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Port Metro Vancouver Planning and Development
100 The Pointe, 999 Canada Place
Vancouver, BC V6C 3T4

Dear PMV:

Re: **EIA for Proposed Fraser Surrey Docks Direct Transfer Coal Facility**

On behalf of our volunteer group, Cougar Creek Streamkeepers (North Delta / Surrey BC), I am writing to express our concern with the incompleteness of your Environmental Impact Assessment for the proposed Fraser Surrey Docks Direct Transfer Coal Facility. Thank you for this additional opportunity to provide input.

Scope of EIA is totally inadequate

The EIA defines at the outset that it stops at the Fraser Surrey Docks boundary -- and yet it goes on to ... sort of ... acknowledge the potential impact of rail transport *to* the docks. In particular, it cites:

- a second application of topper agent to rail cars, at the halfway point from the mine (if the topper is beginning to fail at the halfway point, won't it be failing again when it reaches us after the second half of its journey?)
- a study by Delta Climate Action and Environment showing unacceptable levels of coal dust at 15 metres away from the BNSF rail line that presently delivers the same type of coal to Westshore Terminal.

These references in the EIA indicate to me that you do indeed recognize transport impacts, but you simply “don’t want to go there” in your impact assessment. The Federal Government in turn has passed the buck too, saying that it’s all a Port Metro Vancouver matter.

While you may not be legally required to include the rail route in your EIA, you are most certainly *morally* required to do so. Good corporate citizenship (and good long-term economics) means factoring in *all* the costs of a business activity, not simply externalizing health and environmental costs that the business owners would rather not deal with.

Cumulative effects assessment is inadequate

The EIA takes a very narrow definition of cumulative effects assessment: “That environmental effect must be demonstrated to operate cumulatively with the environmental effects from other projects or activities.”

Again, this may be legal, but it’s irresponsible. A “cumulative effect” can most certainly arise from a *single* activity that is pursued over time.

Coal dust accumulates in the environment, particularly in the aquatic environment. The EIA indeed touches upon this very issue, when it mentions (p. 159) mean coal concentrations in sediments near Westshore Terminal of 1.80% in 1977 and 3.60% in 1999. That’s a cumulative effect.

Coal dust tends to adhere to surfaces. Once it enters the Fraser River from FSD - whether through accidental stormwater releases, spills, or rainfall washing airborne dust into the water - we can expect this dust to cling to river sediments and aquatic vegetation, and gradually accumulate more and more thickly there.

While the dust is possibly not toxic in itself (the EIA discusses binding of PAHs, but glosses over toxic metals), the sheer *physical* barrier created by coal dust attached to sediments, rocks, aquatic plants, etc, could make it very harmful to fish, shore and water birds, and benthic organisms.

Furthermore, is it likely that river turbulence during spring freshet or heavy storm flows will dislodge coal dust deposits and move them down river to other sites? Specifically ...

Glenrose Tidal Marsh Habitat Banking sites vulnerable to cumulative effects?

The EIA does not discuss possible impacts of the above-mentioned aquatic coal dust deposits on PMV’s nearby Glenrose Tidal Marsh Habitat Banking project (3 new sites just down river from Fraser Surrey Docks).

Stormwater management

The EIA acknowledges “localized” higher concentrations of airborne coal dust that will remain within the FSD fence line. Rainfall will of course wash this dust out of the air and onto pavements that drain into storm sewers and/or directly into adjacent watercourses (Fraser River and smaller creeks described in EIA).

I presume this means that FSD would need to treat *all* stormwater runoff from its facility - not just stormwater from the Coal Terminal? Is this the case?

If not, then fugitive coal dust from adjacent areas of the port facility will end up in the Fraser and/or smaller nearby creeks -- again, increasing the likelihood of long-term accumulations on aquatic sediments.

Too optimistic about the weather?

In terms of stormwater management, flooding, and possible dust losses from coal barges, the EIA conveniently ignores trends toward heavier rain events and weather extremes.

The EIA states: “In the event of heavy rainfall, there is potential for a surplus of drainage wastewater.” In short, we have no assurance that the stormwater treatment system (whether on site or piped to a Metro Vancouver facility) won’t be overwhelmed by a severe and/or extended rain event. Wastewater from coal-dust suppression spraying will of course add to the volume of water that needs to be managed. I see yet more potential here for aquatic deposition of coal dust and associated heavy metals.

And what happens when barges set out for Texada in calm winds, and find themselves out in open water as the wind kicks up? Again, more potential for aquatic deposition of coal dust and associated heavy metals

If operations are temporarily suspended due to inclement weather, the excess coal will apparently be stored on barges at the dock (or I presume even in rail cars waiting to unload, if the docked barges are full). What does the extreme weather do to these waiting barges and rail cars? Where does stormwater drain out of these containers, and how much coal and/or topper agent does it take with it?

A question of scale

For my own interest, I did a few calculations:

- 8,000,000 metric tons of coal per year equals more than 17,000,000,000 pounds
- Suppose that coal dust losses are just 1 / 10,000th of one percent at Fraser Surrey Docks

17 000 000 000 lbs	= total amount of coal
17 000 000 00	= 10 %
17 000 000 0	= 1%
17 000 000	= 1/10 th of one percent
17 000 00	= 1/100 th of one percent
17 000 0	= 1 / 1,000 th of one percent
17 000	= 1 / 10,000 th of one percent

- Is my math correct?
- Does 1 / 10,000th of one percent sound like a conservative estimate of how much coal dust could be lost at Fraser Surrey Docks?
- If so, that's 17,000 lbs of coal dust annually; that's a lot.

We've learned from recycling programs that the cumulative impact of many small actions can be huge - hugely beneficial, in the case of recycling.

There are numerous unsubstantiated assurances throughout the EIA that harmful effects from "small" amounts of fugitive coal dust are "generally not expected". I beg to differ. When we're dealing with such vast quantities of coal, "small" effects can add up to huge effects.

Why I care

As a Cougar Creek Streamkeeper, one of my greatest concerns is of course the welfare of Lower Cougar Creek and the Delta Nature Reserve (Burns Bog) through which it flows.

The BNSF line parallels Lower Cougar Creek from Westview Drive to River Road. For much of that stretch, the track is a mere 3 to 10 metres from the creek. Therefore, coal dust deposition into the creek from BNSF coal cars can most certainly be expected to match or exceed the unacceptable levels measured by Delta Climate Action and Environment at a distance of 15 metres from the BNSF track that runs to Westshore Terminal.

Cougar Creek presently has hundreds of juvenile wild coho, and additional hundreds of resident cutthroat trout, just a 2-minute walk upstream from where the BNSF track begins to parallel the creek. Downstream from that point, and only 3 or 4 metres away from the BNSF track, there are at least 15 chum salmon redds (shallow nests in the creekbed). This is an amazing rarity in an urban area, and a testimonial to the potential for integrating natural systems into an urban fabric.

If the FSD Coal Terminal goes ahead without thorough examination of potential impacts on this corridor, it will almost certainly spell the end of wild migratory salmon in the creek. In addition, acidic waters in the Delta Nature Reserve (Burns Bog) may well "unlock" the heavy metals in coal dust, causing irreparable damage to birds and wildlife as these metals accumulate in the environment.

Over the past 3 decades, thousands of volunteers have spent hundreds of thousands of hours protecting and enhancing this unique natural corridor. There's going to be a lot of bitterness if all these efforts prove to have been wasted - and wasted without even the courtesy of a full and independent Environmental Impact Assessment.

Yours sincerely,

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