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Pipeline and Tanker Trouble: The Impact to British Columbia's Communities, Rivers and Pacific Coastline from Tar Sands Oil Transport

The Canadian government is considering a proposal to build a pipeline under mountains and across rivers that could carry more than half a million barrels of raw tar sands crude oil (known as bitumen) daily across important salmon-bearing rivers, coastal rainforests, and sensitive marine waters. The Northern Gateway pipeline, proposed by energy company Enbridge, would stretch over 1,000 kilometres to connect the tar sands of Alberta with the Pacific coast of British Columbia. From that point, the extracted bitumen would be transported by supertanker to refineries in Asia, California, or elsewhere.

Both the extraction and transportation of tar sands oil are a destructive business. The substance is extracted by either strip-mining or by a process that would heat the ground beneath Alberta's Boreal forests and wetlands, polluting the air, damaging the climate, creating lakes of toxic waste destroying habitat, and threatening community health.

Our Nations are the wall this pipeline will not break through. Our lands and waters are not for sale, not any price. What Enbridge is offering is the destruction of our lands to build their project, and the risk of oil spills for decades to come which could hurt everyone's kids and grandkids."

—Chief Larry Nooski, Nadleh Whut'en First Nation, member Nation of the Yinka Dene Alliance, 2011

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In British Columbia, the Northern Gateway pipeline will cross more than 785 rivers and streams, including many which are critical fish-bearing habitat, and it will cross through the headwaters of three of the continent's most important watersheds—the Mackenzie, the Fraser, and the Skeena. The geology of this area is complex, and destructive landslides are common. At Kitimat on the Pacific coast, the tar sands oil would be transferred to large oil supertankers that would then traverse 185 kilometres of inner coastal waters, including the Douglas Channel, before reaching open ocean in the unpredictably dangerous Hecate Strait, Queen Charlotte Sound and Dixon Entrance.[1] There is a reason that large oil supertankers have not used these waters in the past: the route poses many navigational challenges for large vessels, even under ideal conditions.[2]

While the potentially devastating impacts of tar sands production are well documented, the increased risk and potential harm from transporting bitumen is less known. There are unique challenges and risks associated with transporting diluted bitumen compared to conventional oil. Diluted bitumen may weaken pipelines at a faster rate than conventional oil due to its acidic, sulphuric, abrasive and viscous nature.[3] When tar sands pipelines spill, the spills are especially hazardous due to the explosive properties of diluted bitumen and the concentration of toxins found in bitumen, like benzene and polycyclic aromatic hydrocarbons. Further, cleaning up a bitumen spill is very challenging using conventional cleanup technologies like booms and skimmers because heavy bitumen can sink in water. And current pipeline safety regulations in Canada do not address the unique challenges associated with shipping diluted bitumen.

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The commercial salmon fishery in British Columbia harvests around 28 million salmon with a total value of approximately CAD$250 million.[4] Collectively, recreational fishers generate approximately CAD$550 million in direct expenditure, and nature tourism activities contribute hundreds of millions of dollars to the B.C. economy each year.[5,6]

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Female moose and calf near Sutherland River Provincial Protected Area.

A major spill from the Northern Gateway Pipeline could be catastrophic. On July 25, 2010, an Enbridge pipeline carrying tar sands diluted bitumen ruptured, spilling more than three million litres of tar sands crude into the Kalamazoo River watershed in Michigan. A government study found that nearly 60 percent of individuals living nearby experienced respiratory, gastrointestinal, and neurological symptoms consistent with acute exposure to benzene and other petroleum related chemicals.[7] More than a year after the spill occurred, approximately 60 kilometres of water and sediment, and 80 hectares of wetlands, were still contaminated with tar sands crude. The Northern Gateway pipeline would cross significantly more remote areas; discovery and cleanup of a spill in these areas would be hampered by factors such as the remoteness, heavy winter snowpack, flooding, and potential avalanches and rockslides.

A 2011 report from the Bulkley Valley Research Centre concluded that, "the unstable mountainous terrain across west central B.C. is not a safe location for pipelines. Eventually a landslide will sever a pipeline. An alternative safer route through British Columbia needs investigation."[8]

The social, economic, and environmental costs to British Columbia of a tar sands pipeline and the associated oil supertanker traffic would be enormous, including:

- Compromising the lifestyles of First Nations who depend on the region's lands and waters for their livelihoods, culture, and health.
- Threatening the economic well-being of the communities of British Columbia that depend on fisheries and forests.
- Potential devastation from a major oil spill from the pipeline or an oil supertanker, which could destroy economically important salmon habitat, as well as the habitat of Spirit Bears and grizzlies, and whales, orcas, and other marine life that depend on these rich coastal waters.
- Harm from an oil spill to the Great Bear Rainforest that the province and First Nations have worked hard to protect from unsustainable forestry practices and to shift to a conservation-based economy.

The Opposition to the Pipeline and Tanker Traffic Is Strong

The Northern Gateway pipeline faces considerable hurdles given the opposition from First Nations and the substantial public support for a permanent ban on crude oil tankers on the B.C. North Coast. The tankers would take crude oil from the pipeline and then transport it overseas. More than 130 First Nations groups in Western Canada have publicly stated their opposition to tankers and tar sands pipelines.[9] Of these Nations, 70 have declared outright bans on the transport of tar sands crude through their traditional territories, whether by tanker or pipeline. All federal opposition parties in Canada— including Liberals, New Democrats, and Bloc Quebecois—have signalled their support for a permanent tanker ban. Four out of five British Columbians support a ban, as do more than 40 businesses and nearly 50 citizen organizations representing tens of thousands of Canadians.

PROTECTING COMMUNITIES AND WATERS

Canada and British Columbia must take several steps in order to prevent a future diluted bitumen spill from devastating First Nation and non-First Nation ways of life and the rivers, lands, and coastal waters of British Columbia. These steps are essential for protecting salmon fisheries, wildlife habitat, critical water resources, and ecosystems unlike anywhere else on Earth.

- The Federal Government should legislate a permanent large oil tanker ban in accordance with the Coastal First Nations tanker ban and the Save the Fraser Declaration.
- The Government of British Columbia should reject northern coast oil tanker proposals as a matter of policy.
- The Joint Review Panel should reject the proposed Northern Gateway pipeline project.
- Canada should restrict further diluted bitumen pipeline development until adequate safety regulations are in place and should evaluate the need for new Canadian pipeline safety regulations.
- Transport Canada should commission an independent study on the impact of diluted bitumen on oil tankers.
- The oil pipeline industry should take adequate precautions for pipelines currently transporting diluted bitumen.
- Canada should strengthen the assessment of risk to pipelines from landslides and snow avalanches.

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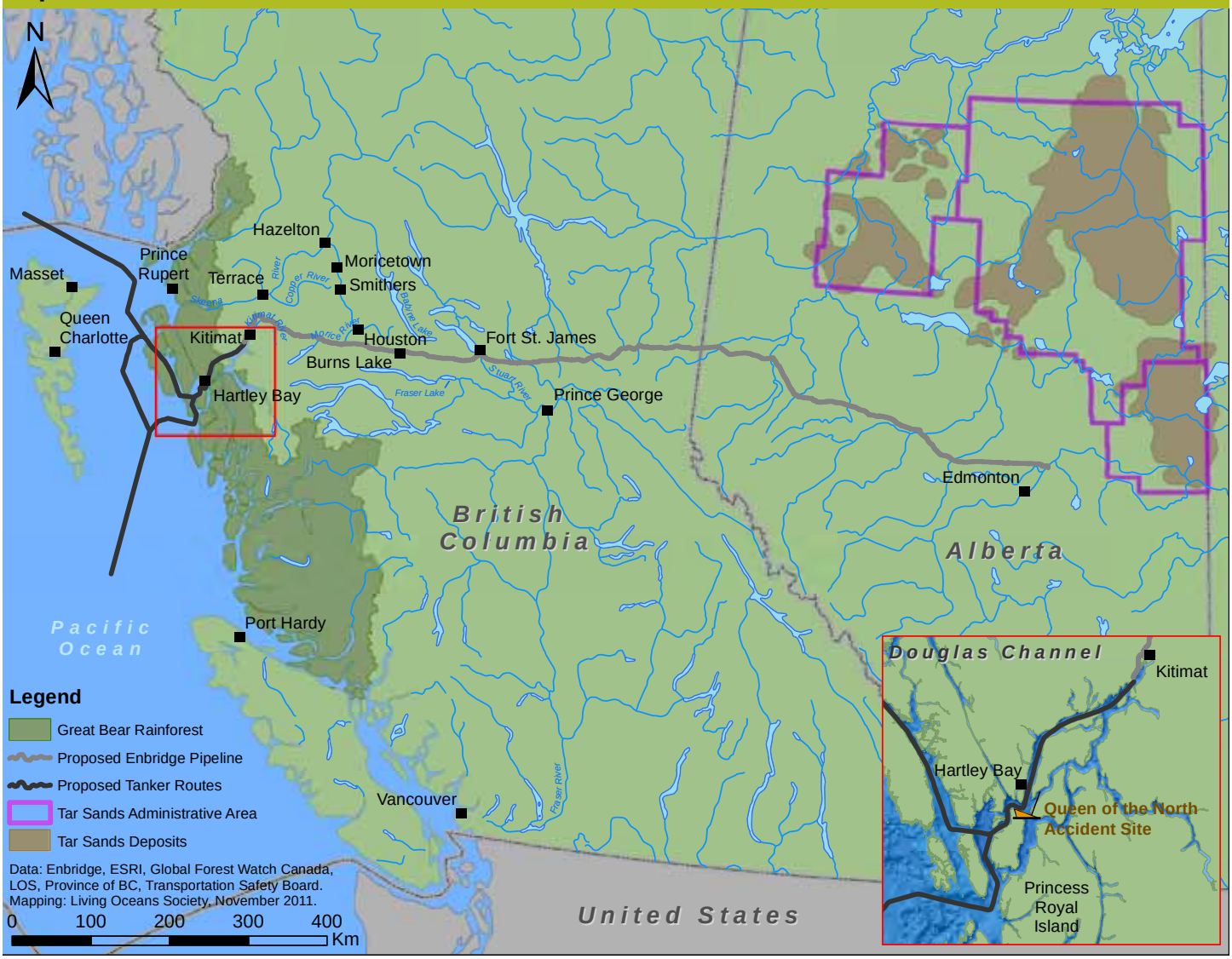
Great Bear Rainforest and the Spirit Bear

The Great Bear Rainforest is a sanctuary for thousand year old western red cedar trees and home to black bears, grizzlies, wolves and countless other species. But even as long-term protections are being put in place, the Northern Gateway pipeline and associated tanker traffic poses a new threat. The pipeline will facilitate over 400 oil tanker transits back and forth through the heart of the Great Bear Rainforest and the core habitat of the Spirit bear. The globally rare Spirit Bear has become a worthy ambassador of the mystery and magnificence of this rainforest for a good reason. If an oil spill occurs, they will be among the first terrestrial mammals to be threatened.

Pipeline and Tanker Routes



Endnotes

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