

# Fraser Voices Review of the CEAA Panel Review Report on the RBT2 Proposal.

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## *Review of the March 27, 2020 CEAA (IAAC) Public Impact Panel Review Report on the Proposed Roberts Bank Terminal 2 Project - June 22, 2020*

Fraser Voices, other conservation groups, conservation agencies, First Nations and local governments have concluded that the CEAA Public Panel Review report on the proposed Roberts Bank Terminal 2 project does NOT serve as the scientific, economic, public values and common sense foundation for the approval of this project. Recent global events (e.g. COVID 19) must serve as a turning point in much of our thinking related to enjoyment and quality of life, environmental protection and global business as related to our Lower Fraser Valley community. The project is now at a more critical crossroad and should not be approved by our Federal or BC governments. Should more shipping capacity be needed in the future, alternatives to RBT2 do exist. It is strongly recommended that the taxpayer not support a project that in all probability will not be needed in the foreseeable future and destroy a diminishing natural habitat and the life dependent on it.



Hon. Jonathan Wilkinson  
Minister of Environment and Climate Change Canada  
House of Commons  
Ottawa, Ontario  
CANADA

June 22, 2020

Dear Mr. Wilkinson:

**Re: Fraser Voices\* Review of the CEAA Panel Report on the RBT2 Proposal.**

On April 11, 2020 Fraser Voices issued a Press release based on our early review of the March 27, 2020 Federal Review Panel Report on the Roberts Bank Terminal 2. A copy of that release is again attached for your information. In that we now have done a more complete review of this large report we take this opportunity to provide additional comments that support our initial review.

**1. Summary, Conclusion and Recommendation:**

As noted in our press release our detailed review and study of the report confirms the views of many public experts that feel:

- The Panel did succeed in identifying most of the obvious and potential significant negative and deleterious impacts of this development
- Unfortunately the Panel absolutely failed to understand how this development will compound the damage already done to overly stressed estuary by past development.
- Further, the Panel did not attempt to conduct an assessment of the impacts of RBT2 as related to all cumulative impacts affecting the estuary and indeed the entire Fraser River ecosystem which depends upon the river's estuary for its productivity.

*\*Fraser Voices is a Society dedicated to the protection and preservation of habitat, farmland, fish and wildlife, and our quality of life in and around the Fraser River and Estuary so as to assure a sustainable future.*



For instance salmon from Nechako and Stuart-Takla Rivers depend upon the estuary for survival and the First Nations in the Upper Fraser therefore depend upon the estuary to grow those fish and have them return to the upper Fraser River spawning grounds.

- The Panel determined that much work and mitigation may have to be determined well after the project is completed if planned mitigation work does not eliminate all residual adverse impacts. Further First Nations and environmental agencies are to do much of this work. This approach to mitigation is unacceptable. In addition much of the mitigation requires repurposing of other existing habitats in the estuary.
- The CEAA Panel substituted wishful thinking for sound judgment based on the science and experience associated with the effectiveness of impact mitigation works. Despite correctly determining many significant impacts the Panel then assumed that hopeful and often unproven fishery habitat mitigation measures could eliminate all impacts to insignificant and acceptable levels.

**Based on the comments of Fraser Voices, experts, federal and BC conservation agencies, First Nations and the concerns of local governments, the CEAA Review Panel Report does NOT serve as the scientific, economic, common sense and public values foundation for the approval of this project in any form as applied for by the Vancouver Fraser Port Authority.**

**Recent global events (e.g. COVID 19) must serve as a turning point in much of our thinking related to enjoyment of life, quality of life, global business and consumerism. The project is at a more critical and must not be approved by our Federal and BC governments.**

**Dozens of small and some major impacts to the estuary and the Fraser River were ignored by the Panel. For instance the salmon up-stream of the 2018 Big Bar slide will take many years to restore once the slide passage problem is resolved. As of 2020 the slide and proposed port fill site are a major threat to Fraser River Chinook salmon. As with most cumulative impacts, such ecosystem impacts were ignored by the Panel.**

**Alternatives do exist and it is strongly recommended that the taxpayer not support a project that in all probability will not be needed in the foreseeable future. This is indeed a project that is not based on a sound economic need, an evidence based scientific approach and a robust environmental review and should not be approved under any circumstance.**

## **2. Short-comings in the CEAA process:**

The entire review of this project, which began several years ago, was overly lengthy except for the short amount of time given to the public to review the many reports before hearings were called in the spring of 2019. The process has been so drawn out with its tedious requirements that



it is not surprising that the public reached near mental paralysis long before we reached the public hearings phase of May-June 2019 and the need to review this Panel Report.

The Port has spent millions of dollars to try and win public acceptance of this project by buying TV and media ads and hiring countless consultants, lawyers and political lobbyists. The playing field for those concerned about quality of life and our environment is totally tilted against the concerned citizen and our efforts to protect one of Canada's most sensitive and valuable habitats that supports the production of 30-40% of all of Canada's wild salmon.

The Review Panel Report does give a strong impression that the Panel did not understand that the proposed port expansion is located in the middle of a globally significant estuary that has been compromised by multiple significant adverse impacts from 150 years of past industrial developments. Its Recommendations indicate that there is no breaking point and the estuary and its life support structures can continue to be whittled away.

Considering the very significant irreversible impact on one of the most sensitive and valuable fisheries and fish habitats in Canada and that this estuary is both a critical stop-over for international migratory bird populations and Canada's largest overwintering habitat for aquatic birds, input from a very concerned public was rather limited. Also meaningful input from Federal and Provincial government agencies (i.e. BC Environment, DFO, ECCC, BCNRFDR, etc.) could have been more in-depth and open to public review.

The Panel hearing process was officious, extenuated and generally not structured to encourage full public input. not public friendly and it was not made clear whether or not the public had the right to cross examine the proponent or agency's presentations. At the hearing the public was given late notice that they could ask very limited questions as the process was hurried along after over 6 years of preparation by CEAA and many more years of preparation by the proponent – herein called the Port (Vancouver Fraser Port Authority).

It was most unfortunate that CEAA and our Federal government, despite many set-backs in environmental assessment and neutering of the Fisheries Act habitat protection section by the Harper Government, did not express this intent to update the CEAA review process for this highly adverse impact major project.

Why would the review of a giant impact on a key estuary delta be afforded the 'benefit' of a watered down eight year old environmental assessment process as passed by a previous government that was determined to handicap the environmental assessment process and protection of the environment?

**A flawed public process confused by long delays, confusing public consultations and a review split between the agendas of two very different governments (i.e. Harper vs. Trudeau) does not serve the public need for a present-day fair and just process especially**



since approval will result in a major irreversible impact to one of Canada's key estuarine habitats. Also the dual role of the Province versus that of the Federal government in this project review is again very confusing to the public.

### **3. Significant Adverse Social and Environmental Impacts:**

The Panel Report did an acceptable job of identifying social and environmental impacts to the local specific site but that was not the case for adjacent and more distant regions in this overall ecosystem area. The massive numbers of residual and cumulative impacts as identified by the Panel are summarized below. This is necessary in that the report is very confusing in that it does cover most certain and potential impacts but then it goes out of its way to assume that most of the impacts (many of which will be irreversible) can be mitigated (often without any scientific proof) to an insignificant adverse impact thereby resulting in a claim of totally diminished cumulative impacts and recommending approval of the project.

**Significant and residual adverse impacts as identified in the Review Panel's Report include:**

- 1. There will be spills and pollution in the shipping area.**
- 2. There is the potential of chronic oiling of wildlife in the shipping area.**
- 3. There will be increased greenhouse gas emissions in the shipping area.**
- 4. There will be exceedances of air emissions during construction.**
- 5. There will be degradation of the light environment – i.e. loss of darkness.**
- 6. The project will increase noise in the surrounding area.**
- 7. There will be increased sediment scour in the estuary habitat areas.**
- 8. Tugboat basin dredging will increase distribution of PCBs.**
- 9. The project will alter salinity variations in the estuary.**
- 10. Noisier underwater environment due to construction.**
- 11. Greater ship wakes affecting the area e.g. affecting recreation and small boats.**
- 12. Major loss of habitat without adequate compensation.**
- 13. Possible adverse effects on biofilm unique to Roberts Bank.**
- 14. Significant adverse impact on wetlands.**
- 15. Significant adverse cumulative effect on wetlands, wetland functions and red listed species.**





16. Significant adverse impacts on Dungeness crab populations.
17. Significant adverse impacts on the sea pen colony.
18. Residual adverse impacts on juvenile chum salmon.
19. Significant residual and cumulative impacts on juvenile Chinook salmon.
20. Significant adverse impact on surf smelt and sand lance populations.
21. Significant adverse impacts on flatfish.
22. Significant adverse impacts on endangered southern killer whale populations.
23. Significant cumulative adverse impacts on killer whales.
24. Excessive underwater noise from shipping.
25. Residual adverse impact on humpback whales.
26. Residual adverse and cumulative impact on Steller sea lions.
27. Residual adverse impacts on barn owls.
28. Residual adverse impacts on great blue heron and barn swallows.
29. Significant adverse residual impact on Tsawwassen First Nations land and resource uses.
30. Significant adverse residual impact on Musqueam First Nation land and resource uses.
31. Impact on the safety and practicality of continuation of the First Nations' crab fishery.
32. Residual adverse impact on land use and fishery of the Pacheedaht First Nation.
33. Residual adverse impact on land use and fishery of Ditidaht First Nation.
34. Residual adverse impact on land use and fishery of the Maa-nult First Nation.
35. Significant cumulative impacts on the Pacheedaht and Ditidaht First Nations.
36. Potential adverse impact on physical heritage sites.
37. Residual adverse impacts on First Nations cultural heritage values
38. Residual impact of shipping on cultural heritage values.
39. Increase in hazardous waste production.
40. Impact on the present port policing needs.
41. Residual impact of shipping on First Nations.



42. Significant adverse impact on agricultural land.
43. Significant adverse impact on visual resources.
44. Significant impact of NO<sub>2</sub> emissions on human health from construction.
45. Residual impact on human health from noise.
46. Residual adverse effect on food security for Indigenous groups.
47. Potential for land based accidents that can harm juvenile salmon and migratory birds.
48. A worst case oil spill would cause a significant residual impact for whales, birds, fisheries, cultural heritage and health to Indigenous groups.
49. Inadequate spill response times and cooperation and data sharing.
50. Inadequate ship source Oil Pollution Fund and facilities for justifiable costs and damages and response not presently covered.
51. Project will result in a residual adverse transboundary effect and adverse cumulative transboundary effect on USA Indigenous groups related to killer whales.
52. Inadequate intergovernmental management programs and baseline data collection for the Fraser River Estuary and Salish Sea.

Despite this very long list of significant adverse to less significant adverse impacts the Review Panel still recommended that *“The Panel is of the view that construction and operation of the proposed project do not pose major technical challenges.”* Therefore they appear to recommend that the Minister and Cabinet now approve the project. **This Review Panel’s conclusion is not based on the main pillar of environmental assessment and CEAA credibility i.e. evidence based scientific decision making.**

The Review Panel’s conclusion, which is not based on a continuity of sound science but countless assumptions and bits of wishful thinking ( i.e. all impacts including residual impacts can be mitigated in some manner – often what that mitigation has to be has not been presented) is not evidence based and is therefore not credible.

Instead the Panel put together over 600 pages of report that recommends more studies, constant reliance on First Nations, local governments, police, DFO, ECCC and the BC Government to make countless commitments in time, manpower and money to address the countless impacts of this project and pretend the project will have insignificant impacts. Herein lies one of the greatest weaknesses in the Review Panel’s report – it is full of assumptions as to the ease of re-creating destroyed habitat.



#### 4. The Review Panel Report – a report of omissions and contradictions:

The Review Panel Report is a dangerous document as Governments will rely on the Conclusions and Recommendations which do not properly incorporate the science that was provided to the Panel by outside, government and public scientists, naturalists and fishers. There is a constant theme of ignoring science from DFO and ECCC on the geomorphological effects from the Project which ECCC claims will alter the salinity, hence the biofilm, hence the sandpipers. The Report also refutes ECCC's claims of irreversible impacts to mudflats. Based on the views of the Review Panel one can be misled to wonder why there is a need for government scientists.

While the Panel reports some significant adverse environmental and cumulative effects on wetlands, they fail to include **residual adverse effects** even though they refer to that in their comments. This is important legally as residual means the effects cannot be effectively mitigated. Throughout the report, they fail to report adverse effects on the functional aspects of wetlands or many other habitat concerns.

The Report is full of contradictions. One important issue is that the Recommendations contravene CEAA 2012 as they propose unproven mitigation measures that are not technically or economically feasible. For some unknown reason the Panel seems to have put the responsibility and cost on federal and provincial agencies and First Nations to identify, plan and implement many future mitigation measures.

The Recommendations for future unproven mitigation measures also ignore the Precautionary Principle and the Mandate of the Review Panel which is to report on the environmental assessment, not suggest future plans, mitigation and remedies that were not identified and presented to the public during the environmental assessment process, as required by law.

(On page 40/627 the Review Panel outlines that:

*“While uncertainty is inherent in predicting the environmental effects in a complex ecosystem, future management plans were not considered as a substitute for providing technical and economical feasible mitigation measures nor was adaptive management appropriate as a response to uncertainty about the significance of environmental effects. Therefore, the Panel is also of the view that if there is uncertainty about whether the Project would be likely to cause a significant adverse environmental effect, a commitment to monitoring Project effects and to manage adaptively is not sufficient.”*

Then in the next paragraph, they contradict this approach:





*“Where there was a potential that the Project could result in significant adverse environmental effects, the Panel identified the likelihood and made recommendations to assist any subsequent regulatory review. In some cases, this included collecting additional information prior to regulatory approvals so monitoring and adaptive management during construction and operations could be more effective. If, taking into account the implementation of proposed mitigation measures, there remained uncertainty about whether the Project would be likely to cause a significant adverse environmental effect, the Panel proposed, when applicable, the requirement of additional measures or studies prior to the construction or operation of the Project.”*

This approach is beyond the Review Panel’s Mandate in the Terms of Reference and CEAA 2012 as they are supposed to report on the environmental assessment, NOT future planning:

CEAA 2012, Section 43.1 which states the Review Panel Report must:

*(d) Prepare a report with respect to the environmental assessment that sets out*

- § (i) the review panel’s rationale, conclusions and recommendations, including any mitigation measures and follow-up program, and*
- § (ii) A summary of any comments received from the public, including interested parties;*

The Review Panel Terms of Reference, Section 4.28, qualify that the recommendations include information received through the process which, if implemented, would avoid or mitigate the environmental effects of the Project.

*“The Report shall include:*

- 1. The rationale, conclusions and recommendations of the Review Panel **on the environmental assessment of the project** including any mitigation measures and follow up programs ...*
- 5. an identification of **recommended mitigation measures and follow up programs that relate to the environmental effects of the project defined in section 5 of CEAA 2012, including, as appropriate, any commitments identified by the proponent in the EIS or during the review panel process;**...*

These after-the-fact recommendations also contravene the Precautionary Principle in CEAA 2012. The intent of the precautionary principle is to avoid needing full scientific certainty before acting to stop a serious threat of irreversible damage:



Canadian Environmental Assessment Act, 2012 (CEAA 2012)

Purposes

*4 (1) The purposes of this Act are...*

*...(g) to ensure that projects, as defined in section 66, that are to be carried out on federal lands, or those that are outside Canada and that are to be carried out or financially supported by a federal authority, are considered in a careful and precautionary manner to avoid significant adverse environmental effects.....*

*(2) The Government of Canada, the Minister, the Agency, federal authorities and responsible authorities, in the administration of this Act, must exercise their powers in a manner that protects the environment and human health and applies the precautionary principle.”*

We fear that the Federal and BC Governments will be making a decision on the Project based on legally flawed Conclusions and Recommendations.

The provincial agency, B.C. Forests, Lands, and Natural Resources Operations and Rural Development (FLNRORD) made some excellent points during the environmental assessment. Provincially listed species are at risk and while the Panel Report acknowledges that, they do not effectively address the wetland functions which support these species.

*“FLNRORD mentioned that it anticipated effects of the Project on the Roberts Bank WMA, which may be inconsistent with its management objectives. The Panel recognizes that potential effects on wetlands could adversely affect the WMA. “(Review Panel Report Page 176/627)*

The Review Panel Report omits important information and consists of Conclusions and Recommendations that are not consistent with the Species at Risk Act, CEAA 2012, and the Review Panel Mandate and Terms of Reference. The Conclusions and Recommendation omit important information from scientific experts and the public and do not correlate with the Key Findings in the Report.

The Review Panel advises unproven mitigation measures that require future assessments and actions not made available to the public during the environmental assessment process. The subsequent measures transfer responsibility and implementation to government agencies i.e. taxpayers. We would also question the expertise of the Review Panel to make recommendations to assist or possibly direct the future work of the regulatory agencies. What regulatory or



enforcement experience and expertise did they have to venture into future regulatory and compliance needs?

## **5. The Review Panel Report – a report of wishful thinking and denial of impacts:**

As noted in the above section, the Review Panel Report was often not based on good science or a good continuity of logic. Part of this problem is due to the fact that many of the studies by the proponent and their consultants were not based on the best of science but slanted to what the Port Authority needed to get this project approved. This is again a great shortcoming in the Federal and Provincial government's environmental assessment processes in Canada. It results in a CEAA process that more relates and accepts the claims of the proponent and their consultants than of the many public experts and the Federal government's own scientists. The Report leads one to believe that what should be scientific fact is indeed something that is more vague and can be bent to satisfy different conclusions.

The proponent and their consultants were given every opportunity to fill in the gaps and address shortcomings as identified by the government agencies and public review in the long pre-hearing Review Panel or CEAA review process. The final proponent report (EA) and the Review Panel Report produced after the hearing is a thick report covered with band-aid solutions to cover the many adverse impacts to the estuary and shortcomings or errors in their rationale to determine insignificant adverse impacts.

Considering the importance and uniqueness of the habitat involved in the estuary a thorough and robust ecological or ecosystem review of the project impacts and mitigation measures was necessary to at least appear to reduce residual impacts to insignificant levels. Although that was NOT done, the Review Report seems to pretend that it was and now the project can jump through the low bar CEAA or other environmental assessment gauntlets (i.e. BC EAO) and obtain a less than legitimate project approval.

As an example of the above problem refer to P 461 of the Panel Report.

### ***“Environmental Component - Marine Invertebrates***

***Residual Effect (after mitigation) - Productivity loss for bivalve shellfish, Dungeness crab and orange sea pen during construction and operations.***



***Total Cumulative Effects Analysis Conclusion** - Residual (cumulative) effect of the Project in combination with the effects of other projects and activities that have been carried out was considered not significant. “ “(Underlining added).*

The above also applied to diving birds and changes in seafood harvesting. This conclusion is based on the fact that the original Roberts Bank Terminals have filled in some 200 hectares of prime estuary habitat. If approved this project will now add 183h for a total loss of about 400h of near shore ocean surface, marsh and exposed and submerged benthic mudflat habitats. That is about 975 acres of habitat loss i.e. 1.5 square miles of permanent habitat loss!

**RBT2 will double the RBT1 losses and the Review Panel saw that as insignificant. One is left to wonder what would be a significant adverse impact?** This is an overall 18 % loss of Roberts Bank mudflat face and about 12% of the entire Roberts Bank – Sturgeon Bank estuary complex. Considering RBT1 and T2 that is the loss of the bottom environment of about 400h and permanent loss of 20,000,000 cubic metres of water column living space for phyto and zooplankton production, macro invertebrates, fish and diving birds.

To call such a loss “insignificant” in any other business would simply be called a fraudulent claim. One can only speculate what the Review Panel was thinking when it ignored these major adverse impacts and did not see the need to specify at least an equal amount of replacement habitat of that type in that area – a general DFO requirement.

As part of a cumulative impact consideration the Tsawwassen Ferry Terminal has filled in at least another 20h of similar habitat. Crab and shrimp fishermen have lost most of their fishery on existing Roberts Bank by fill, causeways and closed fishery areas.

In this study the Review Panel places a great deal of faith in often unknown, non-existent, or unproven technology to reduce predicted impacts to an insignificant residual level. This is despite the fact that the study does properly identify about five dozen impacts to the environment and social structures and values.

Despite the fact that most impacts were found to be significant adverse impacts, the Panel seemed to believe that humans have the data and the technology to overcome almost any impact to the point where it is not an impact of any significance. This is simply wishful thinking and to some degree the Port Authority did lead the Panel to this conclusion on certain impacts. For instance they indicated that they had designed and built multiple marsh replacement projects and all of their projects were successes.

Most habitat compensation projects built in the Fraser Estuary were built before Vancouver Port had full jurisdiction over the estuary and most projects were designed by DFO in cooperation





with the North Fraser Harbour and Fraser River Harbour Commissions. Certain mitigation projects did indeed fail or were less than fully successful (e.g. Steveston Jetty marsh building project, Richmond Landfill marsh replacement project). Others with harbour approval were only partly successful (two North Arm compensation projects). It is misguided and smug science to believe that biologists and engineers can build anything natural processes can take natural river or estuary forces years, decades or centuries to create.

Further the Review Panel fell into the trap of believing that a compensation habitat can be built anywhere even though the impact of RBT2 is on Roberts Bank. This is a serious violation of any ecological understanding of ecosystem needs and functions and violates the 1980's Agreements that the NFHA and FRHC signed with DFO recognizing ecological reaches in the estuary for such habitat compensation purposes.

For instance the Port and the Panel apparently believe that one can destroy crab habitat on Roberts Bank and with ecological legitimacy replace it on Sturgeons Bank. To make matters worse, the Panel then feels the fishers that lose their fishing grounds on Roberts can then simply begin a new fishery on Sturgeons Bank

This faulty thinking is then exacerbated by the belief that animals like bivalves (clams) can simply avoid the giant fill area and take up residence elsewhere. Clams are relatively sessile and are not going to move to another habitat area. Sturgeon Bank is already utilized by hundreds of aquatic species and has its own marshes, mudflats etc. that serve the estuary in a more than acceptable manner.

Also, it is not reasonable to propose that marsh habitat replacement can compensate for the loss of mudflat or submerged mudflat habitat. All habitats are of value and there is no ecological logic that implies that one can keep trading off different types of habitat for marsh habitat. Part of what makes a healthy and resilient environment is most often its diversity of life and habitat types.

**The massive additional loss of demersal habitat (the water column's three dimensional living space) by RBT2 fill resulting in a loss of about another 12 million cubic meters of habitat for plankton, shrimp, fish and aquatic birds is largely ignored in the report.** This extremely significant loss of living space is not in any manner being replaced on Roberts Bank or elsewhere. The Port and the Review Panel have ignored the fact that all fish using the bank areas have to move out into the submerged mudflats for refugia and feeding when the tides are ebbing and their high tide mudflats and marsh feeding areas are drained (twice each day). It is this refugia habitat that will be destroyed in perpetuity by the giant RBT2 fill project and will not be compensated for in any manner. As noted earlier this amounts to about 18% of the bank's drop off habitat area.





Also the giant quantities of fill and new causeway connecting RBT1 to RBT2 will block all water flow and fish movement in the area. This blockage is again largely ignored by the Review Report.

When mitigation does not work – who will foot the bill years later? Who will do remedial works and where? Why has this project, if it is to have an insignificant impact not have allowed for removal of works after the port life of 75 years is over? Why externalize the cost of leaving this giant fill in the middle of the estuary to haunt future generations? The Panel has not addressed this issue.

The Review Panel seems to place much faith in hope and wishful thinking that negative events will not happen and that unproven works will work. This is exhibited by the constant use of such phrases as “it may,” “it is assumed.” To cover their assumptions or unknown impacts the Panel was careful to specify the need for constant monitoring of many aspects of the project to determine future impacts or discover non-identified impacts.

Many of these CEAA type reviews seems to believe that monitoring is a form of mitigation and such monitoring will help address risk. This is not true and it simply passes on the impacts of this project to future generations. The Review Report has to be a positive ‘pre-mortem’ report on such a habitat destructive project and not fall into the trap of adding on a post-mortem assessment and attempts at replacing lost habitat and life forms years after the fact.

As an example of this delayed mitigation action one can examine the above ground powerlines at the first Roberts Bank Port that killed birdlife for several decades and after much agency and public concern the problem was not addressed in any timely manner. The original port blocked water flows and fish migrations. Instead of addressing this problem the causeway was made wider. Over 50 years later the Port is just proposing to add to the problem.

Again the Panel makes no issue of the blockage of fish migration and flow passage through the Roberts Bank port and causeway areas. To some large degree they seem to have accepted this significant adverse impact and their recommendations will simply add to it.

In summary, the Review Panel did ignore good science and common sense including that of the Federal government’s own fisheries and wildlife scientists by recommending this project proceed for government approval. One can only believe that the known government agenda based on statements made by various MPs and cabinet ministers that the Fraser was to be the gateway to the Pacific Rim must have affected their thinking. The public would have expected greater due diligence in this matter.



## 6. Ecosystems and cumulative impacts:

**The Review Panel draws valid conclusion on many adverse impacts but does not then conclude that the cumulative effects assessment fails to meet CEAA 2012 requirements and fails to meet basic standards of cumulative effects assessment.**

Amazingly, the Review Panel does not make any conclusions despite pointing out failures in the cumulative effects assessment. Then the Review Panel makes 2 Recommendations for future actions:

***Recommendation 69.** The Panel recommends that the Cumulative Effects of Marine Shipping initiative of the Oceans Protection Plan be pursued with appropriate budgets.*

***Recommendation 70.** The Panel recommends the Government of Canada undertake two regional environmental assessments for the Fraser River estuary and the Salish Sea to establish an environmental baseline, identify environmental and cumulative effects of the areas, and mitigation and follow-up requirements. The regional assessment should be used to develop and implement Intergovernmental Management Programs of the Fraser River estuary and the Salish Sea*

The Panel recognizes that the Proponent conducted a type of cumulative effects assessment when a residual effect was predicted. However, in many cases the Proponent concluded the residual effect was negligible, not detectable, or so small as to not be measurable. In other instances, the Proponent stated that the mitigation measure would partially mitigate the effect and still concluded that there was no residual effect. In both instances the Proponent then improperly concluded that a cumulative effects assessment was not required.

This approach is neither conservative nor does assess the Project effects in a precautionary manner. For a residual effect to be reduced to zero, the mitigation measures would have to be fully effective so that no adverse effect remains.

The Panel did not appear to recognize that the Proponent used the terms “undetectable” and “unmeasurable” as synonymous terms that were used to describe residual effects that are of very low consequence - ones that the Proponent was unable to clearly characterize the magnitude, frequency, duration, and extent of the residual effect.

The EIS Guidelines required that residual effects, even if very small or insignificant, be described. This was particularly important in consideration of the cumulative effects assessment where small residual effects could combine with the effects of other projects and activities that have been or will be carried out.



When a project or adjacent projects cause multiple non-significant adverse residual impacts, when do they not add up to a significant adverse impact that has to be addressed?

## **7. Contradiction in Review Panel's intentions versus actions:**

Review of Page 40/627 shows the contradiction in what the Review Panel states they have done versus what they actually have done.

In the Report, the Review Panel states that monitoring, future management plans, and adaptive management were not sufficient mitigation measures for significant adverse effects. The Report states these initiatives did not substitute for technical and feasible measures:

*“While uncertainty is inherent in predicting the environmental effects in a complex ecosystem, future management plans were not considered as a substitute for providing technical and economical feasible mitigation measures nor was adaptive management appropriate as a response to uncertainty about the significance of environmental effects.*

*Therefore, the Panel is also of the view that if there is uncertainty about whether the Project would be likely to cause a significant adverse environmental effect, a commitment to monitoring Project effects and to manage adaptively is not sufficient. The Panel is also of the view that, if evidence from the follow-up programs indicates unforeseen adverse Project-related effects, offsetting those effects is not the appropriate first line of corrective action for the elimination, reduction or control of the adverse environmental effects of a designated project.” Page 40/627*

## **8. Recommendations made beyond Review Panel mandate:**

Contrary to the statement above, the Review Panel made recommendations for the same measures that they claimed were insufficient and could not substitute for technical and feasible measures. Many of their 71 recommendations include future mitigation of monitoring, additional information, management plans, future studies, adaptive management and offsetting.

The Review Panel explained their approach was to advise the government of significant adverse effects and make recommendations to assist any subsequent regulatory review, information, studies, and/or measures.



*“Where there was a potential that the Project could result in significant adverse environmental effects, the Panel identified the likelihood and made recommendations to assist any subsequent regulatory review. In some cases, this included collecting additional information prior to regulatory approvals so monitoring and adaptive management during construction and operations could be more effective. If, taking into account the implementation of proposed mitigation measures, there remained uncertainty about whether the Project would be likely to cause a significant adverse environmental effect, the Panel proposed, when applicable, the requirement of additional measures or studies prior to the construction or operation of the Project.”*

Although the *CEAA 2012, Section 43.(1)(d) (i)* states the duties of the Review Panel include recommending mitigation measures and follow-up program, they are with respect to the environmental assessment, not subsequent regulatory review and additional information that has not been included in the environmental assessment process with the opportunity for public input:

*(d) prepare a report with respect to the environmental assessment that sets out*

*(i) the review panel’s rationale, conclusions and recommendations, including any mitigation measures and follow-up program, and*

The Review Panel Terms of Reference, Section 4.28, qualify that the recommendations include information received through the process which, if implemented, would avoid or mitigate the environmental effects of the Project.

*“The Report shall include:*

- 1. the rationale, conclusions and recommendations of the Review Panel on the environmental assessment of the project including any mitigation measures and follow up programs; ...*
  
- 5. an identification of recommended mitigation measures and follow up programs that relate to the environmental effects of the project defined in section 5 of CEAA 2012, including, as appropriate, any commitments identified by the proponent in the EIS or during the review panel process;...*

**Therefore, recommending subsequent unproven mitigation measures, plans, and regulatory reviews that have not been included in the environmental assessment process, and have not been provided to the public for comment, are inappropriate and beyond the mandate of the Review Panel.**



Furthermore, the Review Panel’s Recommendations inappropriately infer Project approval as they suggest subsequent new measures to mitigate significant adverse environmental and cumulative effects. They are recommendations for moving forward in spite of the Key Findings of significant adverse environmental and cumulative effects for which the Panel found insufficient mitigation measures.

## **9. Mitigation measures must be technically and economically feasible**

CEAA 2012, Section 19 (1) (d) states the environmental assessment must take into account:

*“mitigation measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the designated project;”*

As quoted above, the Review Panel stated that subsequent initiatives did not substitute for technical and feasible measures:

*“While uncertainty is inherent in predicting the environmental effects in a complex ecosystem, future management plans were not considered as a substitute for providing technical and economical feasible mitigation measures”*

For a number of factors identified in the environmental assessment, the Review Panel reported in their Key Findings that there would be significant adverse environmental and cumulative effects even after mitigation measures. However, the Review Panel did not appropriately incorporate these Key Findings and insufficient mitigation measures into some of the Conclusions and Recommendations.

It is fair to conclude that the cumulative effects assessment fails to meet CEAA 2012 requirements and fails to meet basic standards of cumulative effects assessment.

## **10. Timing, project need and its economic rationale:**

Independent economic analyses should have been done before the Review Panel began or completed its hearings and report. Relying on proponent studies for such work is one of the greatest weaknesses in Canadian environmental impact studies. The proponent’s arguments of an economic need for the container terminal expansion is again likely biased in terms of building a greater port facility (empire) for an ever increasing economy.





This was a concern at the time of the hearings but now as international trade plummets, this is a greater concern than ever. One can conclude that the Port has determined that when the Fisheries Act and CEAA was neutered by the previous federal government now was the time to get approval for the building of a larger port empire. Regardless of its need and economics, it will be of some use in the foreseeable future and now is the time to push through any environmental assessments in that the bar is a very low point.

The Review Panel Report did next to nothing to examine the record of the Port's history in planning past expansions at Roberts Bank that were not needed. For instance refer to the report of 2004 (Hemmera Envirochem Inc. – History of Development at Roberts Bank – An Overview).

That study indicated that in 1977 the Port was planning for more filling in of Roberts Bank for more coal, grain, potash, sulphur and bulk liquids including a liquid tank farm and pipeline. The FEARO review was critical of the proposal and its environmental impacts and no bulk grain, potash, sulphur or liquids facilities have ever been built at Roberts Bank.

This type of speculation as to what the economy demands was obvious as far back as 1890 in the Fraser Estuary area as various port promoters planned for the filling in of False Creek, Spanish Banks sand flats, Sturgeons Bank and other areas for major port facilities (Historic Atlas of Vancouver and the Lower Fraser Valley by D. Hayes, Douglas and MacIntrye, 2007). Obviously the needs for those facilities were never really needed here. Is a new container port really needed on Roberts Bank?

The Port seemed to be correct in their timing i.e. to submit this proposal for review in that the present government determined there was no need for the Review Panel to conduct its review under CEAA and Fisheries Act law upgrades of 2019. It's more than ironic that this environmental legislation was neutered in the 2012 – 2019 interval and this project conveniently has its studies and EA and Panel Review in that 2012 to 2019 watered down regulatory gap. Many will question the government's morality of doing this considering their promise to restore/upgrade CEAA and the Fisheries Act for the new government's post Harper mandate.

It is illogical that we have competition for a federal container port expansion in Prince Rupert and at Roberts Bank and this Panel was not mandated to do a coastal review of West Coast port needs. It is ironic that a private company is in competition with the Port to build another contain port extension on Roberts Bank – probably with less environmental impact. It is odd that the Port has been opposed to that proposal. The Panel Report should have outlined the conflict of interest the Port is in as to private enterprise and the Port's role as a developer and environmental regulator.



It is odd that billions of dollars will be spent on this project when the nation is in massive debt and the life of the proposed port is slated to last only 75 years and cost of project remediation at that time (or at any time) has not been considered by the Review Panel. In 75 years the RBT2 life may be over but the taxpayer will still be paying for it as part of Canada's massive debt. If society cannot take that into account it is little wonder that we cannot take into account the true costs of future environmental degradation and global warming!

Many of the costs of mitigation, research, monitoring, collaboration, and intergovernmental cooperation to examine the projects impacts and monitor and remediate mitigation works have been externalized by the Review Panel. This is highly questionable that this puts a great cost of multi-millions of dollars onto DFO, ECCC, First Nations and the Province. The morality and ethics and legal appropriateness of doing this is wrong and should not be permitted by a responsible government.

Finally, as with many ecosystem impacts, the government agencies' and off-site economic cost related to this project seem to not be covered. How will the increased shipping, if it materializes, be transported through the canyons transportation corridors in BC as well as through the Rocky Mountains? Are these costs of railway and highway improvements to also be externalized to other agencies (i.e. the taxpayers) and companies?

## **11. Detailed Conclusions:**

The above brief indicates the numerous weaknesses in this proposal and its mediocre attempts at mitigation of major impacts in an extremely sensitive and productive estuary of global significance on the west coast of the Americas. In that the proposal and the Port Authority has downplayed its Canadian and international environmental stewardship responsibilities the projects many social and environmental adverse impacts can now be exacerbated by the Review Panel and its weak conclusions and recommendations in its Review Report.

**The Conclusions and Recommendations omit important scientific information and do not correlate with the Key Findings of significant adverse environmental and cumulative effects in the Fraser River Estuary which has international significance for salmon runs; migratory birds of the Pacific Flyway; and endangered Southern Resident Killer Whales.** This contravenes *CEAA 2012* and the *Species at Risk Act*. Uncertainties are not sufficiently incorporated as the Conclusions and Recommendations infer and assume a way of moving forward without credible scientific evidence and without substantiated mitigation measures.



**Government and independent scientists raised concerns that plans to dredge and fill the estuary to build the 183 hectare artificial island and expanded causeway for the new container terminal will irreparably alter the ecology of the Fraser River estuary. Dredging, filling, construction, shipping, and operation of the planned terminal will destroy habitat and alter geomorphological processes causing changes in water quality, salinity regimes, sedimentation, and biological processes leading to further habitat loss as well as habitat degradation and fragmentation. A chain of significant residual adverse environmental and cumulative effects triggered by the Project are not sufficiently incorporated into the Conclusions and Recommendations.**

The Fraser River Estuary Ecosystem, not just individual components, factors, and functions, will be impacted with significant residual adverse environmental and cumulative effects on globally significant species including bird and fish populations, marine mammals, and numerous organisms that support the unique estuarine processes that make this estuary one of the most productive areas on our planet.

**Summary of specific short-comings that clearly indicate that the Review Panel's Report cannot the foundation for any recommended approval of the Roberts Bank Terminal 2 Project includes:**

- 1. Serious omission of evidence that changes to the salinity regime that will negatively impact the entire ecosystem and the species it supports.**
- 2. Failure to recommend mitigation of the present causeway and any new addition to the complex i.e. causeway form RBT1 to RBT2.**
- 3. Failure to reasonably assess the domino effect and implications of geomorphological changes.**
- 4. Failure to meet legal requirements of assessment.**
- 5. Contradictions in the Review Panel approach as stated in the Report.**
- 6. Failure to ensure recommended mitigation measures are technically and economically feasible.**
- 7. Recommending unproven future mitigation measures beyond the Review Panel Mandate.**
- 8. Failure to incorporate the Precautionary Principle,**
- 9. Questionable modeling to assess components.**
- 10. Reading too much into modeling data and making unreasonable conclusions.**
- 11. Failure to incorporate documented uncertainty into Conclusions and Recommendations.**
- 12. Failure to incorporate information from government and independent scientist and the public.**



13. No assessment of cumulative effects on intertidal wetlands and the red-listed species in those areas.
14. Failure to sufficiently incorporate findings of significant residual adverse environmental and cumulative effects into Conclusions and Recommendations.
15. Failure to address watershed cumulative impacts such as impact on Upper Fraser Aboriginal Fishery and other obvious impacts on Chinook salmon such as migratory blockage at the Big Bar slide.
16. Failure to meet requirements of *Federal Policy on Wetland Conservation*.
17. Largely ignored the high level of submitted public concern.
18. Did not address warnings that offsetting measures for shallow subtidal sand flat habitat are not technically feasible.
19. Improper transference of responsibility and accountability for mitigation measures to government agencies at a cost to taxpayers.
20. Failure to specify long term monitoring to detect ecosystem change over the next few decades.
21. Failure to put the use of ecological function models and impacts into perspective in that the responsible government agencies were critical of the proponents use of a model that may have biased the Recommendations and Conclusions in the Review Report.

Overall this Review Report sets a standard for environmental impact assessment in Canada to a very low standard. It is rich in proponent studies, countless years of often less than productive consultations and has generated reams of paper that outlines countless adverse impacts (many of them significant) but dismisses most of them, as insignificant after questionable mitigation techniques are applied. When the residual impacts may carry on into the future the Panel and their Review Report simply passes the buck to the next generation and to the government agencies to further study the impacts and address additional mitigation measures.

This is another new low in Canada's attempt to provide a thorough scientific and objective robust environmental assessment and government review of the proposal. It is similar to the review conducted by the Port and the BC Environmental Assessment Office to import tankers of jet fuel into the Fraser River a few years ago. Despite a terrible environmental assessment and BC EAO and Port review, the project was approved and is now being built in the Fraser Estuary across from a large LNG project which was allowed to bypass an environmental review. Both of these projects are now under construction.

What is most frustrating is that another smaller port facility of this sort was recently reviewed by CEAA for the Petronas proposed LNG facility and port in the middle of the Skeena Estuary. The studies for that report demonstrated less than good science and the CEAA review report was as here, in denial of the adverse impacts and again the CEAA process recommended a political



approval of the project. There is great fear that this may well happen again for this similar but much larger project in the heart of the Fraser Estuary by the present government.

Despite the terrible CEAA Skeena Petronas LNG report, the various ministers including that of DFO and the Prime Minister were proud stand before the public and note how such thorough scientific and robust environmental reviews proves that you can grow the economy and protect the environment i.e. “we can have both” – quotation from PM Trudeau.

This is again less than wishful thinking and an abdication of environmental responsibility. An environmental assessment is not a permit to just get around all environmental impacts. Without the will to address real environmental protection needs, these statements are little more than a cruel hoax and again prove that unless the Trudeau and Horgan government takes a proper stand on such environmental matters, environmental assessments are little more than green washing.

The many calls in the 1970’s for a moratorium of significant projects in the heart of the Fraser Estuary (see Attachment) again seems to be lost in the political wilderness and the perceived need to grow the economy at any almost any cost. When will this change?

With all due respect, we request that the Minister of the Environment and Climate Change Canada and the BC Environment Minister assure us that this will not happen again.

Respectfully submitted by Fraser Voices Society,

<original signed by>

Otto E. Langer BSc (Zool) MSc - Fraser Voices Society - Chair

<original signed by>

Susan Jones BA - Fraser Voices Society - Director and Researcher

**Copies to:**

DFO Minister B. Jordan / MOT Minister M. Garneau

Lower Fraser MPs





Premier J. Horgan / Minister G. Heyman

Lower Fraser River MLAs,

Fraser Basin ENGOS / Media

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**3 ATTACHMENTS**



**Summary Letter to Environment and Climate Change Canada Minister Jon Wilkinson.**

Open Letter to: Hon. Jonathan Wilkinson  
Minister of Environment and Climate Change Canada  
House of Commons,  
Ottawa, Ontario

June 18, 2020

Dear Hon. Minister Wilkinson:

**Re: Fraser Voices Review of the CEAA Panel Review Report on the RBT2 Proposal.**

On April 11, 2020 Fraser Voices issued a Press Release based on our early review of the March 27, 2020 Federal Panel Review Report for the Roberts Bank Terminal 2 Project. A copy of our press release is attached for your information. In that we now have done a more complete review of this large report we take this opportunity to summarize our major concerns. More detailed comments are attached as an addendum.

- ✘ The Panel did succeed in identifying most of the possible significant adverse and deleterious impacts of the RBT2 project. These impacts pose a major threat to the life in the Fraser River ecosystem and the very survival of the Fraser Estuary.
- ✘ Despite the above, the Review Panel totally failed to understand how this development was related to ecosystem functioning and the well-being of this overly stressed estuary and associated ecosystem as caused by 150 years of past developments. The panel failed to relate this to the major new fill project and its operating impacts on this extremely critical and unique habitat area.
- ✘ Further the Panel did not attempt to conduct an assessment of the impacts of RBT2 as related to all cumulative impacts affecting the estuary and indeed the entire Fraser River ecosystem. The Review Panel's report ignored much scientific input and did not relate the welfare of the entire river and its life (e.g. salmon) from the Nechako and Stuart/Takla Rivers to the estuary. The Panel apparently saw the Roberts Bank area as an isolated ecosystem and made no attempt to address the fact that the salmon in the Upper Fraser and elsewhere depend upon the estuary for survival. The First Nations upstream of the estuary depend upon the fish that depend upon estuary habitats and their protection. This is a simple concept that most should appreciate.
- ✘ The Review Panel substituted wishful thinking for sound judgment based on the science and experience associated with the effectiveness of impact mitigation works. Despite correctly predicting significant impacts the Panel then assumed that hopeful and often unproven habitat, fishery, waterfowl, etc. mitigation measures could eliminate all impacts to acceptable insignificant impacts. This was truly non-scientific.



- ✘ The review Panel externalized many management functions, remedial measures, research and monitoring needs to other levels of government including DFO, ECCC, First Nations and the Province. This does not appear to be a valid way of having a proponent address project impacts. The ethics and legality of allowing this offloading to take place has to be questioned.

**Based on the comments of Fraser Voices, experts, federal and BC conservation agencies, First Nations and the concerns of local governments, the CEAA Review Panel Report does NOT serve as the scientific, economic, common sense and public values foundation for the approval of this project in any form as applied for by the Vancouver Fraser Port Authority.**

**In that recent global events (e.g. COVID 19) must serve as a turning point in much of our thinking related to enjoyment of life, quality of life, global business and consumerism, the project is now even at a more critical cross roads at this time and now lacks the logic to be approved by our federal and provincial governments.**

**Dozens of small and some major impacts to the estuary and the Fraser River were ignored by the Panel. For instance the salmon up-stream of the 2018 Big Bar slide will take many years to restore once the slide passage problem is resolved. As of 2020 the slide and proposed port fill site are a threat to Fraser River Chinook salmon. As with most cumulative impacts, such ecosystem impacts were ignored by the Panel.**

**Alternatives do exist and it is strongly recommended that the taxpayer not support a project that in all probability will not be needed in the foreseeable future. This is indeed a project that is not based on a sound economic need and an evidence based scientific approach and a robust environmental review and should not be approved under any circumstance.**

Sincerely yours  
<original signed by>

**Otto E. Langer Fisheries Biologist**

**Chair of Fraser Voices Society (on behalf of our Directors and Members)**

**Copies to:** Lower Fraser MPs / DFO Minister Jordan /MOT Minister Garneau

Lower Fraser River MLAs, Premier Horgan / Minister Heyman / Fraser Basin ENGOS / Media



**PRESS RELEASE**

**April 1, 2020**

**Fraser Voices Expresses Disappointment Over CEEA Review Panel's Recommendations for Roberts Bank T2 Project.**

Monday the Canadian Environmental Assessment Agency Review Panel made recommendations which, if accepted by the Federal Government, would permit the Vancouver Fraser Port Authority to fill in 177 additional hectares of highly productive mudflat and marshlands for another container port at Roberts Bank in the middle of the highly productive Fraser River Estuary.

Fraser Voices is disappointed by this Review Panel's recommendations which suggest all environmental damages can be mitigated, monitored or offset. Conducted under the outdated 2012 rules of the environmentally callous Harper government, this long, drawn out and bureaucratic assessment seemed designed to minimize concerns of local communities and agencies opposed to it.

The Environmental Assessment Panel begins its summary of recommendations (oddly appearing in Appendix H) by first extolling the economic and industrial benefits of the project before outlining numerous substantial negative environmental effects. Nonetheless, none of the environmental damage is considered sufficient to recommend denying the port's expansion. The damages are seen as technical challenges which can be overcome without proof this is actually feasible. Of interest is that as presenters we were not to comment on, nor ask about either the economic case for the expansion nor the rationale for its location on Roberts Bank.

Many recommendations determine that the loss of Roberts Bank habitats and its biota can be simply "offset" to other places in the estuary, primarily, Sturgeon Banks. This means obliterating long established, thriving marshes and mudflats at Sturgeon Banks and replacing them with some man-made versions of themselves. Somehow, the Review Panel imagines, Sturgeon Banks will magically host more crab so the displaced Roberts Bank fishery can simply move north.

Many of the recommendations are disjointed and minimize the damage, seemingly doubting the data and predictions of experts questioning the ports expansion. While the proponent will have to undertake some recommendations to monitor, correct or resolve some issues during and after construction, other governmental agencies are to be involved and will need to foot the bill from depleted reserves and diminished personnel.

The Fraser Estuary has lost over 80% of its wetlands and most of its scrublands since the advent of European settlers. During the past decade alone it has seen development pressure for a coal port, jet fuel terminal and storage facility, doubling of the Tilbury cement plant and the Fortis LNG facility on Tilbury Island, this RBT2 project, and YVR plans to build a fourth runway onto the marshes and mudflats of Sturgeon Banks. Some of these projects are underway now.



If the Liberal Cabinet accepts the RBT2 environmental assessment report and allows this expansion is there nothing it will reject? What shoreline or estuary from here to the open ocean will be safe from the unassailable “Gateway to the Pacific” project.

Optimistically we can hope the Federal Government will do the right thing and reject RBT2. It is based on shallow, weak economics and in this site will do irreparable damage to the flora, fauna and microorganisms who live there, and the salmon, sturgeon, orca and thousands of migratory shorebirds passing through the region. The mitigation measures recommended are high risk and many simply will not work.

The Fraser Estuary is struggling to survive as an ecosystem, as a place we all love and enjoy. We urge our Trudeau Government to relate to the many negative impacts to the environment as identified by the Panel and reject the proposal for Roberts Bank port expansion.

Respectfully

On behalf of Fraser Voices members

<original signed by>

Otto E. Langer Chair For further information please call <personal information removed>

*Fraser Voices is a Society dedicated to the protection and preservation of habitat, farmland, fish and wildlife, and our quality of life in and around the Fraser River and Estuary so as to assure a sustainable future.*

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VANCOUVER SUN - November 12, 1975

## Ban on major projects urged for lower Fraser by Harvey Oberfeld

An ecological sub-committee set up under the federal environment department has called for an immediate moratorium on all major development within the Fraser River estuary and delta area.

The committee, in a report released at a meeting of the Vancouver Regional District planning committee today, said that before any major development is permitted to take place a comprehensive policy should be prepared taking into account protection of the areas as an "ecological unit".

This study defined the estuary and delta area as lands between the North Arm of the Fraser River, Boundary Bay and westward from where the river divides at New Westminster.

It would indicate that Sturgeon and Roberts Banks as well as Vancouver international Airport on Sea Island.

The federal government has been considering for some time a major expansion of the airport, including construction of another runway.

"The duration and nature of the moratorium would be dependent upon such factors as the course of action followed and the degree of cooperation achieved in actual development of a policy." The report states.

It recommends a joint federal – provincial-municipal land management program to consider aspects of land use, its wildlife management, recreation and formulation of comprehensive plan for the Lower Mainland.

"The rapid rate of overall development makes such a plan imperative." The sub-committee says.

The report also says a plan should be drawn up outlining carefully any future dredging requirements for the Fraser River and studying the impact such activities would have.

It suggests the various governments look at the environmental capacity and suitability of other areas for possible developments.

A consultative process involving all levels of government and representatives of concerned citizens should be initiated as part of the preparation of policies, the report says.

"The process would aid in the formation within the context of a regional, rather than purely local, and therefore a more restrictive perspective." the report says.

The report states that there are approximately 9.9 millions fish taken from the Fraser River estuary area annually, with a commercial value of \$73 millions at 1973 prices and an annual recreation value of \$197 millions.

(O. Langer June 20, 2020 NOTE: After many estuary conflicts FREMP was eventually established in 1983 to address the above needs and recommendation. Despite its gains and shortcomings, in 2014 it was dissolved by Environment Canada under the then Harper Government. A new FREMP was promised but nothing has been developed to fulfill the needs addressed some 45 years ago. Instead, the FREMP coordinating function was turned over to the Port – probably the biggest developer in the estuary. Why estuary protection receives such ongoing setbacks can only be answered at the political level.)