



November 4, 2016

Brett Maracle, Panel Manager
Canadian Environmental Assessment Agency
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Email: PacificRefinery@ceaa.gc.ca

Re: Pacific Future Energy Project

To Whom It May Concern,

This letter provides SkeenaWild Conservation Trust's (SkeenaWild) comments regarding what should be examined during the Canadian environmental assessment of the Pacific Future Energy Refinery proposal. Pacific Future Energy is proposing to construct and operate a new bitumen oil refinery located between Terrace and Kitimat, British Columbia. As proposed, the Pacific Future Energy Refinery (i.e., the Project) would include a refinery, a 40-km access road, a power-plant, a rail yard, a bitumen storage facility, and fresh-water pipeline.

SkeenaWild's position is that the following aspects of the Project should be examined during the Canadian environmental assessment due to their potential to create harmful environmental effects: 1) Transportation of oil by rail, 2) The access road, 3) The oil refinery, 4) Water extraction and discharge, 5) Contributions to greenhouse gas emissions and climate change, 6) Routes for exported product.

1. The Project proposes to receive large volumes of raw bitumen transported by rail (an estimated 360 to 480 rail cars each day (~200,000 thousand barrels per day or ~32 million litres per day) from the Tar Sands of Alberta for 60 years; such transport will occur across provincial boundaries, and will cross more than one thousand watercourses, including Canada's two largest salmon producing systems, the Fraser River and Skeena River. While the risks of transporting raw bitumen via pipelines has been studied in some detail, the ecological and human health risks associated with rail-based bitumen transport have not. Additionally, the proponent contends that transportation of raw bitumen is "safer" than diluted bitumen. We wish for such evidence to be produced during the Environmental Assessment, including the use/cost/availability of heated rail cars for the transportation of raw bitumen. Furthermore, SkeenaWild requests that the ecological and health/safety threats of the transportation of oil by rail be fully examined, with a particular emphasis on wild salmon habitat and human communities.

2. The Project proposes to build a 40-km access road across sensitive watercourses, which may have adverse effects on fish and wildlife habitat. The access road is proposed to cross several tributaries of the Kitimat River (a high value wild salmon spawning and rearing system), including the Wedeene River and the Little Wedeene River. SkeenaWild requests that these potential impacts to wild salmon, including



potential chronic and acute downstream impacts from sediment loading to the aquatic food-web.

3. The Project proposes to build an oil refinery, where air contaminants will be released into the confined airsheds of Kitimat and Lakelse. The risk to air quality from this project should be assessed not only as a single contributor, but also when combined with all other existing and proposed emitters within both the Kitimat and Lakelse airsheds.

Additionally, the proposed 1,000-hectare oil refinery, rail yard, utilities, and ancillary facilities is to be situated atop forested habitat with several red-listed ecological communities, potentially utilized by multiple at risk wildlife species, including Marbled Murrelet, Northern Goshawk, and Grizzly Bear mega-fauna. The area footprint specifically is defined as situated within a Grizzly Bear Identified Watershed, which is in relative close proximity to salmon spawning streams (e.g., Schulbuckhand Creek) of the Lakelse sub-basin frequented at critical times by Grizzly Bears. Such high-value habitat should be examined in the context of important neighbouring areas.

4. The Project is expected to extract an estimated 48,000 m³/day of raw source water during operations, either in the form of groundwater or surface water from the Kitimat River, for 60 years. If groundwater is proposed, we request that the source be mapped and quantified for available volume, and be subjected to extensive examination as to its role in the surrounding aquatic ecosystem – with particular emphasis on its role in stabilizing future climate change effects. If surface water from the Kitimat River is proposed, we request that the potential effects on aquatic communities in the Kitimat River be thoroughly examined with regards to the daily/seasonal extraction. Additionally, wastewater is proposed to be released into the marine environment of Douglas Channel; such discharge must be assessed for potential adverse effects to salmon and marine communities in the immediate discharge zone and zone of influence

5. The Project will add to our current provincial and federal greenhouse gas (GHG) emissions. Skeenawild requests that there be a full life-cycle assessment of the carbon footprint that will result if the Project is built, including all upstream emissions from the extraction of oil in Alberta, transportation of oil, the refining of oil, the transportation of all refined products, and the consumption of those products. Furthermore, we request that a cumulative effects assessment of the greenhouse gas emissions be undertaken, which is required under Canada's environmental assessment legislation; such an assessment would analyze the cumulative contribution of this project to Canada's stock of GHG emissions over its 60-year lifespan, and it would also address the manner and extent to which approval of this project might undermine Canada's ability to achieve its Paris GHG emission reduction duties. Finally, we urge that GHG emission calculations are



placed in the context of climate change targets set by provincial and federal authorities.

6. As is proposed, the refinery will refine crude oil transported from Alberta. However, there currently is no plan for the refined products. How will the refined products be transported? Such information is critical to the environmental assessment. Therefore, we request that the proponents include information regarding how the refined products ultimately will be transported.

In addition to the concerns listed above, SkeenaWild requests that a regional study (federal/provincial) under section 74 of the Canadian Environmental Assessment Act, and a strategic study under section 49 of the BC EAA, be performed. Such a joint review should initially focus on two questions: 1) Is a Kitimat bitumen-based oil refinery even grossly feasible at current and reasonably foreseeable costs and market demands, and 2) What are the costs and risks to the environment and human health of rail-based bitumen transport. We contend that these two factors must be decided *before* we spend taxpayer's dollars on the minutia of the effects of the refinery itself.

In closing, SkeenaWild's position is that the proposed Pacific Future Energy Refinery Project must be examined to its fullest extent, with particular emphasis on the potential impacts to fish habitat, human health, and climate change.

We appreciate you considering our concerns.

Respectfully,

<Original signed by>

Greg Knox
Executive Director