

BOUNDARY BAY CONSERVATION COMMITTEE

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The Honourable George Heyman
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22 April 2020

RE: **Roberts Bank Terminal 2 Project (#80054)**

Dear Minister Wilkinson and Minister Heyman:

Current Process on the Project:

On 27 March 2020, two documents on this Project were released:

- Federal Review Panel Report Roberts Bank Terminal 2 Project, and
- Federal Review Panel Report Summary of Key Findings

On 3 April 2020, The Minister of Environment and Climate Change extended the time limit for the Decision Statement on the proposed Roberts Bank Terminal 2 Project by 90 days to recognize the extenuating circumstances arising from the COVID-19 pandemic and its impacts to communities, businesses, and stakeholders.

On 7 April 2020, the project proponent, the Port of Vancouver Fraser Port Authority (Port), published its *Response to the Panel Report*.

Thank you for your 90-day extension on this important project decision. There is no mention of a period for **the public as “stakeholders”** to respond to the Panel Report as the Proponent did on April 7th. But members of the Boundary Bay Conservation Committee (BBCC) have been giving input on the Roberts Bank ecosystem and the environmental issues arising from continued port expansion here for over 40 years. Given our experience and our efforts to have Roberts Bank designated and protected, with due respect we are compelled to inform the Minister of some **errors in the CEAA Panel Report and to question some of the logic of the Report**.

First, the BBCC would like to thank the Federal Review Panel for their comprehensive list of **“significant adverse and cumulative effects”** in their *Summary of Key Findings*.

1. The Panel Summary states:

“The Project is located on Roberts Bank in the Fraser River estuary, an ecologically productive and sensitive area of coastal British Columbia. Roberts Bank is located on the Pacific Flyway for migratory birds and is adjacent to a provincial wildlife management area and **an international Ramsar site.**”

BBCC Response:

- a. Roberts Bank is **not** “adjacent to a provincial wildlife management area”. Roberts Bank is **the Roberts Bank Wildlife Management Area (RBWMA)**.

NOTE: the Port delayed the declaration of the RBWMA for 12 years so that it could develop the Deltaport Third Berth Terminal.

- b. **Is Roberts Bank Bank a Ramsar Site?** That is splendid news if true; we have seen no announcement of this. **When was it declared?** BBCC has been pushing for this since 2012 because Roberts Bank is front and centre of the Fraser River Estuary in which all the other sites were declared a Ramsar site in 2012.

NOTE: the Port has delayed this declaration for Roberts Bank for eight years.

- c. BBCC is shocked that the Panel has not included all the **international and national designations and the provincial protections** that have been declared for Roberts Bank since 1961 (please see Appendix 1).

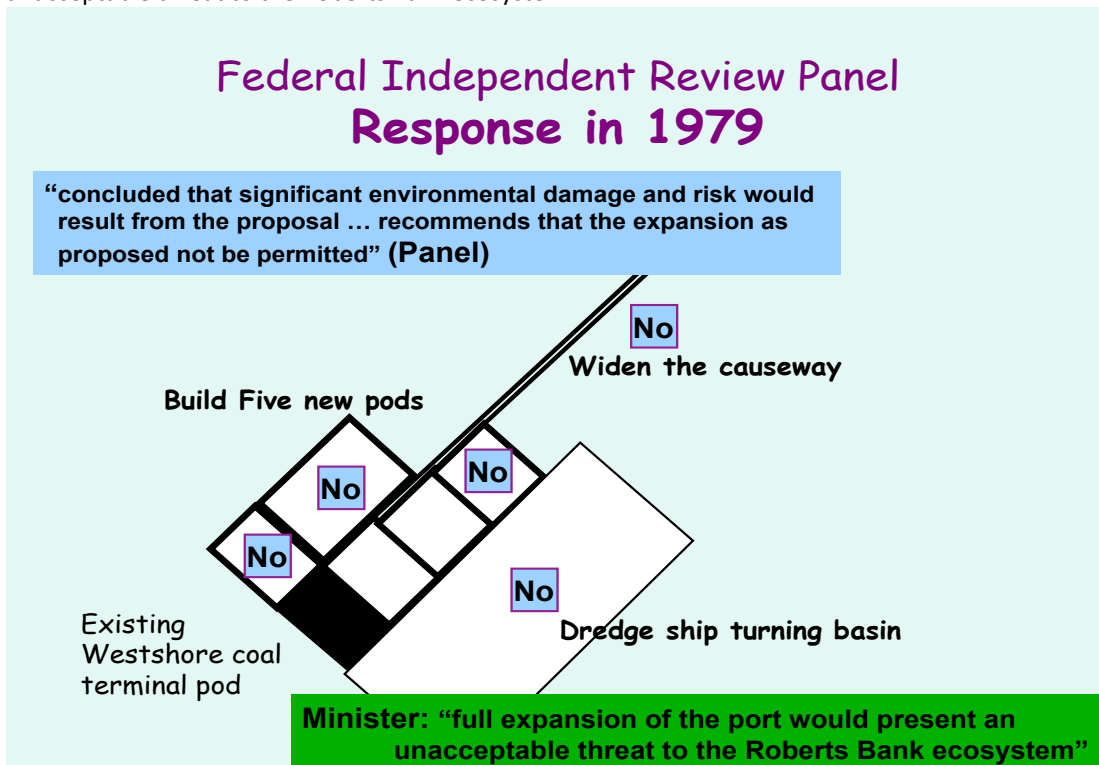
2. The Panel Summary states:

“The Panel concludes that the Project would result in **numerous adverse residual and cumulative effects**.... There would be **significant adverse and cumulative effects** on wetlands and wetland functions at Roberts Bank.”

These are laudable strong statements, why are there no logical conclusions drawn from them?

Forty years ago in 1979, a six-member Federal Environmental Assessment Review (FEAR) Panel on Port expansion made similar statements but it went on to act logically and “concluded *that the potential impacts on the Fraser River estuary ... 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.*”

The Minister of the Environment in 1979 agreed and stated “full expansion of the port would present an unacceptable threat to the Roberts Bank ecosystem”.



In spite of the Minister's and the CEAA Panel's recommendations the Port has since expanded twice and developed the whole area that was covered by the 1979 FEAR Panel Review. First, in violation of the specific "No" areas on the sketch map, the Port built two huge pods, one of which was empty for 10 years and the other for 15 years. They built two pods on the north side and widened the causeway, they dredged and enlarged the ship turning basin destroying vital inter-causeway habitats. Second, twenty years later they built Deltaport Third Berth higher up the shore on the south side thus violating the last "No" go area on the sketch map and destroying more habitat.

In 2003, in response to the proposal for **Deltaport Third Berth**, the Department of Fisheries and Oceans (DFO) stated that it **"...will not be involved in any review of the Delta Port proposal as the only option proposed for that project results in the destruction of critical fish habitat ...because of the critical value of the fish habitat in the area of the proposed expansion, DFO would not be able to issue a Fisheries Act Sec. 35(2) authorization for the destruction of habitat."**

Further, in 2005 also in response to the same proposal, Environment Canada stated that it **"has substantive concerns with the Deltaport Third Berth proposal, in particular because of the risk that it will act cumulatively and negatively with existing project impacts upon the marine habitat and fish and wildlife assemblages of Roberts Bank ... there would be public outrage as well as agency embarrassment on an international scale"**.

Now 20 years later the Port wants to nearly double the port on Roberts Bank. How is this piecemeal development possible in the light of the internationally recognized environmental values of Roberts Bank (Table 1) and the expert 1978 FEAR Panel's recommendations? Terminal 2 must not be built.

3. The Panel Summary states:

a. "One of the ecosystem components that drives the high productivity of Roberts Bank is biofilm, which is consumed by western sandpipers and other shorebirds during their migration stopovers.

BBC would like to emphasize that the **biofilm on Roberts Bank is vital** to many of these long-distance migrants (**50 species of shorebirds** have been recorded in the Fraser River estuary). This is why it protected as a Hemispheric Site by the Western Hemisphere Shorebird Reserve Network (See Appendix 1). The birds rest and feed here, the largest stopover on the Pacific Flyway. If the biofilm is compromised in any way it is possible that these migrants cannot make it to their next-stop over on the flyway and potentially, in the case of the Western Sandpiper, endangering the species whose world population may pass through the Fraser River Estuary on their way north in spring.

b. The Panel goes on to say: "The Panel **concludes that the Project would not have an adverse effect** on biofilm productivity and diatom composition." (Emphasis added)

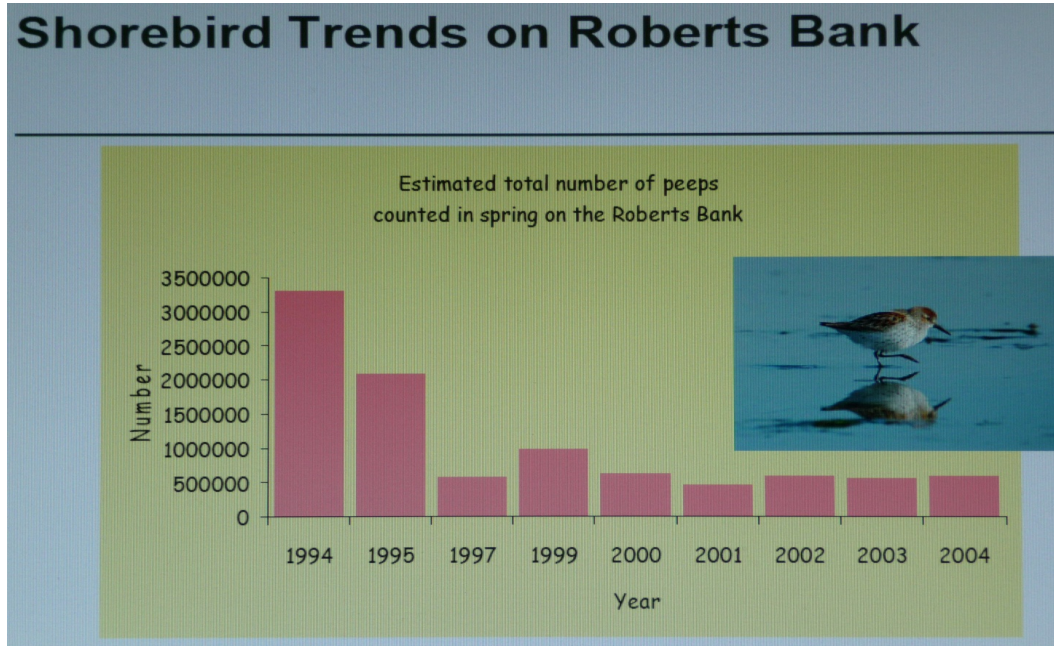
Yet the in the very next sentence: "However, the Panel **cannot conclude with certainty about Project effects on polyunsaturated fatty acid production in biofilm, a potentially critical nutritional component for western sandpiper ... the Panel is unable to conclude with reasonable confidence that the Project would or would not have a residual adverse effect on western sandpiper.**"(Emphasis added)

Given this statement how can the Panel logically "conclude **no "adverse effect" in the first sentence?**

This makes a farce of the Canadian Environmental Assessment Act and the **precautionary principle** which states that: "**Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation**". Further, given the number of migrating shorebirds on Roberts Bank, what is the Panel's responsibility to the Canadian Environmental Assessment Act 2012 **Section 5**. "a change that may be

caused to the following components of the environment that are within the legislative authority of Parliament: ... (iii) **migratory birds as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994***”?

Given the above and this data from Environment Canada,



(“peeps” are small shorebird species), The BCC recommends that there should be **no further Port development on Roberts Bank so the proposed Terminal 2 project must be rejected.**

Historically, in spite of the assessment by CEAA 1978 and the comments by agency experts, the Port went ahead with piecemeal development on Roberts Bank: in the early eighties **construction of three 30ha pods**, early nineties **development of Deltaport, expansion of Deltaport**, early 2000 **construction and development of the Third Berth and currently Deltaport Terminal Road and Rail Improvement Project**. Each had follow-up programs that have not been done and no one has called the Port to account.

To give just one example that continues to be a serious but fixable environmental issue that will be exacerbated by yet further development as proposed for Terminal 2. **Bird mortality on overhead wires** along the causeway: the wires run at right angles to the flight paths of all birds using the Roberts Bank foreshore. Birds are killed and injured as they hit the wires. This issue has been an historic concern throughout Port development.

The Port’s own Project Environmental Review Panel Report (1996) clearly stated what should be done about the transmission lines on Roberts Bank: “The **Panel believes that ongoing mortality of birds is unacceptable**” Specifically they recommended that partners on Roberts Bank “**develop and implement a strategy and phase out overhead power lines on the Roberts Bank causeway by the year 2002.**”

Since then, the port went ahead with Deltaport Third Berth and in 2012 with its *Deltaport Terminal Road and Rail Improvement Project* and has **not buried the overhead wires** along the Roberts Bank causeway even though it is now **18 years past the date when this mitigation measure** was supposed to have been done?

4. The Panel Summary makes a long list of “**significant adverse and cumulative effects**” on wildlife:

- **“Barn owl**, a species listed as threatened under the *Species at Risk Act*, **would be subject to significant cumulative effects.**
- There would be **significant adverse and cumulative effects on Dungeness crab** as well as **ocean- type juvenile Chinook salmon** originating from the Lower Fraser and South Thompson Rivers.
- These **juvenile Chinook** reside temporarily in the vicinity of the Project and **would be subject to migration disruption by the terminal footprint and Project-related effects** on the underwater acoustic and light environments.
- **The Project would cause significant adverse and cumulative effects on SRKW** through a small loss of legally-defined critical habitat, reduced adult Chinook salmon prey availability and a minor increase in underwater noise.
- In the absence of mandatory mitigation measures to reduce underwater noise from marine shipping associated with the Project, there would be **further degradation of SRKW critical habitat.** Although unlikely, a lethal vessel strike on a single individual SRKW could have significant adverse population consequences.”

BCC notes that the Southern Resident Orcas are endangered; Chinook Salmon are their major food supply and their populations are crashing. Juvenile Chinook have been facing migration disruption from the causeways on Roberts Bank since Port development on Roberts Bank. Over the years, fishermen have asked that the Port mitigate this by cutting channels through the causeway but the Port has never cooperated. The cumulative effects of Terminal 2 will exacerbate these effects and lead to further degradation of wildlife habitat.

The BCC suggests that the only way all these environmentally “significant adverse and cumulative effects” can be mitigated is simply to not allow the Port to develop Terminal 2.

5. The Panel Summary makes a long list of effects and **cumulative effects on the quality of life:**

“The Panel’s assessment concludes that there would be **effects on the quality of life of local populations**, including health and quality of experience during commercial and recreational activities:

- The Project would result in a **residual adverse effect on daytime and nighttime visual resources** and on outdoor recreation **as well as a significant cumulative effect.**
- **Residual adverse effects** of the proposed expanded Navigational Closure Area during both construction and operations would combine with the adverse effects of the existing Navigation Closure Area and cause a **significant cumulative effect** on the Area I commercial crab fishery.
- During the operational phase, the Project would result in a **significant adverse effect and a cumulative effect on human health** based on predicted exposures to 1-hour average NO₂ and other respiratory irritants.
- The Project would result in a **significant adverse cumulative health effect due to noise.** Elements of **stress and annoyance related to light, noise and dust are already present** in the Local Assessment Area and **the Project has the potential to exacerbate these conditions.**
- The Panel further concludes that the **Project would likely cause a significant adverse effect and a significant cumulative effect on agricultural land** use due to the loss of a small area of land contained within the Agricultural Land Reserve.
- If a worst-case oil spill were to occur in the marine shipping area, it could result in potentially **significant adverse residual effects for vulnerable species** such as SRKW and marine birds, marine commercial and recreational activities, current use, cultural heritage and health of Indigenous groups.
- The Panel concludes that construction and operations of the Project would contribute to **additional greenhouse gas emissions** in the Metro Vancouver area, **even after the application of mitigation measures.** This contribution would result in a **significant adverse cumulative effect.”**

If Canada is serious about reducing global greenhouse gas emissions and wants to act on the “significant

adverse effects” and “significant cumulative effects” on the local community listed above and which are mostly beyond mitigation, BBCC suggests that the only responsible action is simply to not allow the Port to develop Terminal 2 on Roberts Bank.

6. The Panel Summary with regard to **compensation habitat** states that:

“The proposed offsetting plan for aquatic species, totaling **29 hectares, would be insufficient** to compensate for the reduction in productivity associated with a Project-induced **habitat loss of 177 hectares of Roberts Bank.**”

BBCC suggests that this cannot be achieved. Further, we advise the Minister to stop the Port destroying any more habitats in the Fraser River Estuary Ecosystem in the name of habitat banking to compensate for the habitat they are destroying on Roberts Bank. These areas such as Boundary Bay and Sturgeon Bank are already healthy habitats so the Port is compounding their own contribution to habitat loss by destroying and/converting these areas. Essentially, instead of no net loss aren't we heading towards doubling the loss of habitat in this world-class wetland ecosystem of the Fraser River Estuary? Besides, doesn't **the Port have “a federal mandate to protect the environment and consider local communities”?**

7. Local Community, Cumulative Air Pollution and the COVID-19 Pandemic

Each year across the globe air pollution is responsible for more than 400,000 deaths from pneumonia. It was learned from the 2003 SARS experience that elevated air pollution exposure doubled the risk of death in those who had the SARS-CoV-1 virus.

So far in the current COVID-19 outbreak the two locations on the planet with the highest death rates are Wuhan, China and the Lombardy and the Emilia-Romagna regions of northern Italy. Both areas have some of the poorest air quality in the world. In fact, researchers at Harvard University say **“a small increase in long-term exposure to PM2.5 leads to a large increase in the COVID-19 death rate”**. These tiny inhalable particles are emitted by vehicles that burn diesel and bunker fuels such as ships, trains and trucks.

It is outrageous that the cumulative air pollution in the restricted airshed of the lower mainland of Vancouver and the Fraser Valley does not appear to have been properly assessed. Examples quoted from the Federal Review Panel Report:

1. The Proponent used **one air quality monitoring Station in Tsawwassen (T39)** to measure background air quality. “In response to concerns raised, the Proponent indicated that adding data from other monitoring stations would artificially inflate the background levels”.
2. Metro Vancouver states clearly that **“the use of additional air quality stations which better represent industrial and port activities would have improved the assessment.”**
3. “The BC Ministry of Health and Health Canada also questioned the adequacy of station T39 in providing appropriate background **levels for coal dust and particulate matter especially for receptors that might be closer to the terminal** than the T39 air quality station.”
4. “Metro Vancouver and Environment and Climate Change Canada (ECCC) considered that **the air quality modeling domain was too small** and did not capture accurately dispersion of pollutants and the complex movement of pollutants in this region.”
5. “ECCC noted that limiting the model domain size and representing all regional sources with one background value **did not provide enough information to determine the full effect of the Project on regional air quality.**”

6. “Metro Vancouver and ECCC were concerned that the Proponent had used only **a single year of meteorological data, 2010, for the dispersion model**. Metro Vancouver noted that **2010 appeared to not be representative of typical weather patterns in the region**... the use of three years of meteorology would have addressed their concern, explaining that multiple years of meteorology was meant to capture a broad range of possible weather conditions that may **impact dispersion of pollutants** and increased the likelihood that expected weather patterns were captured at some point in the dispersion model.”

7. “ECCC also **disagreed with the Proponent’s assumptions and methods used to calculate model bias**. ECCC suggested that the air quality assessment should have applied a more rigorous statistical approach using time-matched values of observed and modeled concentrations of NO. ECCC noted that modeling of more than one year would allow for a complete assessment of the Project’s effects on air quality.”

8. Metro Vancouver and ECCC stated that the Proponent should have used CAAQS* coming into effect in 2020 and 2025... ECCC also noted that the CAAQS were developed in consideration of **both human health and the environment**.

*** Canadian Ambient Air Quality Standards (CAAQS) are the driver for air quality management across Canada. CAAQS for nitrogen dioxide were recently endorsed by ministers. CAAQS have also been developed for, sulphur dioxide, fine particulate matter and ozone.**

Thank you to the Review Panel for capturing the input from the responsible agencies on the inadequacy of the Port’s assessment of the **impact of cumulative air pollution from their T2 Project**. BBCC asks why didn’t the Panel conclude on the issue of air pollution alone that no more port development should take place on Roberts Bank?

BBCC notes that in California Port ships have to turn off auxiliary engines for most of a vessel's stay in port and they connect the vessel to some other source of power, typically electric shore power. The Port does not appear to be converting to shore power on Roberts Bank. Further, it has been reported that the Port may be allowing ships to switch to dirtier fuels at night when it is difficult for the public to see the ship exhausts on Roberts Bank.

The air monitor for Roberts Bank was removed from the BC Ferry Terminal when it expanded in the early 1990s and has not replaced even though the Port was requested to do so on several occasions.

E.g. The Port’s 1996 Review Panel for Cargill’s proposal for a grain terminal on Roberts Bank recommended (#6) that all partners on Roberts Bank **“immediately undertake an emissions inventory and analysis of dust samples in the Roberts Bank area to establish baseline information on emission levels and their sources”**. The Panel also recommended (#7) that all partners **“arrange with the GVRD to re-establish air quality monitoring station(s) in the vicinity of Roberts Bank in support of long-term air quality modeling and monitoring”**. This is 25 years ago. BBCC suggests this is why “recommendations” do not work with the Port on Roberts Bank. If the Port had followed through then there would now be good data on which to base forecasts, models, predictions and assessment of the impact of Terminal 2 on air pollution (from ships, trucks and trains). The Port is putting at risk the health of people in the local community, Greater Vancouver and the Fraser Valley and causing further reduction in local crop yields.

Conclusion

The Panel has produced a comprehensive list of significant adverse and cumulative effects on the environment and a list of significant cumulative effects on the quality of life in the local community that will result from the Port’s Terminal 2 Project on Roberts Bank. They have also exposed the complete inadequacy of the Port’s assessment of air quality and pollution that will result from Terminal 2.

Instead of concluding that the Terminal 2 Project should be rejected, The Panel has produced a list of 71 Recommendations. Given the Port's record on "Recommendations" as regards their developments on Roberts Bank, most of these will be ignored and no one will call on them to account.

BBCB would just like to reiterate that the Terminal 2 project is proposed for the most significant wildlife site in Canada. Roberts Bank is front and center of the Fraser River Estuary in British Columbia, Canada. It is the vital link in a chain of globally significant, wetland habitats at the mouth of the greatest salmon river in the world, the Fraser River. The adjoining delta has some of the last tracts of farmland in the Lower Fraser valley. The remaining wetland habitats in this priceless estuary ecosystem:

- **have international significance** as a major stopover on the Pacific Flyway for up to five million migrant birds from at least twenty countries,
- **nationally** constitute the most important wintering area in Canada for waterfowl, shorebirds and birds of prey that use the mosaic of habitats from the foreshore to upland farmland, and
- **host the endangered population of Southern Resident Orcas** that feed off Roberts Bank in the Georgia Strait and which spend at least half the year in Orca Pass between the Canadian Gulf Islands and the American San Juan Islands in the centre of the shipping route to and from the Roberts Bank ports. Vulnerable populations of Great Blue Herons and Barn Owls live here.

The Federal Review Panel has produced a comprehensive list of significant adverse and cumulative effects on these habitats and on the local communities of further Port development on Roberts Bank. The Panel and the responsible agencies have shown that the Port has failed to assess adequately the vital issue of cumulative effect of air pollution for the Terminal 2 Project. The BBCB advises the Minister to reject the Port's Terminal 2 Project on Roberts Bank.

BBCB suggests that Canada's future port needs can be met by careful site selection. We should not be expanding a port into globally significant habitats or at the mouth of a restricted airshed where the health effects of polluted air from ships, trucks and trains threatens the health of a large population. Trade is unpredictable so port expansion should be incremental. Finally, Canada has a global responsibility to reduce greenhouse gas emissions so any future port development should be done at ports that are closer to SE Asia. At the public hearings into Terminal 2, BBCB was not allowed to suggest other sites that might be a better fit to such criteria but we suggest that Prince Rupert should be considered.

Yours sincerely,

Mary Taitt
Director, BBCB

Appendix 1. A Summary of Protection and Designation of Roberts Bank since 1961.

| Protection | Date | Area | Purpose | Authority |
|---|-------------|--|---|------------------------------------|
| Ramsar Site for Fraser River Delta | 2012 | 20,682 ha But excluded Roberts Bank? | A wetland of international significance | Ramsar |
| Wildlife Management Area | 2011 | 8,704 ha After 15 year delay! | To conserve the ecological integrity of Roberts Bank in perpetuity | Crown (Provincial) |
| Hemispheric Site in Western Hemisphere Shorebird Reserve Network | 2004 | Fraser Estuary: Boundary Bay, Roberts Bank and Sturgeon Bank | Roberts Bank is the central link of the chain of the shorebird sites in the Fraser Estuary. | WHSRN Program |
| Globally Significant Important Bird Area * | 2001 | Fraser Estuary: Boundary Bay, Roberts Bank and Sturgeon Bank | Roberts Bank is front and center of the Fraser Estuary habitats that form the most important IBA out of 597 sites in Canada | BirdLife International designation |
| Order-in-Council 908 No. 2405647 Environmental Impact Assessment | 1977 | 24,580 ha all of Roberts Bank and south to the USA/Canada border | Its natural environmental significance to British Columbians | Crown (Provincial) |
| Provincial Reserve No. 0228783 OIC 2374/1961 | 1961 | 9545.6 ha of land, foreshore, and land covered by water | Reserved for game management purposes under Section 11 | Crown (Provincial) |

* In 2019 Birdlife International declared that this IBA is in danger because of Port development on Roberts Bank; the natural functioning of the Fraser River estuary is being undermined. Cumulative impacts could lead to ecosystem collapse in the near future.