

Roberts Bank Terminal 2 Project (RBT2)
Analysis of the Federal Environmental Assessment Panel Findings and Next Steps
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April 23 2020

1. Overview

The Federally appointed Environmental Assessment Review Panel for the Vancouver Fraser Port Authority (VFPA) RBT2 project submitted its report to the Minister of Environment on March 27 2020. It was made public on March 30. (Appendix #1 and #2)

In that Report the Panel made it very clear, by stating that RBT2 is likely to cause significant adverse environmental and cumulative effects in many areas of environmental concern, even taking into account the implementation of the mitigation measures. However in making its recommendations, the Panel is silent as to whether the significant adverse environmental effects are justified, which clearly they are not. Rather, all the Panel relies on is further study, research, monitoring, and follow up.

In making its report the Panel decided to restrict the assessment of project alternatives to areas under which the VFPA has jurisdiction. As a result the Panel refused to consider other locations for container terminal expansion, specifically ignoring Prince Rupert where there is sufficient capacity and expansion potential such that RBT2 will never be needed to satisfy Canada's future trading needs.

2. Environmental Concerns

The Panel identified the following areas of environmental concern with adverse effects to:

- Wetlands and wetland functions at Roberts Bank, including negative effects from causeway expansion.
- Dungeness crab.
- Juvenile Chinook salmon transitioning from the Fraser River to the ocean.
- Southern Resident Killer Whales – listed as an endangered species.
- Forage fish – sand lance and surf smelt.
- Barn owls – listed as an endangered species.
- Diving birds (but the Panel concludes it is OK because they can go elsewhere!).
- Great blue heron and barn swallows (if mitigation measures do not work).

Importantly the Panel concluded that the proposed offsetting plan submitted by VFPA for aquatic species would not be sufficient to compensate for the reduction in productivity associated with the habitat loss of 177 hectares on Roberts Bank.

The Panel made a glaring error regarding biofilm. The report states that RBT2 would not have an adverse effect on biofilm productivity and diatom composition. But then the report states the Panel was unable to conclude with certainty about effects on polyunsaturated fatty acid production in biofilm, whilst also noting it is potentially a critical nutritional component for the Western Sandpiper. In addition the Panel said that, due to recent and still-emerging scientific understanding of biofilm, it was unable to conclude with reasonable confidence whether RBT2 would have a residual adverse effect on the Western Sandpiper. These two panel observations are in direct conflict with each other.

They cannot say on the one hand there is no adverse effect on biofilm but then on the other say they are uncertain about the effects on polyunsaturated fatty acid production in biofilm and cannot determine the consequences for the Western Sandpiper. This destroys their argument and makes no sense.

Environment Canada scientists have repeatedly stated, based on years of research, that there will be a negative effect that will be immediate, continuous and cannot be mitigated (Appendix #3). Not only that but experts in wetlands habitat (Baird and Beninger Appendix #4 and #5) supported the Environment Canada position in presentations to the public hearings. In addition and importantly the Panel agreed with Environment Canada that there is no known way to mitigate for biofilm loss, nor to either replace or compensate for the mudflats supporting biofilm relied on by shorebirds.

Furthermore the likelihood of significant adverse environmental effects to Western Sandpipers, as identified by Environment Canada, has been confirmed by a recent scientific paper by Professor Schurr et al - "The peak abundance of fatty acids from inter-tidal biofilm in relation to the breeding migration of shorebirds" published in *Frontiers in Marine Science* (Appendix #6). This paper makes it clear, Environment Canada scientists have been right all along. Biofilm and its peak in richness will be negatively impacted by RBT2 and will put Western Sandpipers and millions of shorebirds at risk.

So that leads to a key question. What evidence and facts did the Panel rely on in declaring that there was no impact on biofilm? Clearly it was neither scientists from Environment Canada, nor independent experts (i.e. not paid for by VFPA). Not one scientist, expert in wetlands, migratory birds and biofilm, has supported the VFPA science at any point in the environmental assessment. Neither do any of the Panel members have that level of expertise. The Panel makes several ridiculous recommendations:

- That the VFPA, in collaboration with Fisheries and Oceans Canada and Environment and Climate Change Canada, be required to include identification of sources and dynamics of polyunsaturated fatty acid production in its salinity and biofilm monitoring follow-up program.
- The Panel recommends that the Proponent be required to, in partnership with Environment and Climate Change Canada, develop a plan to address potential adverse effects on polyunsaturated fatty acid production, which would include:
- (i) a plan to continue biofilm research during the northern migration period of Western Sandpiper for the duration of construction and the first 3 year of operations
- (ii) review of biofilm sampling and statistical methodology

The Panel appears to have been confused over how to reconcile the significant cutting edge science presented by Environment Canada as well as two leading experts in wetland habitat against the massive affirmative, consultant-driven studies paid for by the Port, wherein they denied any significant effects to biofilm and the resultant implications to Western Sandpipers. The Panel stated that the RBT2 effects on biofilm "quality", fatty acids, the salinity trigger and the knock-on impacts to Western Sandpipers were uncertain and are calling for more science and monitoring during construction and into operation.

What is the point in research, monitoring and follow up, if the further studies and monitoring validate the long held Environment Canada concerns and/or throw up more uncertainties?

The irreparable damage will have already been done as soon as construction starts.

The only logical conclusion is that the Panel relied on the VFPA's own science, despite being specifically informed of its many shortcomings.

Why – have ulterior motives infected the panel findings?

Truly an egregious mistake that taints the report and its findings.

In addition the Panel identified many other areas of concern:

- Human health in the area (there is a large and growing residential development close by) as a result of pollution and exposure to NO₂, PM_{2.5} and other respiratory irritants. (Note – recent studies (Appendix #7 and #8) suggest that superfine particles, smaller than PM_{2.5} are an even more serious irritant because they go deeper into the lungs).
- Human health effects resulting from increased noise and lighting caused by RBT2.
- Negative recreational effects on land and water.
- Negative effects to the use of lands and associated cultural heritage by First Nations.
- Negative effects to the local commercial crab fishery.
- Increased greenhouse gas emissions in Metro Vancouver

Despite all this not one of the Panel's recommendations suggest that the RBT2 project should be turned down. Amazingly all 71 of their recommendations are focused on:

- further studies
- conducting emissions inventories
- monitoring
- follow up
- ongoing measurements of negative effects
- adaptive management
- mitigation
- offsetting and habitat replacement in other areas
- annual and more frequent reporting
- solution oriented complaint resolution
- compliance with the most stringent standards
- long term program for environmental management of the Fraser Estuary and Salish Sea

We know from actual experience that many of these do not work:

- VFPA has a noise, light and air pollution complaint reporting procedure in operation today for its Roberts Bank operations. It is totally ineffective. Not once, not ever, has any complaint resulted in changed operations or behaviours.
- Nothing has been done over many years to reduce PM_{2.5}. It is an ongoing problem and much of it is caused by truck and rail traffic (Appendix #8), which VFPA claims is nothing to do with them.
- Light pollution complaints always get overridden by onsite safety standards
- Habitat compensation for other port projects has been a failure. In some cases planted vegetation died. In one instance against advice of wetland experts a compensation project wrongfully removed logs from Boundary Bay with no improvement whatsoever. After that the snowy owls never returned.
- VFPA is infamous for not following through. For example it has had a long standing and firm recommendation to bury the overhead powerlines on the causeway – which are dangerous to birds – going back 20 years. It has refused to do so. (Appendix \$9).

- The ECHO program is largely useless. The SRKW population continues to decline and is on the brink of going extinct
- Environment Canada is on record since 2005 that further port development at Roberts Bank could break the chain of the Pacific Flyway. No amount of long-term environmental management programming will be of any use if RBT2 does cause the flyway to collapse. (Appendix #10).

Furthermore it is obvious that many of their other recommendations will not work: either:

- No point in monitoring negative effects on wildlife when the impact in many cases is immediate, continuous and cannot be reversed.
- No point in monitoring and detecting exceedances if there is no means to correct them.
- Roberts Bank is very close to a very large Heronry. Measuring effects on the heron population is useless if there is no means for correction.

3. VFPA Response to the Panel Report

Their response to the Panel report (Appendix #11) is very brief and fails to mention many of the negative effects that the Panel identified. Strangely, VFPA says that they are pleased with the review panel's findings. They go on to say that they can mitigate the effects from RBT2. But then they acknowledge that the Panel has identified effects on SRKW, juvenile salmon that previously VFPA has downplayed. More importantly they are silent on the many other negative environmental effects that the Panel has identified.

It is apparent that they were not expecting the damning levels of negative impacts identified by the Panel. So now, desperate to get this project approved, VFPA is asking for federal government funding, ridiculously justifying it as support for the Covid-19 economic recovery.

4. The Decision

The environmental assessment legislation (CEAA 2012) now requires the Minister of Environment to issue a decision statement. Shortly after the report was issued the minister used his authority to delay the timeline for making a decision (Appendix #12). That decision is not now required until November 23 2020.

What is the decision? It is not a political decision it is a decision made by politicians based on science and facts. The science is clear. The business facts are clear. To build RBT2 would be a bad business decision and a very damaging science decision.

Who makes the decision? Given the very precise wording of CEAA 2012, The Minister of Environment must decide if taking into account the implementation of mitigation measures is RBT2 likely to cause significant adverse environmental effects. The Panel report answers that - yes RBT2 will result in adverse environmental effects and no they cannot be mitigated.

In that case the Minister must then refer the decision to the Governor in Council (Cabinet) to determine whether the significant adverse effects are justified. Even though the Panel chose to duck the issue of alternatives to RBT2 there is plenty of evidence that demonstrates there are better and less environmentally damaging alternatives.

There are two aspects to justification for RBT2 in light of the significant adverse environmental effects already identified. One is the project cost. This project is government funded – VFPA is a government agency. Can a cost of \$3.5 to \$4.0 billion (Appendix #13) be justified to build what would become the most expensive container terminal - \$1,000 plus per container (TEU) – anywhere in the world?

The second is that of terminal capacity versus growth in volumes. VFPA maintains that there is a capacity crunch coming and that the west coast will soon – by 2025 – run out of capacity to handle containers. This is simply untrue. The statistics show otherwise. Furthermore VFPA consistently underperforms against its container forecast. It has missed every one of its last five forecasts.

VFPA handles significant volumes of US containers – at least 25 percent of its total volume. This US traffic does nothing for the Canadian economy. VFPA has recently lost some of that US traffic, due to the port blockades and now the pandemic. This US traffic is discretionary and it is likely that VFPA will not get it back. VFPA container growth has been lacklustre, with an annual compound growth rate for the last ten years of less than 3 percent. In 2019 VFPA saw no container growth versus 2018, yet Prince Rupert, having seen double-digit growth since it opened, increased its 2019 volumes by 17% over 2018. In Q1 2020 VFPA volumes are down by 13 percent (Appendix #14) compared to Q1 2019. By comparison Prince Rupert in Q1 2020 is only down 4% (Appendix #15).

Industry research and reports (Appendix #15) now suggest that 2020 container volumes will be off by at least 6 percent through to Q4 2020. Given the loss of US traffic, the overall decline in container volumes, the expanding capacity in Prince Rupert and current expansions at other VFPA terminals the justification for RBT2 is simply not there. There is and will be sufficient container terminal capacity on the west coast to satisfy Canada's trading needs for many years to come. Even more so with the change that the pandemic has caused, container traffic will be impacted for many years to come and this will likely result in realignment of trade and trade routes.

5. Conclusion

Even though the Panel made errors, especially concerning biofilm, their report is damaging enough in terms of significant adverse environmental impacts. The conclusion, based on science, facts, past performance and forecast growth is clear. The significant adverse environmental effects resulting from RBT2, which cannot be mitigated, are not justified. The Precautionary Principle must apply. The Cabinet must deny the approval for RBT2.

6. Action/Next Steps

Suggest groups and individuals take the following actions:

1. Issue a Press Release identifying the negative issues in the Panel report and demanding project approval be denied.
2. Groups and Individuals (especially in the Lower Mainland), send a letter to Minister Wilkinson (Environment), cc. Ministers Jordan (DFO), Garneau (Transport) and Qualtrough (also MP for Delta), as well as their own MPs. This letter needs to go well in advance of the ministerial decision date and ask them to support denial of the project's approval.
3. Also write to the Ontario Federal Liberal Caucus, pointing out if RBT2 is approved another \$4.0 Billion in federal funding may be going to the West.

Appendix

1. Panel Report – March 27 2020.
<https://iaac-aeic.gc.ca/050/documents/p80054/134506E.pdf>
2. Summary of Findings March 27 2020.
<https://iaac-aeic.gc.ca/050/documents/p80054/134507E.pdf>
3. ECCC Statement on Biofilm February 12 2018.
<https://iaac-aeic.gc.ca/050/documents/p80054/121632E.pdf>
4. Professor P. Beninger University of Nantes, Faculty of Science
Biofilm Dynamics April 13 2019
<https://iaac-aeic.gc.ca/050/documents/p80054/129234E.pdf>
Public Hearing Presentation May 16 2019
<https://iaac-aeic.gc.ca/050/documents/p80054/129733E.pdf>
Closing Remarks July 19 2019
<https://iaac-aeic.gc.ca/050/documents/p80054/131064E.pdf>
5. Professor P. Baird PhD, Simon Fraser University, Kahiltna Research Group
Fatty Acids, Diatoms and Shorebirds April 15 2019.
<https://iaac-aeic.gc.ca/050/documents/p80054/129294E.pdf>
Public Hearing Presentation: Biofilm and Diatoms and Shorebirds –
RBT2 The Essentials Ignored May 16 2019.
<https://iaac-aeic.gc.ca/050/documents/p80054/129830E.pdf>
Closing Remarks August 22 2019.
<https://iaac-aeic.gc.ca/050/documents/p80054/132505E.pdf>
6. Frontiers in Marine Science February 18 2020.
<https://www.frontiersin.org/articles/10.3389/fmars.2020.00063/full>
7. Air Pollution Feb 18 2020 Yuchi, W., Sbihi, H., Davies, H. *et al.* Road proximity, air pollution, noise, green space and neurologic disease incidence:
<https://ehjournal.biomedcentral.com/articles/10.1186/s12940-020-0565-4>
8. Near Road Study Southern Ontario Centre For Atmospheric Research University of Toronto 2019
<https://tspace.library.utoronto.ca/bitstream/1807/96917/4/Near%20Road%20Study%20Report.pdf>.
9. Overhead Power Lines – Still not buried.
<https://delta.civicweb.net/document/78785>
The Vancouver Port Corporation, BC Hydro and appropriate provincial and federal government agencies develop and implement a strategy to phase out overhead powerlines on the Roberts Bank causeway by the year 2002"
10. Environment Canada (EC), April 27, 2005: Environmental Assessment of Deltaport Third Container Berth at Roberts Bank in the Fraser Estuary: – Issues still Present in 2020.
https://www.againstportexpansion.org/uploads/images/file_view/Environment_Canada_DPNum3_Assessment_April_27_2005.pdf

Sec 2.1 Failure to properly assess coastal food web.

Sec 11.9 Habitat compensation failures.

Sec 23.5 Dendritic channels still a problem today.

Sec 23.6 Potential for eutrophication – lack of tidal flushing still a problem

Page 25 – Breaking the Chain of the Pacific Flyway.

“Given the international significance of Roberts Bank for migratory birds, and fish and wildlife generally, EC urges caution, and recommends a more detailed understanding of ecological impacts of past, present, and future planned projects, before any further changes are made to the system...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.”

11. VFPA Statement April 7 2020.

<http://www.robertsbankterminal2.com/news-updates/the-vancouver-fraser-port-authoritys-comments-on-the-federal-review-panel-report-for-the-roberts-bank-terminal-2-project/>

12. Delay in Decision Statement April 3 2020.

<https://iaac-aeic.gc.ca/050/evaluations/document/134523>

13. \$ 3.5 - \$4.0 billion to build RBT2

<http://www.robertsbankterminal2.com/wp-content/uploads/2019-12-09-VFPA-RBT2-Market-Sounding-Phase-1A.pdf>

14. Port of Vancouver Container Volumes

<https://www.portvancouver.com/wp-content/uploads/2020/04/Container-Statistics-Year-to-Date-March-2020.pdf>

15. Prince Rupert Container Volumes.

https://www.rupertport.com/app/uploads/CargoPDF/2020_March.pdf

16. Industry Research, Drewry et al

<https://www.drewry.co.uk>