

Beverly A. Bacon

#296, 108 – 800 Kelly Road

Victoria, B.C., V9B 6J9

Phone: 250 474-7202

November 10, 2018

Ms. Sheri Young

Secretary of the Board

National Energy Board

Suite 210, 517 Tenth Avenue SW

Calgary, Alberta T2R 0A8

Dear Ms. Young,

Re: Hearing Order MH-052-2018, File OF- Fac-Oil-T260-2013-03 59

My submission for the NEB Reconsideration will focus on the impact of project-related marine traffic on the endangered Southern Resident Killer Whales. I have become informed on this topic through extensive reading and by attending lectures by marine biologists who are presently doing research in this field. I am passionate about trying to save the SRKW from extinction.

At the outset I submit that the scope of the NEB review is too narrow. There is likely to be public dissatisfaction and more legal wrangling due to the board's decisions to:

- a) limit discussion of marine environmental impacts to within 12 nautical miles from the terminal,
- b) exclude upstream and downstream effects of extracting and shipping bitumen,
- c) omit consideration of related climate change,
- d) not call for updated economic projections that would affect the viability of the project,
- e) not factor in the disturbance and cost of reclamation of the terminal site if the project fails.
- f) not acknowledge the threat to the two high-traffic bridges should they get bumped

I draw to your attention that the projected "7-fold increase in tanker traffic" is incorrect. My information from the local newspaper Burnaby Now is that **the baseline in 2015 and 2016 was 15 or 16 tankers per year**. I would like the NEB to ask for and report the correct numbers. It makes a difference.

These are the current facts, as I know them, about Southern Resident Killer Whales:

- a) The population has been declining for 20 years, with several deaths recently.
- b) There are few breeding females left and they are nutritionally challenged.
- c) Calves are not surviving.
- d) Experts agree that extinction of the SRKW is a very real possibility.

The three main stressors for SRKW are: lack of prey (salmon), noise and disturbance from marine traffic, and pollutants.

I refer you to an article by Robert C. Lacy et al, published in Scientific Reports, October 2017, "Evaluating anthropogenic threats to endangered killer whales to inform effective recovery plans.". The authors conclude by statistical analysis that in order to get 2.3% growth in the SRKW population, acoustic disturbance would need to decrease by 50% and Chinook salmon would have to increase by 15%. Their model shows that increasing food alone will not turn around the decline of the whales.

<https://www.nature.com/articles/s41598-017-14471-0.pdf>

The whales can't take any more noise. **A deaf whale is a dead whale.** The construction of the terminal involves blasting, dredging, pole drilling and pole driving, all of which can cause damage to the marine mammals. Trans Mountain proposes that they would watch for whales and stop work when whales are spotted. They go on to say they might be able to use a bubble curtain. This seems like weak and unreliable remediation to me.

Trans Mountain agrees to all kinds of ideas for dampening the noise of ships. I bring to your attention: **Trans Mountain doesn't own ships.** Their responsibility ends once the product is loaded. The tankers that would frequent Westridge Terminal are international. We don't have the ability to regulate and inspect the ships for noise factors such as type of propellers, style of hull, maintenance, and on-board equipment. As for speed of vessels, compliance is unlikely without enforcement. Cutting speed increases time and time costs money.

Trans Mountain submits that the project-related tankers would represent only a small fraction of large commercial vessel traffic in the Salish Sea. It is correct that the whales are already stressed. That is not an argument for adding more stressors.

Marine traffic kills whales in many ways: threat of oil spill, collisions, crowding, and noise pollution.

The threat of oil spills has received lots of attention and time and money has been put into trying to mitigate this threat. How good is it to be "ready to respond" compared with prevention? In Canada we don't approve drugs and new products until the research is definitive. Bitumen in the marine environment is a new product for spill response teams to deal with. I urge you to stop everything until real, peer-reviewed science gives the green light. That means testing in a controlled setting with an approximation of the salinity, waves, wind, current, and coastal features that we have on the west coast of Canada.

Oil tankers don't belong in crowded narrow waterways. Escorted by tugs, as proposed, they are less likely to run aground (as a ferry recently did) but present a ridiculous length of moving object for whales to figure out how to get around. Add to that the deafening noise made by the boats that prevents the whales from using their sonar. Whales can't function when acoustically impaired. Trans Mountain suggests having a whale specialist on board each tanker watching for whales. That's not going to happen.

We can't relocate our Southern Resident Killer Whales to a whale sanctuary as has been done with some elephants to save the species. They don't take suggestions from us, we can't herd or corral them. The Salish Sea is their traditional territory. They were here first. They will continue to die here, one by one, sadly, painfully in public, to the shame of our government.

This is what we know about how the noise of marine traffic affects Southern Resident Killer Whales:

1. They rely on finding food by echolocation. They starve in a noisy environment.
2. They travel together as a pod using vocalization to keep contact. They get separated in a noisy environment.
3. Babies need to nurse from their mothers for two years. Remember it's dark down under the water. The only way mothers and babies stay together is by their vocalizations. Babies get lost in a noisy environment and are found washed up on shore, dead by starvation.
4. They find a prospective mate by vocalization. They don't date and mate in a noisy environment.

All the vessels in the Salish Sea need to slow down, have the quietest equipment possible, and be able to alter course. The Afframax tankers are not going to be able to comply. If monster ships are permitted to go anywhere at all, they should be in a less fragile area that doesn't already have an overcrowding problem.

The Killer Whales are showy and good looking when healthy. They tolerate humans wanting to get a look at them without posing a threat to anyone. They are fascinating to study because of their intelligent behaviour, social interactions, and communication. They attract millions of dollars to British Columbia's economy. Most of all, they are easy to love, and they open hearts to empathy.

China ought not to destroy the Panda.

Australia ought not to destroy the Koala or the Kangaroo.

Whales are emblematic of British Columbia's west coast. Are you going to allow their destruction?

I believe Trans Mountain expansion is a losing proposition. It will fail for economic reasons. There is no proof of an Asian market anxious to buy dilbit. The shippers who initially signed on for this pipeline can choose to opt out based on market conditions. The biggest tankers that can squeeze in and out of this port can't compete with the even bigger tankers that can ship a better product from elsewhere.

Please tell your Prime Minister that Canadian oil should be refined in Canada and used for Canadian consumption for the time it takes us to transition out of oil all together. Thank you.

Sincerely,



Bev Bacon