

**Report of the Environmental Assessment Panel
Roberts Bank Expansion
March 1979**

The 1979 Federal Environment Assessment Panel Review for an application for an expanded coal port facility at Roberts Bank documented warnings of potential adverse environmental effects. In their Executive Summary, page 1, they stated:

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

Issues and Impacts of the 1979 Report:

Page 16: “The Fraser River estuary and associated transitional wetlands comprise one of the most dynamic and productive ecosystems in Canada. This ecosystem supports a large and diverse community of organisms. All links of the food chain are present from the simple life forms such as plankton, benthic invertebrates and estuarine vegetation, through to the more complex life forms such as fish, birds and mammals...”

Page 17: “There was considerable concern expressed that, while enough basic qualitative information is available to allow recognition of the overall importance of the Fraser River estuary ecosystem, there is not enough quantitative data to allow for a comprehensive assessment to be made of the impacts of specific development projects. The port expansion project is no exception, especially since the proponent gathered little new information during the course of its assessment.....

...It was also recommended to the Panel that the Roberts Bank project not be reviewed in isolation from other existing and proposed developments in the system and should be considered with these in an integrative, cumulative sense. The Panel is in agreement that careful study should be done on the system as a whole, but questions whether this kind of analysis should be the sole responsibility of a single development proponent. The Panel believes that such a study is more properly the responsibility of governments and is very concerned that such important work has not been completed.”

Page 18: “The proponent has suggested that the Roberts Bank intercauseway area is largely separate from the rest of the delta ecologically. In terms of features such as eelgrass habitat, herring spawning, salinity, water quality, wave climate and shelter value, it is evident that the intercauseway is different. This is largely due to physical barriers that have been created on

Roberts Bank by the two causeways. However, the Panel does not agree that the area is a separate entity in the broad ecological sense.”

“The Fraser River estuary is a vital ecological resource on the Pacific Coast of Canada, not only as a habitat for fish and other aquatic organisms but also for birds. The Fraser continues to be a major Pacific salmon river of great commercial and recreational value. The salmon of this river also support a native food fishery of considerable importance. The Panel recognizes that protection of the valuable Fraser River salmon fishery must be considered as the principal element in evaluating ecological impact of the proposed port expansion...

The Panel is dismayed that more quantitative ecological information was not available to evaluate the impacts of the proposed project. This is particularly disappointing when it is considered that the initial phase of the Roberts Bank port development was begun more than 10 years ago. The need to conduct environmental investigations on the developed port, in relation to potential future expansion, should have been obvious and of high priority.”

Page 22: “The benthos is composed of organisms dwelling on the sea bottom and in sediments. These organisms receive the greatest impact from disturbance of the bottom in any type of development.....

The Panel can only accept a reasonable assertion that the benthos are important as a food source for both fish and wildlife on the delta, and concludes that these species and their habitats should be protected.”

Pages 22 and 23 discuss the potential for the causeway to have significant interruptive effect on juvenile salmonids.

“The Panel suggests that this major interruptive configuration in an essentially uniform environment could be a salmon mortality factor, and this question warrants investigation by the Fisheries and Marine Service.”

Page 24: **“The Panel also concludes that certain mitigation, such as eelgrass transplants and provision of new habitat, have not been proven in practice on a large scale and, therefore, cannot be accepted as compensation for existing fisheries habitat.”**

The Panel states concern that the shipment of bulk liquids, the bunkering of ships, and the discharge of ballast water all represent unacceptable risks to the Roberts Bank ecosystem.

Mitigation

Page 38: **“A major deficiency in the project proposal is the absence of assurances that the recommended mitigation measures described in the EIS and at the hearings will be implemented by the proponent.**

Some of the Major Conclusions

Page 39: #4 – “ The Fraser River estuary, including Roberts Bank and the intercauseway area, is a vital ecological resource in terms of providing habitat for fish, other aquatic organisms and birds....

#5 – More quantitative ecological information should have been available to evaluate the impacts of the proposal. The need to conduct environmental investigations on the developed port, in relation to potential future expansion, should have been obvious and of high priority, particularly considering that the initial phase of the Roberts Bank port was begun more than 10 years ago...

#9 – The benthos on Roberts Bank are a food source for both fish and wildlife on the delta and as such should be protected...

#10 – The existing Roberts Bank Port and ferry terminal causeways could represent a significant interruptive effect on the orientation of juvenile salmonids in their utilization of Roberts Bank and the intercauseway area, and this questions warrants investigation...

#12 – Mitigation measures such as eelgrass transplants and provisions of new habitat have not been proven in practice on a large scale and, therefore, cannot be accepted as compensation for existing fisheries habitat...

#16 – Collisions with wires, and stanchions could result in some bird mortalities. This impact can be mitigated.

#18 – The shipment of bulk liquids from an expanded port facility, the bunkering of ships at Roberts Bank, and the discharge of dirty ballast water, all represent unacceptable risks to the Fraser River ecosystem...

#32 – Tangible costs of mitigation measures and special services occasioned by the project should be components of the cost-benefit analysis conducted for the overall project..”

The Panel concluded that significant environmental damage and risk would result from the proposal. The Panel recommended that the expansion as proposed not be permitted to proceed. However, the Panel noted that there was an area where reduced expansion could be tolerated with minimal environmental impact.

“OVERALL CONCLUSION

The Panel concludes that the expansion of Roberts Bank port, as proposed, should not be permitted to proceed.

The information presented to the Panel indicates that expansion as proposed would cause significant ecological disruption in an area that is part of one of the most important estuarine ecosystems in North America. In addition, the information on social impacts, while generally

inadequate and inconclusive, gives rise to concerns related to a number of potentially affected groups if the full expansion were to proceed.

The Panel recognizes that the area of the proposed expansion is not of uniform ecological value or sensitivity and that there is a portion of this area where ecological values are minimal where limited expansion could be tolerated. This is the area of the proposed Terminals 2 and 3.”

RECOMMENDATIONS

The Panel made 10 recommendations if the decision was to proceed with a reduced expansion. These included:

- that proposed expansion be tested on a hydraulic model – to avoid excessive erosion of eelgrass beds and other benthic habitat*
- tangible costs of mitigation measures and special services occasioned by the project be included in the project cost-benefit analysis*
- that the federal Department of Environment take the initiative to organize the monitoring of the implementation of the recommendations of this Panel*

The Panel recommended 9 measures whether or not any further development took place at the site. These included:

- prevent further shoreward erosion of the existing berthing channel*
- prohibit shipping of bulk liquids; disallow ship bunkering; prohibit discharge of ballast water*
- take measures to reduce the potential for bird mortality from overhead wires and stanchions*
- return Roberts Bank back-up lands that were being held to support future port development to a provincial agricultural authority*

“Appropriate government agencies undertake additional studies on the following:

- (a) Utilization by salmonids, herring and crabs of the intercauseway and other adjacent zones of Roberts Bank, including food chains and habitats on which these species depend..**
- (b) Possible interruptive effects of the existing Roberts Bank and ferry terminal causeways on the orientation of juvenile salmonids in their utilization of Roberts Bank and the intercauseway area.**
- (c) Migratory bird populations and habitat utilization by area, both between the causeways and on Roberts Bank in general.**