



Watching out for BC's Wild Salmon

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May 27, 2015

Sheri Young, Secretary of the Board
National Energy Board
517 Tenth Avenue SW
Calgary, AB T2R 0A8

Dear Secretary Young:

**Hearing Order OH-001-2014
Trans Mountain Pipeline ULC (Trans Mountain)
Application for the Trans Mountain Expansion Project
Written Evidence for Watershed Watch Salmon Society**

Watershed Watch Salmon Society is a BC-based charity that was founded in 1998 and focuses on the conservation of wild Pacific salmon and their habitats. Given that a majority of people in this province consider wild salmon to be as culturally important to their fellow British Columbians as French is to Quebecers¹, we consider our mandate to be one of strong, broad public interest.

Watershed Watch is categorically opposed to the approval of the Trans Mountain Expansion Project as proposed by the proponent, Kinder Morgan. Moreover, we have no confidence in the fairness, objectivity, and appropriateness of the NEB's review process for this project, and therefore we have decided to not participate as intervenors beyond submitting this brief letter.

Reasons for opposing the project

In seeking to triple the throughput of oil from Alberta to the Burnaby terminal and add approximately 400 tankers per year transiting the southern Salish Sea into Burrard Inlet, the project poses unacceptable direct and indirect risks to wild salmon and their habitats in the Fraser watershed, along the marine transportation route, and in all adjacent areas that could be polluted in the event of a major spill. Several other expert intervenors have enumerated and substantiated in their submissions the various aspects of ecological, cultural, and socioeconomic risk posed by the project, and these risks are only summarized here in the most general terms and through the lens of conserving wild salmon.

The Fraser River supports annual returns of millions of salmon, and despite severe conservation concerns for several of its salmon populations, it still boasts more genetically distinct populations of sockeye salmon than any other river on Earth. The abundant and diverse

¹ In a survey conducted on April 19 and 20, 2011 by Angus Reid Public Opinion for Watershed Watch Salmon Society and SkeenaWild Conservation Trust, 70% of respondents said that they either "moderately agree" or "strongly agree" with the statement: "Wild salmon are as culturally important to the people of British Columbia as the French language is to the people of Quebec." The margin of error is +/- 3.5%. Full survey results and methodology can be accessed at: <http://www.watershed-watch.org/resources/wild-salmon-poll-results/>

salmon are integral to the globally significant Fraser estuary and Salish Sea ecosystem, as well as to the hundreds of lakes, rivers, and streams where they return to spawn throughout the massive watershed that drains a quarter of our province. They drive the food webs in these places; from microbes and plants, to grizzly bears and killer whales. In addition to forming a cultural touchstone and an ecological lynchpin, the annual salmon runs of the Fraser River and the other tributaries of the Georgia Basin generate tremendous well-documented social and economic benefits through tourism and aboriginal, commercial, and recreational fisheries. This is what is at risk with respect to salmon, to say nothing of the many other social and economic benefits the Fraser River and Salish Sea provide for us.

Considerable uncertainty exists about the likely dispersal behaviour of diluted bitumen (a.k.a. "dilbit") in water of varying salinity, turbidity, temperature, and disturbance from wind, waves, and currents. However, multiple lines of evidence indicate that when spilled into freshwater, or into the brackish waters along the marine tanker route, the diluted bitumen that would be conveyed by the project would begin sinking within hours, further compounding ecological impacts and the already extreme difficulty of cleanup.

According to evidence already submitted to the NEB, even a moderate pipeline rupture or a marine spill would result in severe contamination of shorelines, surfaces, and benthos of the receiving waterways, with severe, cascading ecological impacts that would be long-lasting or even permanent. The physical characteristics of the local waters, the high tidal range, the local weather, the highly complex habitat structures in the estuarine mud flats and tidal marshes, and the complexity of riverine floodplain ecosystems along the pipeline route, all lend themselves to efficient dispersal, submersion, and/or shoreline stranding of spilled dilbit.

Spilled dilbit could impact salmon in many ways along the pipeline and tanker routes. For example, submerged dilbit in rivers and streams could smother spawning gravels, and acutely poison salmon eggs and alevins developing within. Juvenile salmon are highly vulnerable during the first phase of their life in the marine and estuarine environments at the mouth of the Fraser and further along the oil tanker route, even in the absence of environmental degradation. In both the freshwater and marine environments, highly toxic components of the dilbit, including polycyclic aromatic hydrocarbons, could have both lethal and sublethal effects on juvenile salmon, both directly, and indirectly through multiple food web pathways.

Despite assurances from government and industry that spill response capabilities here are first-rate, experience suggests otherwise. The most recent example was the botched response to a relatively minor spill of bunker fuel in Burrard Inlet. But even with the best spill response, most oil from a major marine spill, or from a major pipeline spill into freshwater, would be unrecoverable, and would linger for decades following the initial catastrophe.

Reasons for not participating further in the NEB process

The NEB review process for the Trans Mountain Expansion Project has been described by other disillusioned intervenors as a sham. We agree. Our organization is staffed with professional scientists, and we have participated in numerous environmental reviews of energy, aquaculture, and mining projects at both the provincial and federal levels. While Environmental Assessment is severely flawed at both levels of government, this current NEB process is much worse. As a small charity with limited resources that must address an array of challenges to wild salmon, it would be irresponsible to squander our time here.

As with the social and ecological risks of the project, the glaring problems with the review process have been well documented in numerous submissions by other intervenors,

prospective intervenors who were unfairly denied standing, and most notably by two distinguished former intervenors (Marc Eliesen and Robyn Allan) upon their withdrawal from the process.

Based on what we have observed for ourselves and heard from other intervenors, we believe that the review process is biased, lacking in rigour, and unfair. Here are some of the main examples:

- The removal of oral cross-examination, an essential facet of previous reviews for similar projects, severely impedes the accountability of the proponent.
- The Board has failed, in the absence of cross-examination, to ensure that important questions from intervenors are fully addressed by the proponent, and in a great many cases, even addressed at all.
- The Board has demonstrated a strong tendency to favour the proponent over other participants in process-related decision-making.
- The Board allowed a substandard submission by the proponent. The submission has been criticized for not meeting minimum professional standards and for failing to incorporate essential factors in the Ecological Risk Assessment. Some of the more egregious exclusions include the possibility for oil spills to occur at multiple points along the tanker route and the possibility for organisms to be exposed to submerged oil. But there are many others.
- The Board is not considering cumulative risk of the entire project by excluding such things as the existing 60-year old Trans Mountain Pipeline, terminal, and associated Emergency Management Plans from its risk assessment.
- The Board is not considering the true capacity of the pipeline. Once the project is approved, the process would allow for the expansion of the new pipeline's capacity from 540,000 barrels per day, up to its maximum of 780,000 barrels per day--an increase of nearly 50 percent--without going through a full review.
- The Board is not considering several other key environmental risk factors, including climate change implications. Climate change is a major threat to BC's wild salmon.

Despite our total lack of confidence in the review process, we support the many other dedicated public interest groups, First Nations, local governments and citizens that have invested substantial resources in the hearing and are planning to see it through. We are confident that the many major concerns with the project and the review process are being addressed by the remaining intervenors. It is most unfortunate that their efforts are not being respected through due process.

Sincerely,

Aaron Hill, M.Sc.
Executive Director

cc. Other intervenors
The public
Kinder Morgan