coal facility.

Taken together with FSD's [previous vocal support](#) for dredging the Fraser to create an additional 2 meters of depth and allow for the passage of vessels with a draft of up to 13.5 meters, it is clear that this permit amendment has been designed to take advantage of future dredging activities in order to maximize the number of vessels that will be able to call at the FSD facility. It is also no small stretch to imagine that, once this dredging has taken place, an increase in vessel traffic will eventually translate into an increase in coal shipments through FSD; meaning more trains, more noise, and more dust.

Increased Vessel Traffic

While we acknowledge that the use of closed-hatch vessels to transport coal through the Strait of Georgia is a positive step to reduce contamination from windblown coal dust, we would like to counter that it would also mean an increase in large vessel traffic, which translates to an increase in marine noise pollution and the risk of collisions between vessels and wildlife. Additionally, as mentioned above, Panamax-class vessels represent, and sometimes exceed, the largest size of vessel that the Fraser River can accommodate under current channel conditions. As such, increasing the number of these massive ships navigating the comparatively narrow Fraser each year will certainly increase the chances of a serious incident, such as a collision or spill, in the future.

High levels of low-frequency noise pollution generated by large commercial vessels are [known to have a range of impacts](#) on marine species. Most notably, noise pollution from commercial vessels is known to mask or otherwise disrupt communication in cetaceans, which can have an impact on behavioural patterns, migration routes, and, in cases of prolonged exposure, lead to auditory damage and hearing loss.

While concerns about noise pollution from the construction and operation of FSD's coal facility are considered in the addendum to the project EIA, it is mostly focused on noise from trains and its human impacts. Neither the addendum, nor the original EIA document, take into consideration the impacts of increased marine noise pollution on wildlife beyond ensuring that best practices are followed for pile driving operations.

Furthermore, the stretch of the Fraser River immediately downstream from the proposed coal facility, between Barnston and Annacis Islands, was identified as a critical rearing habitat for white sturgeon (*Acipenser transmontanus*) in a 2009 [study](#) by the Fraser River Sturgeon Conservation Society. Sturgeon are benthic-feeding fish, meaning that they spend the majority of time searching for food within roughly 1 meter of the river bottom. This, sadly, places them at [greater risk](#) of being struck and killed by deep-draft vessels, such as the Panamax-class ships that will be calling at the proposed FSD facility.

If this permit amendment were to be approved it would mean at least 80 more deep-draft vessels moving through sensitive sturgeon habitat each year, increasing the chances of a fatal collision between a sturgeon and a coal ship and placing additional pressure on an already threatened species. It is essential that FSD and PMV address these concerns and include measures to mitigate the impacts of increased vessel traffic and associated underwater noise pollution in their EMP.

Use of Surfactants

In our previous comment letter regarding FSD's application for a permit to discharge wastewater from the proposed facility to Metro Vancouver's sewer system, we identified the use of unspecified "surfactant" dust suppressants as a cause for concern since exposure to high concentrations of surfactants, regardless of biodegradability, is known to have a [range of harmful effects](#) on fish.

[Surfactants](#) are widely used domestically and in industry as detergents, wetting agents, foaming agents, and dispersants. They are compounds which lower the surface tension between two liquids or a liquid and a solid. By lowering the surface tension of water, they can facilitate the formation of emulsions with otherwise immiscible liquids such as oils and fat.

Since surfactants reduce the ambient surface tension of the water, lipid (fat) cells become less water repellent and, so, become engorged. Long-term exposure can lead to cell damage and eventual necrosis. Furthermore, surfactant exposure can cause impaired gill function in fish, as well as damage the protective mucus membrane that covers their bodies, making them more susceptible to injury and infection.

While the amended EIA documents refer to the use of products deemed "non-toxic" by their manufacturers, the MSDS information for all but two of the products provided in [Appendix II](#) are completely lacking in fish and ecosystem toxicity data. The EIA also fails to specify exactly which of these products will be used or in what quantity.

We at Fraser Riverkeeper feel that these information gaps are unacceptable, and must be closed immediately. We urge that FSD and PMV clearly identify which of the listed products they intend to use on site, provide an estimate to the amount that will be used, as well as ensuring that proper fish and ecosystem toxicity testing for these products are undertaken and the results made publicly available.

In conclusion, Fraser Riverkeeper would like to state, once again for the record, that we remain opposed to any expansion of coal exports through Metro Vancouver's waterways. While the use of closed-hatch vessels and a reduction in the facility's overall footprint do contribute to mitigating the environmental

impacts caused by escaped coal dust and contaminated water run-off; this project will still bring an additional 4-8 million tons of Powder River Basin coal moving through our communities on open rail cars, generating unsafe levels of noise and carcinogenic dust, and contributing to global climate change when it is burned at its final destination. Taken together with the concerns we have raised in our letter above, it is clear to us that the risks posed by this proposed development, both in its original and amended form, are simply too great.

Again, we thank you for this opportunity to comment on the proposed amendment and hope that you will seriously consider the points we have raised.

Kind regards,

A handwritten signature in black ink, appearing to read 'Joe Daniels', with a long horizontal flourish extending to the right.

Joe Daniels
Fraser Riverkeeper