



SUBMISSION TO CANADIAN ENVIRONMENTAL ASSESSMENT AGENCY ON ROBERTS BANK TERMINAL 2 PROJECT

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Roberts Bank Terminal 2 Project
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Comments on the Draft Environmental Impact Statement (EIS) Guidelines for the Roberts Bank Terminal 2 Project

BC Nature (Federation of BC Naturalists) is the provincial voice for naturalists, representing 53 member clubs in British Columbia. Our motto is “know nature and keep it worth knowing”.

In this submission, we outline our concerns regarding environmental impacts at the Roberts Bank Terminal 2 site and ancillary developments, and also our concerns along the marine shipping route between the terminal and the open ocean.

DEFICIENCIES

The draft EIS guidelines for the Roberts Bank site are deficient in a number of respects. These include the need for a larger study area and for a Joint Review Panel assessment to be undertaken.

The scope of the draft EIS Guidelines does not cover the marine shipping route. We consider this to be a serious oversight that needs correction. The increased large ship traffic attributable to the project will significantly increase current environmental concerns along the route.

CEAA must recognize the profound changes in wildlife habitat at Roberts Bank and the Fraser Estuary over the years. The wetlands here, now a mere fraction of their former extent when Europeans arrived in the early 1800s, form part of the Pacific Flyway for migrating birds, which stretches from the far north of Canada to the tip of South America. The development of Roberts Bank Terminal 2 might well be the tipping point for these unique wetlands, and for the Pacific Flyway itself.

The draft guidelines do not cover the marine shipping route at all. We consider this to be a serious oversight, to be corrected. The increased large ship traffic attributable to the project, estimated to be up to an additional thousand or more transits of the route every year, will significantly increase environmental concerns. These include:

- First Nations concerns, including those of the Lummi Nation who have legal rights in the U.S. to protection and restoration of salmon habitat.
- Increased possibility of oil spills from container ships carrying heavy loads of fuel for their voyage across the Pacific Ocean.
- Increased disturbance to the endangered Southern Resident Killer Whales.
- Increased pressure on other marine species listed as endangered, threatened or of special concern in the U.S. and Canada.
- Introduction of invasive species.
- Effect on quality of life and tourism in the Gulf Islands and San Juan Islands.
- Impacts on North America's largest fishing grounds in the Aleutian Islands, an area notorious for adverse marine weather.

CONCERNS RELATED TO THE ROBERTS BANK SITE

1. Cumulative Impacts

At our annual general meeting in May 2009, a resolution passed unanimously to urge the federal government to advise Port Metro Vancouver that any further expansion of Deltaport was unacceptable due to the cumulative environmental impact of additional expansion when combined with previous developments in this ecologically critical area. Roberts Bank and the Fraser Estuary have suffered overwhelming losses in their ecological values since the arrival of Europeans in the early 1800s.

2. Ecosystem Impacts

Deltaport is situated on Roberts Bank in the very centre of the Fraser Estuary ecosystem. The importance of this ecosystem has been recognized under the following designations:

- Ramsar Site (United Nations Wetland of International Importance)
- Globally significant Important Bird Area (IBA), under BirdLife International, with the greatest number of bird species reaching global population thresholds of any IBA in Canada
- Hemispheric site in the Western Hemispheric Shorebird Reserve Network
- National Wildlife Area and provincial Wildlife Management Areas

Roberts Bank lies at the mouth of the Fraser River, which has Canada's largest salmon runs. The Bank is also habitat for marine mammals, including the endangered southern resident population of killer whales, humpback whales, grey whales, two species of sea lion, and two species of porpoise, among other species.

The expansion of the terminal and causeway for BC Ferries, the operation of the coal port and sequential expansions of the existing container terminal have already resulted in massive disturbance of the ecosystems of Roberts Bank.

In 1979, an independent panel review of port development stated:

"From the point of view of estuarine ecology, the Panel has concluded that the potential impacts on the Fraser River estuary, of which Roberts Bank is part, are too great to recommend that the port expansion be approved as proposed. The extent and ecological significance of the Fraser River estuary, particularly its use by fish and wildlife, make it unique in North America. A major salmon fishery depends on its preservation as do hundreds of thousands of migratory birds."

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Federal agencies, including Fisheries and Oceans Canada and the Canadian Wildlife Service of Environment Canada, have repeatedly expressed serious misgivings regarding the expansion of port facilities on Roberts Bank. Environment Canada scientists are on record as stating:

“We are concerned that the chain of the Pacific Flyway could be broken for shorebirds at some point given the ongoing economic development in the Delta. This constitutes a major risk for Canada’s environmental reputation and the economic and social benefits derived from wildlife.”

Since these comments were made, further extensive expansion of the port has taken place. The situation for fish, migratory birds, marine mammals and the ecosystem as a whole is becoming critical.

3. Social Impacts

The proposed Terminal 2 can be expected also to cause numerous sociological impacts on surrounding communities, including noise and light pollution, and concerns about air quality, traffic, quality of life, and decline in property values. Expansion will also lead to further loss of British Columbia’s most productive farmland, increase difficulties in maintaining a local agriculture industry and precipitate further impacts on wildlife, particularly migratory birds, that make use of agricultural land.

CONCERNS RELATED TO THE MARINE SHIPPING ROUTE

It is curious that the draft EIS neglects to include increased ship traffic in its scope. In contrast, in the current Environmental Review of Gateway Pacific Terminal at Cherry Point in Whatcom County, Washington state, the federal scope (U.S. Army Corps of Engineers) includes a detailed evaluation of vessel traffic to a point 8 miles west of Cape Flattery, and the Whatcom County scope requires a general assessment of cargo-ship impacts beyond Washington waters.⁽¹⁾

Several issues related to the increase in ship traffic that is projected due to the Terminal 2 project should be covered by CEAA. These are discussed briefly below.

Although the increase in numbers of container ship arrivals directly resulting from Terminal 2 cannot be predicted precisely because of possible changes in average vessel size over the next decade, an additional 500 or more ship arrivals per year is possible, or more than 1,000 transits of the route per year. See Appendix A, Ship Traffic.

The marine route would run from Deltaport terminal into Georgia Strait, through Boundary Pass and Haro Strait between the Gulf Islands and San Juan Islands, and into the Strait of Juan de Fuca. From there, the primary route for ships going to Asia transits the North Pacific great circle route, intersecting the Aleutian Islands.

The marine aspects of this project cannot be considered in isolation. There are currently nearly 3,000 foreign vessel arrivals (container ships, bulk carrier and tanker) at Port Metro Vancouver terminals per year, or nearly 6,000 transits of the route to and from Metro Vancouver (Appendix A). The proposed Trans Mountain project would add another 700 transits per year. The current expansion at Deltaport will add another 300 transits per year in 2014. The expansion of coal-carrying vessels from Neptune Terminals in Burrard Inlet will add additional vessels in 2014, as would the proposed expansion of coal-carrying vessels from Fraser Surrey Docks on the Fraser River. *If the proposed Deltaport 2 terminal were built, there could be in the order of 8,000 transits every year from Metro Vancouver through the Gulf Islands/San Juan Islands and on from there by 2024. That's about 22 large ship transits through Haro Strait every day.*

ISSUES ALONG THE MARINE SHIPPING ROUTE THAT CEEA MUST ADDRESS

1. First Nations

Consultation should be undertaken with First Nations whose traditional territories include the shipping route through the Gulf Islands and San Juan Islands. Those not mentioned in CEEA's draft EIS Guidelines include Sencot'en Alliance (Tsartlip, Tsawout, Pauquachin) and Te'mexw Treaty Association (Songhees, T'sou-ke, Malahat) in BC and Lummi Nation in northwest Washington state.

In the case of Lummi Nation, note that United States federal court rulings, starting with the Boldt decision of 1974 (U.S. v. Washington), re-affirmed the rights of Western Washington tribes to fish, hunt and gather shellfish, among other activities. The tribes are established as co-managers of the salmon resource with the state, with the right to protection and restoration of salmon habitat. For treaty rights to be honoured, there need to be real gains in habitat protection and restoration.⁽²⁾ Increased ship traffic, with the accompanying increase in shipping accidents and possibility of catastrophic fuel spills, increases the likelihood of harm to fish.

The waters of the San Juan Islands have a significant presence of salmon, including Chinook salmon, listed as 'threatened' under the U.S. Endangered Species Act. Also, some species of salmon from the Fraser River and elsewhere that spend time in lower Georgia Strait migrate thousands of kilometres north along the west coast of BC and southeast Alaska to reach the biologically rich waters of the Gulf of Alaska during their life cycle⁽²⁾. The effect on salmon in any of this wide-ranging habitat potentially impacted by vessel traffic occasioned by the Terminal 2 project must be investigated.

The San Juans have documented 59 forage fish spawning sites that extend along the shoreline. In addition, eelgrass, a priority species and habitat listed along with surf smelt spawning beaches under San Juan County's Critical Areas Ordinance, is present throughout the San Juans. Due to such factors, the San Juans have a relatively pristine shoreline.⁽²⁾ Consultation should take place with San Juan County.

2. Shipping Accidents, with Possible Loss of Huge Amounts of Ship Fuel

Shipping accidents are possible anywhere along the route, including the Fraser delta, the Gulf Islands and San Juan Islands, the Strait of Juan de Fuca, and the Aleutian Islands. The effects of any such accidents could be disastrous.

Risk analysis, prevention and remediation measures proposed, response plans; effects on ecosystems - vegetation, seabirds, marine life including fish, mammals and other vertebrates and invertebrates including intertidal and subtidal - need to be assessed.

A recent report on West Coast Spill Response ⁽³⁾ commissioned by the BC government indicates that response to a BC oil spill would be devastatingly slow and incomplete. Only 3 to 4% of a relatively small oil spill off the north coast of BC would be recovered in the first five days.

The report is part of a detailed assessment that brought to light weaknesses in BC's spill response system. In releasing the three-volume report, the BC government concluded "more federal resources are needed to protect the west coast".

In the Strait of Juan de Fuca, where resources and equipment are closer, between 9 and 31% of a 70,000-barrel spill would be recovered under several scenarios and seasons. Regardless of conditions, global statistics show it is universally difficult to recover oil in the event of a spill.

While more oil could be recovered beyond the five days modelled in BC waters, oil also disperses over time,

increasing the difficulty of recovery.

The study also found there is no federal or provincial law that establishes how long-term impacts to the environment or affected communities will be established or compensated.

3. Southern Resident Killer Whales

The Northeast Pacific Southern Resident Killer Whale population is listed as *endangered* in Canada under the Species at Risk Act and in the U.S. under the Endangered Species Act. Vessel traffic is a threat due to possible collisions with whales, general disturbance, and also due to acoustic disturbance.

The number of boats in the water, including commercial ships, has increased dramatically in recent years. The increase in traffic has the potential to disrupt killer whales simply because more vessels are passing through their habitat and potentially disturbing how whales move through the available space⁽⁴⁾

The shipping route through Boundary Pass and Haro Strait is in designated 'critical habitat' in both the U.S. and Canada for this population. The Canadian federal Court of Appeal confirmed, in February 2012, that the government must legally protect all aspects of critical habitat (in Canada), including quality of the marine environment such as acoustic disturbance.⁽⁵⁾

The Canadian recovery strategy states that sound at received levels of 120 dB typically disrupts the behaviour of cetaceans. In the U.S., the National Marine Fisheries Service is developing comprehensive guidance on what levels of sound exposure are likely to cause behavioral responses or injury, in the context of the *Marine Mammal Protection Act*. Until formal guidance is available, the NMFS is using an interim sound exposure level for impulsive sources of 180 dB as a threshold for temporary or permanent hearing loss of cetaceans, and 160 dB for behavioural disruption.⁽⁴⁾

Commercial ships emit sound in the range of 160 to 200 dB at 1 metre, in the frequency range of 10 Hz to >1 kHz. Killer whales show behavioral responses to sound from 75 Hz to >100 kHz.⁽⁴⁾

4. Other Wildlife

COSEWIC (Committee on the Status of Endangered Wildlife in Canada) lists several marine species in this region as endangered, threatened or of special concern. Over 100 species in the Salish Sea (the unified bi-national ecosystem that includes Washington State's Puget Sound, the Strait of Juan de Fuca, the San Juan Islands, the Gulf Islands, and the Strait of Georgia) are listed as endangered, threatened, or are candidates for listing by at least one of four jurisdictions (British Columbia provincial government, Canadian federal government, Washington state government and US federal government)⁽⁶⁾.

In addition, there are numerous species in severe decline that COSEWIC has not considered, including Common Goldeneye, which has declined 62% since 1970 and Eared Grebe, which has declined 72%⁽⁷⁾

Assessment of wildlife impacts should also include impacts from changes in physical oceanographic change/habitat change (e.g., changes in nearshore currents), light pollution from vessels at night, noise pollution, oil spills, vessel impacts.

5. Invasive Species⁽⁸⁾

Invasive non-native species are successful competitors in new ecosystems, often displacing native species and disrupting ecosystem processes. Coastal estuarine and marine ecosystems are among the most heavily invaded systems in the world. Dominant sources for marine invasive species have included ballast water and hull fouling from ships.

Examples in coastal southern BC include the cord grass *Spartina anglica*, *Batillaria* snail, oyster drill (a serious problem in commercial oyster beds), European green crab (a predator on clams, oysters, mussels), and numerous tunicate species.

6. Quality of Life and Tourism in the Gulf Islands and San Juan Islands

The Gulf Islands and San Juan Islands are home to more than twenty thousand people who have chosen to live there because of the quality of life. Others choose to visit, an important economic engine in the islands. Hundreds of thousands of tourists enjoy the beauty of the San Juan and Gulf Islands annually, and the marine waters are a central theme. Families rent sailboats and yachts, children attend camp, kayakers paddle, and vacationers enjoy the local restaurants, accommodations and shops.

Maintaining the health, integrity and natural beauty of these islands is critical to preserving the local and regional economies.⁽²⁾

7. Aleutian Islands

For ships travelling to and from northern Pacific ports such as Vancouver, the North Pacific great circle route intersects the Aleutian Islands. The Aleutians are home to North America's largest and most valuable commercial fishing grounds and the Alaska Maritime National Wildlife Refuge.

As of 2006, about 3,000 ships per year pass through the Aleutians, including approximately 1,200 container ships per year with a median fuel capacity of 1.6 million U.S. gallons. Thus, we have a major trans-oceanic shipping route passing through North America's largest fishing grounds in an area notorious for adverse marine weather. Numerous oil spills of note from vessels have occurred, including the 2004 spill from *M/V Selendang Ayu* at Unalaska Island⁽⁹⁾.

Roberts Bank Terminal 2 would add an additional 1,000 container ship transits annually.

Regards,



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Appendix A, Ship Traffic

Large Ship Transits through the Gulf Islands and San Juan Islands from Metro Vancouver

	Number of Ship Transits
Current (container, bulk carrier, tanker) ⁽¹⁰⁾	~5,600/year (>15/day)
Confirmed additions (under construction):	
Neptune Terminals upgrade (coal) ⁽¹¹⁾ Scheduled completion: 2014 (Coal from eastern BC by rail to Vancouver)	100/y
Deltaport/Roberts Bank upgrade (containers) ⁽¹²⁾ Scheduled completion: 2014	300/y
Proposed additions:	
Fraser Surrey Docks project (coal) ⁽¹³⁾ (Coal from Wyoming to be shipped by Burlington Northern-Santa Fe railway through the US, entering Canada just north of Bellingham WA) Proposed completion: 2014	est. 70/y
Kinder Morgan (tankers - tar sands bitumen) ⁽¹⁴⁾ Trans Mountain Expansion project Proposed completion: 2017	700/y
Deltaport/Roberts Bank Terminal 2 (containers) ⁽¹⁵⁾ Proposed completion: 2024	>1,000/y
Total 2024	~8,000/y (~22/day)

References

- (1) Agencies set scope of environmental impact assessment for proposed Cherry Point export project, Washington State Department of Ecology, July 31, 2013 www.ecy.wa.gov/news/2013/197.html
- (2) Friends of the San Juans, Scoping Comments for GPT/BNSF Custer Spur EIS, January 2013
- (3) Nuka Research & Planning Group, LLC, West Coast Spill Response Study, July 2013
- (4) Fisheries and Oceans Canada, Recovery Strategy for the Northern and Southern Resident Killer Whales (*Orcinus orca*) in Canada, Final - Amended, August 2011
- (5) Ecojustice, www.ecojustice.ca
- (6) Gaydos, J.K. and N.A. Brown, Species of Concern within the Salish Sea: Changes from 2002 to 2011, Proceedings of the 2011 Salish Sea Ecosystem Conference, October 2011, Vancouver, BC
- (7) NABCI Canada, State of Canada's Birds 2012
- (8) Gillespie, A., Risk of Aquatic Invasive Species associated with Vessel Traffic, Scoping Memorandum Concerning the Pacific Gateway Terminal, for Friends of the San Juans, January 2013
- (9) Nuka Research & Planning Group, LLC, Vessel Traffic in the Aleutians Subarea, report for Alaska Dept. of Environmental Conservation, September 2006
- (10) Port Metro Vancouver, 2012 Statistics Overview Report, www.portmetrovancover.com
- (11) Port Metro Vancouver, Neptune Terminals Upgrades Coal Handling Expansion, January 2013
- (12) Port Metro Vancouver, Deltaport Terminal, Road and Rail Improvement Project, www.portmetrovancover.com
- (13) Port Metro Vancouver, Fraser Surrey Docks Direct Transfer Coal Facility, November 18, 2013
- (14) National Energy Board, Trans Mountain Pipeline ULC - Trans Mountain Expansion, September 2013
- (15) Port Metro Vancouver, Roberts Bank Terminal 2 Project, www.portmetrovancover.com
Note: Ship traffic due to Terminal 2 cannot be predicted accurately because of possible changes in average vessel size over the next decade.