

Conservation Report Summer 2020

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Hard to write anything these days without involving the COVID-19 crisis. You may have read “Combating Climate Change Through Conservation” in the last issue. Now how about “COVID Combating Climate Change and Aiding Conservation”? The COVID-19 crisis underlines the principal tenet of ecology: everything is connected to everything else. While the coronavirus is giving our environment a break, this crisis is (hopefully) a short-term emergency. Do we return to business as usual or use the lessons of care, kindness, cooperation, and marshalling of resources to transform our society to address the long-term emergencies of climate, conservation, and extinctions? How we proceed is everyone’s responsibility. Shall we push for the Green New Deal? I don’t know about you, but the more I immerse myself in the natural world, and the more I look at our growing human population and its increasing impact, the more I feel compelled to act to save, protect, enhance it. I believe that my sense of wonder began at about age two, and it hasn’t abated. And as we anticipate our first grandchild, I expect that my sense of wonderment and motivation to act will grow once more. Time for more action, anyone? Please consider how you can communicate effectively to reach our conservation goals.

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It’s Your Turn to Write a Letter-Urge Government to Vote against the Proposed Expansion at Roberts Bank

Perspectives on the Federal Environmental Review Panel Report - Roger Emsley, with contributions from Bev Ramey, Harry Crosby, and Peter Ballin.

BC Nature has made submissions, which can be viewed at the website under “conservation” “letters sent and received”. Now we need you, our membership, to raise your voices in opposition to this project! Read on for information.

The Federally appointed Environmental Assessment Review Panel for the Vancouver Fraser Port Authority (VFPA) RBT2 project submitted its report to the Minister of Environment and Climate Change on March 27, 2020. It was made public on March 30. In that report the Panel made it very clear that they believe that the Project is likely to cause significant adverse environmental and cumulative effects on the ecosystem, even taking into account the implementation of the suggested mitigation measures. In making its recommendations the Panel suggests further study, research, monitoring, and follow-up. It does not recommend in favour of or against the project. Because the Panel considered it beyond its mandate, it did not consider other locations for container terminal expansion where there is already sufficient capacity and expansion potential to satisfy Canada’s future trading needs.

The Minister of Environment and Climate Change and the federal cabinet will make the decision about whether to proceed with the project upon their consideration of the Environmental Assessment Review Panel's findings. The Panel reviewed many submissions, and these are among their conclusions:

- The Fraser River estuary is being increasingly threatened and the cumulative effects of successive actions need to be addressed. A proper cumulative effects assessment for the Project is crucial given the series of developments in the area that have occurred over the past decades. There needs to be a determination as to what degree these cumulative effects exceed a defined threshold moving the Fraser River toward the tipping point of degradation.
- Following the review of the financial structures proposed by the Proponent, the Panel favours an alternative structure that poses less risk and requires minimal investment by the Proponent if the Project proceeds. Does this mean that the cost of the project is out of proportion to its usefulness?

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

- wetlands and wetland functions in the lower Fraser River estuary, including negative effects from causeway expansion, and a significant adverse effect on provincially red-listed marsh communities
- infaunal and epifaunal invertebrates, including Dungeness Crab
- juvenile Chinook Salmon transitioning from the Fraser River to the ocean
- the endangered Southern Resident Killer Whales – based on the effects due to the Project and associated marine shipping on underwater noise, Chinook Salmon prey availability, and potential ship strikes.
- 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 suffice to compensate for the reduction in productivity associated with the loss of 177 hectares of habitat on Roberts Bank.

The biofilm issue remains contentious. This fatty acid-rich mud-top scum of microbes is essential to migrating shorebirds and the productivity of this ecosystem. The report states that RBT2 would have no adverse effect on the biofilm and its diatom composition but reports no certainty about effects on its polyunsaturated fatty acid production. Therefore, due to recent and still-emerging scientific understanding of biofilm, the Panel was unable to conclude with reasonable confidence that RBT2 would have a residual adverse effect on the Western Sandpiper, which depend upon those fatty acids to fuel their migration. However, Environment Canada scientists have repeatedly predicted a negative and immediate effect on the biofilm that will be continuous and cannot be mitigated. Additionally, experts in wetlands habitat (Baird 2019, and Beninger 2019) supported the Environment Canada position in presentations to the public hearings. A recent scientific paper (Schnurr *et al* 2020) “The peak abundance of fatty acids from intertidal biofilm in relation to the breeding migration of shorebirds” reinforces this point of view. Biofilm and its peak in

richness would seem to suffer from RBT2 and place Western Sandpipers and millions of shorebirds at risk. The Panel agreed with Environment Canada that there is no known way to mitigate for biofilm loss. Your letters should express concern!

The Panel makes several questionable recommendations regarding the biofilm:

- 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.
- 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 three years of operations
 - (ii) review of biofilm sampling and statistical methodology

If construction begins, it will be too late for the fulfilment of these recommendations to avoid irreparable damage.

In addition, the Panel identified many other areas of concern, including negative effects on human health, recreation, First Nations traditional land use, the crab fishery, and greenhouse gas emissions.

Nevertheless, none of the Panel's recommendations suggest that the RBT2 project should be rejected. All of their recommendations focus upon:

- 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 River estuary and Salish Sea

We know from experience that many of these do not work. "Soft" money for the future often dries up. Habitat compensation for other port projects has failed. BC Nature wrote a letter recently in opposition to inserting a marsh on a mudflat as a mitigating measure. Environment Canada is on record since 2005: further port development at Roberts Bank could break the chain of the Pacific Flyway. If there is a tipping point, no amount of long-term environmental management programming will be of any use.

The Panel's report forecasts sufficient significant adverse environmental impacts to scuttle the future of the project. In the Panel's words: "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 indicate 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.” All of this tells us that the government must follow the precautionary principle.

Harry Crosby has noted that failure of the panel to explore alternative means (other locations) means that the report does not meet the legal standards required by s19(1)(g) of the Canadian Environmental Assessment Act. The report must be upgraded before the Governor in Council (GiC - Cabinet) reviews the report and makes any decisions based on the report.

BC Nature has written to Minister of Environment and Climate Change John Wilkinson to express our opposition to the RBT2 project in light of the Review Panel Report.

Reference:

<https://bit.ly/2LiJsP> gets you to the Panel’s report. Check out the three-page summary and Appendix H, with 71 annotated recommendations. Or, if you like, you can read well over 600 pages!

Submit your comments. Addresses for our local MPs can be found at: <https://bit.ly/2SGUTa9>

Send your comments by email or hardcopy letter, postage-free to your MP.

Aerial Glyphosate Spraying

BC Nature received a careful, detailed response to our follow-up letter on this subject (on the BC Nature website) from Shane Berg, BC’s Deputy Chief Forester. He makes us aware of how government policy empowers local jurisdictions to determine appropriate forest practices within the broader provincial mandate. It seems that local input affects spraying decisions and different logging companies abide by different policies. That’s likely why the spraying doesn’t happen in the south of our province, where there would be more pressure not to spray. Most of the current spraying occurs in the NE part of BC. Companies doing the spraying must prepare pest management plans in accordance with the provisions and based on specific silvicultural objectives, tailored to specific areas and vegetative conditions, so a variety of treatments will most likely result. Natural Resource District Managers approve the reforestation stocking standards, including the appropriate mix and amount of trees for their area; that would include deciduous vegetation and aspen, vegetative types that glyphosates target and are of concern to BC Nature for their habitat and forage values. On a broader level, policies and regulations set objectives for diversity and ecosystem resilience at the landscape level, including seral stages (succession). These regulations help to determine the amount set aside for retention, including Old Growth Management Areas, Wildlife Habitat Areas, and Wildlife Tree Patches.

BC Nature expressed concern for the level of enforcement of the approved landscape-level objectives. The reply listed a range of monitoring activities, from planning exercises to Compliance and Enforcement monitoring for the non-legal values such as wildlife tree patches, forestry practices through a number of programs such as Stewardship, Compliance & Enforcement, and the Forest Range and Evaluation Program, and the Forest Practices Board. The Compliance Team

with the Ministry of Environment and Climate Change Strategy also reviews pesticide management plans and verifies compliance through sector audits and inspections prioritized on potential risks and complaints. A full annual report of compliance inspections and actions undertaken can be found at <https://bit.ly/2L3OFNo> management/publications-guides.

BC Nature raised concern that aspen and birch might not be significantly reduced at the landscape level of many thousands of hectares but would be at the scale of a thousand hectares or less and thus affect local biodiversity. The response indicated difficulty managing for biodiversity at the stand level because of varying environmental attributes but maintaining some level of biodiversity with the establishment of retained wildlife tree patches and otherwise protecting the habitat heterogeneity within the landscape. Silviculture survey data collected during the establishment phase enables tracking of the levels of deciduous species in the managed forest. These analyses show that young forests continue to support a component of deciduous trees even after herbicide treatment, although we don't know how significant these deciduous populations would be compared to a stand without herbicides. Importantly, treatment records indicate that in over two-thirds of all blocks treated with herbicide, not all of the block is sprayed, thus promoting further diversity at the stand level. We don't know what "not all of" means, however.

BC Nature inquired about reductions in aerial spraying. The response: with an average harvest rate of approximately 200,000 hectares per year, the total herbicide treatment area amounts to less than 6 percent of the areas being reforested. Across the province, herbicide application in Crown land forestry has fallen from an average of around 25,000 hectares per year in the 1980-90's to between 11,000 and 15,000 hectares per year in the current decade.

BC Nature expressed concern about critical habitats and species at risk and were told that these would be protected under the system of Old Growth Management Areas, Wildlife Habitat Areas, and Government Action Regulation Orders.

Might the timing of application be important for life cycles and populations of some of the organisms such as birds, insects, and small mammals? "As part of their 2017 decision reconfirming the registration of glyphosate, the Pest Management Regulatory Agency assessed the potential environmental risk to non-target organisms and stated that products containing glyphosate do not present risks of concern to human health or the environment when used according to the revised label directions". The timing of application means it is used when it will be most effective against the target vegetation, so we don't really have an answer. The World Health Organization (WHO) has stated that glyphosate is a probable carcinogen. They were no doubt referring to human health, but we as humans share many physiological features with mammals, what applies to us may also be reasonably expected to apply to other mammalian species. Is the Pest Management Regulatory Agency prepared to contradict the WHO? Lots of debate about the health and environmental risks.

Mr. Berg noted that new information is constantly being collected and published regarding non-target effects on non-competitive species and aquatic organisms and studies disagree with one another. Some indicate likely significant effects on berry and other plants, reptiles, amphibians, insects, songbirds, and other organisms such as microorganisms; others don't. Berg writes that there is no unequivocal substantiated risk that would mandate amendments to the existing

regulation, stating that field studies demonstrate that the effects of glyphosate and its metabolites on the environment are minimal when the herbicide is applied according to the label, and that measured community components remain intact, with only transient changes to them. If this subject interests you further, read the letters on our website, and write us your questions and concerns.

Environmental Regulatory Compliance in BC During COVID-19

While our federal government has committed to “enforcement discretion” in light of uncertainties in industrial operations during our disease crisis, the BC government’s Ministry of Environment and Climate Change Strategy has maintained enforcement of rules under the Environmental Management Act and the Integrated Pest Management Act. If an operator cannot comply due to government edicts, they are required to submit a notice of non-compliance accompanied by a rationale that includes information on mitigative measures taken. A myriad of regulations and agencies appear to be taking care that best environmental practices are maintained. If you enjoy all the legal stuff, go to <https://bit.ly/2WuYrxd>

The Important Bird and Biodiversity Areas Annual Report

Compiled by Krista Kaptein; available on the BC Nature website. In the report you will find a compendium of project descriptions, updates, and photos. Read 41 place names that celebrate the diversity that is British Columbia and learn about the conservation efforts in many of them.

Caribou Recovery Program Update

Joan Snyder reports that the provincial caribou recovery group has cancelled all field work this spring and the caribou budget will not be available until next fall. The Central Selkirk herd contained 24 members last fall and the survey in February and March revealed that the herd now has 26 members or an additional two caribou, so the herd is holding on at present. Part of this may be due to the 500m distance requirement that was established between snowmobiles and caribou last fall. This winter the biologists increased the distance requirement between caribou and snow mobiles to two kilometres, which may have provided some extra protection for the caribou. However, even though 85% of the Central Selkirk core habitat is protected, government ministers appear to be supporting logging full force in caribou habitat areas. This may well lead to serious caribou losses this spring and summer. Data indicated that caribou population numbers in general are still declining in most herds. The Site C dam flooding has not yet been dealt with even though caribou might be negatively affected.

The Director of the BC Caribou Recovery Program, Darcy Peel, reported on predator management this winter and the data listed for the province was a total of 498 wolves destroyed with 474 wolves killed from the air and 24 from the ground; in addition, 13 cougars were destroyed on the ground. He points out that wolf losses will be continued for the long term if we are to support the recovery of the caribou herds. As an example, one of the larger herds of about 600 animals has been reduced to approximately 300 animals at this time.

Land use designation for Skagit-Manning “Donut Hole”

BC Nature wrote to Doug Donaldson, Minister of Forests, Lands, Natural Resource Operations and Rural Development and George Heyman, Minister of Environment and Climate Change to follow-up on our previous correspondence thanking them for halting logging. This letter

encourages them to establish a land-use designation on those lands that will clearly end any future consideration of logging and that will bring us one step closer to park designation, awaiting only resolution of the mineral claim, thus bringing together the whole and intact Manning and Skagit Provincial Parks. With our growing population, the park location close to the Lower Mainland and adjacent to the wilderness lands of our American neighbours becomes ever more valuable.