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FULL TEXT for ORAL STATEMENT BY WAYNE McCrORY TO JOINT REVIEW PANEL ON ENBRIDGE, KELOWNA, BC. JANUARY 28, 2012.

[N.B. Due to time constraints, some of my written material was excised from my written presentation when I gave the oral and will not appear in the Panel testimony documents]

Good afternoon.

My name is Wayne McCrory. I am a registered professional wildlife biologist in BC with 45 years of experience. I have produced over 80 reports and publications, some peer-reviewed. I also served on province's Grizzly Bear Scientific Advisory Committee.

I have extensive experience in environmental impact assessments, including one of the first environmental studies in 1973 on the Alberta tar sands, Syncrude Lease # 17. I also worked on environmental studies of the proposed Gas Arctic Pipeline, proposed Mackenzie Valley Pipeline Highway, the Alberta -Waneta BC natural gas pipeline and other projects.

I am also a founding director of the BC-based Valhalla Wilderness Society. We spearheaded campaigns that saved over one million acres of new protected areas in BC, including over ½ million acres for the spirit bear.

I have been doing bear research on the BC coast for the past 28 years, starting with grizzly bears in the Khutzeymateen Valley, now Canada's premier grizzly bear park. In 1987 I spearheaded research and conservation work for VWS on a proposal for a large protected area on the central coast for the spirit or Kermode Bear, which culminated in protection in 2006.

So you might say in terms of the Enbridge Northern Gateway proposal, I literally know well the situation from both ends, from my earlier environmental consulting work at the Syncrude Tar Sands and other energy projects to my extensive years bear research on the central coast.

Last August 31, I submitted by e-mail to the Joint Review Panel my Valhalla Society report on how an Enbridge-related bitumen tanker spill would cause significant adverse and irreversible environmental impacts to the rare and unique spirit bear subpopulation on Gribbell Island.

I wish to briefly discuss this research and add further relevant comments.

Before starting I wish to go on record with my objections to some of the format and rules of these hearings. They are far more rigid and inflexible than the Federal CEAA Panel hearings I was involved in for the proposed Prosperity Mine at Fish Lake. How can many of us say what we have to say in just 10 minutes, including trying to summarize my 28 years of bear research on the BC coast. Why can we not use Powerpoints? Why should we have to send copies of our technical reports submitted to the Panel to Enbridge, including their legal representatives? Enbridge should have to go on-line to access the same information we have the public have to get on-line. Why should the public be excluded from attending these hearings?

No my first point involves what I consider to be Enbridge's gross underestimations of risk and adverse environmental impacts and their gross overestimations of safety measures and clean up programs. I consider none of their projections credible or reliable. My conclusion was based primarily on independent data available from the 1989 Exxon-Valdez oil spill and other information that I was fortunate to have access to.

Since my report, more evidence has come forward to the Panel in the form of expert technical opinion to substantiate the risk of an imminent tanker spill. For example, Gerald Graham, a marine spill expert, has stated that calculations based on Enbridge's own research show there to be an 8.7-to-14.1-per-cent chance of at least one tanker spill greater than 31,500 barrels over a 50-year period. Also, last September three professional engineers, including two emeritus professors from UBC, predicted that there is a probability of 22 per cent that there will be at least one spill during the 50-year operational lifetime for the project.

All of this, however, is still scientific guesswork. What has been the reality?

We know that prior to the disastrous Exxon-Valdez tanker running aground, Alyeska predicted there would be only one spill every 241 years. Yet in 1985, eight years after the commencement of North Slope oil tanker traffic, the oil tanker ARCO Anchorage ran aground in Anacortes Harbour in Washington and spilled 239,000 gallons of crude (Vancouver Sun January 19, 2011). On Dec. 23, 1988 there was the Nestucca accident, in which 5,500 barrels of bunker C oil leaked from a barge off Grays Harbour, Wash. and drifted north into B.C. waters. The Exxon Valdez disaster occurred in 1989, the largest spill in history. In 1991 the Texaco refinery at Anacortes released 130,000 gallons of crude oil into the ocean (Vancouver Sun January 19, 2011).

This evidence speaks for itself. One or more major oil spills are the grim reality for the Great Bear Rainforest if Enbridge gets approved.

Safety measures? I understand that double hulls may have thinner metal and that if the Exxon Valdez had been double-hulled there would still have been a significant oil spill. Douglas Channel is far longer, more convoluted has more turns for super tankers than the Exxon Valdez had to contend with.

Containing and cleaning up a major spill? Given the huge storms and tidal currents that typify this area, how can this be possible? Only a small portion of a major spill could ever be realistically cleaned up and we now know from Exxon Valdez that oil deposited on beaches sand the ocean floor would be there for centuries to come, and just as toxic.

Additionally, clean up will include the burning of estuary wetlands. Enbridge tells us that a pipeline rupture above Kitimat could potentially spill 2-million litres of bitumen into the Kitimat River and could be the largest spill in Canadian history. The oil would flood onto the large estuary at the river mouth. To clean up oil-soaked plants on these wetlands, Enbridge tells us they would have to burn off the oil. Burn the oil off of sensitive estuaries! You've got to be kidding!

What their environmental study also fails to us is that, based on this projection, they would likely have to do the same for numerous other contaminated estuary salt marshes that would be impacted by either a Kitimat Pipeline rupture, a supertanker accident, or a spill from their terminal tank farm at Kitimat. Burning coastal estuaries - the primest and most sensitive bear, and other wildlife habitat in the entire coast, many of them in protected areas - would be ecologically devastating at a significant, adverse scale.

Enbridge's low risk safety claims, so-called double hulls, and reassurances of clean up are thus a technological illusion that is being perpetrated by the company to play down the significant adverse impacts that a totally predictable major oil spill would have on the Great Bear Rainforest.

If anyone doubts the real risks involved they should simply spend a night in a boat up there by Gribbell Island in one of those huge fall coastal storms, as we have many times, with gale or hurricane force winds a-blowing, terrifyingly at times, and ask themselves how a tanker spill in these normal fall-winter conditions could ever be properly contained before spreading far and wide and doing irreversible damage for centuries.

Based on this evidence alone, I ask that the Panel not approve this project.

Now to my second point - impacts on bears. Enbridge's claims in their environmental-social assessment that although a tanker spill would involve serious threats to birds, mammals, and other biota, the impacts would still only be short term and not affect populations. For bears, only a limited number would be affected, they say.

Enbridge provides very scant evidence to support this earth-shaking conclusion. I ask this Panel not to accept Enbridge's conclusion simply for the lack of credible, supporting technical documentation.

My spirit bear report, using obvious evidence that Enbridge chose to overlook, shows the opposite of what Enbridge says will happen, especially for those bear populations proximal to and within what I call the 200 or more kilometre high impact zone of a potential major tanker spill. A major spill close enough to Gribbell Island could wipe out the Spirit Bears and poison the bears on nearby islands and the mainland coast. Oil contamination of bears would occur in a number of pathways. Since many bears feed or travel along the seashore, their fur would become coated with stranded bitumen. Also, many bears would end up ingesting oil-contaminated salmon, barnacles and mussels, as well as dead sea birds and marine mammals washed ashore after being killed by oil in the sea. We know from studies on polar bears that that the end result will be that many coastal bears would likely die a slow and painful death from such things such as blood disorders, kidney failure, and hypothermia due to loss of their fur.

Nowhere else on the whole Pacific Coast is evolutionary biology better represented than the different genetic occurrences of the white bear allele on the different B.C. Kermode islands and adjacent mainland, with particular emphasis on the high number of white bears on Gribbell Island. About 40 % of the island's small, semi-isolated population of 100-150 Kermode bears is white. Evolutionary scientists consider Gribbell to be "the mother island of the white bears", where the white bear gene likely originated.

How could the loss from one major Enbridge oil spill of such a rare and evolutionary unique bear treasure, that took eons to create, ever be mitigated? What would we tell our children?

I thus ask the Panel to accept the findings of my report - that the loss or reduction of the rare genetic sub-population of the world-famous spirit bears on Gribbell Island alone represents a **significant, adverse environmental impact** that is inevitable if approved Northern Gateway is approved.

Now to my third point. Because of the high number of white bears, safely viewing white bears on Gribbell Island has become the cornerstone of multi-million dollar low-impact ecotourism on the BC coast as well as the centerpiece of a viable tourism program by the Gitga'at First Nations.

The first-ever bear viewing programs on the BC coast were started by Valhalla Society myself biologists in 1987 to help save the Kutzeymateen as western Canada's premiere grizzly bear sanctuary. We developed low impact guidelines for our non-profit tours. These included spirit bears. We also trained First Nations to develop their own commercial bear viewing operations. Largely from these efforts, the spirit bear became the poster child for a global campaign that led to the ultimate protection of 1/3 of the Great Bear Rainforest. Today there are now 28 commercial bear-viewing operations on the BC mainland coast, many focused on the spirit bear. These now generate millions of tourism dollars annually, including major revenue for First Nations such as the Gitga'at bear-viewing program on Gribbell Island.

Logically, it follows that an inevitable tanker spill that wipes out or reduces spirit bear and grizzly populations will also have **significant adverse social and economic effects** on commercial and public viewing bear viewing.

Please do not approve Northern Gateway.

I would like to end my submission by stating that the Tsimshian legend of the spirit bear refers back to the Ice Age.

Quoting Dr. Kermit Ritland, the UBC genetic authority on the Kermode bear: “*One thing is for sure, black oil will not look good on a white coat.*”

Indeed!

What will we tell our children when was knew an oil tanker spill was inevitable and we approved it anyway.

Thank you.

References Used:

Ritland, K. 2011. The Spirit Bear: A swirl of scientific, management and ethical issues. Branchlines. UBC Forestry. Vol. #22-3. Pp. 16-17.

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