

# THE ENBRIDGE NORTHERN GATEWAY PIPELINE: DO BRITISH COLUMBIANS STAND TO GAIN?

WEST COAST ENVIRONMENTAL LAW – 2009

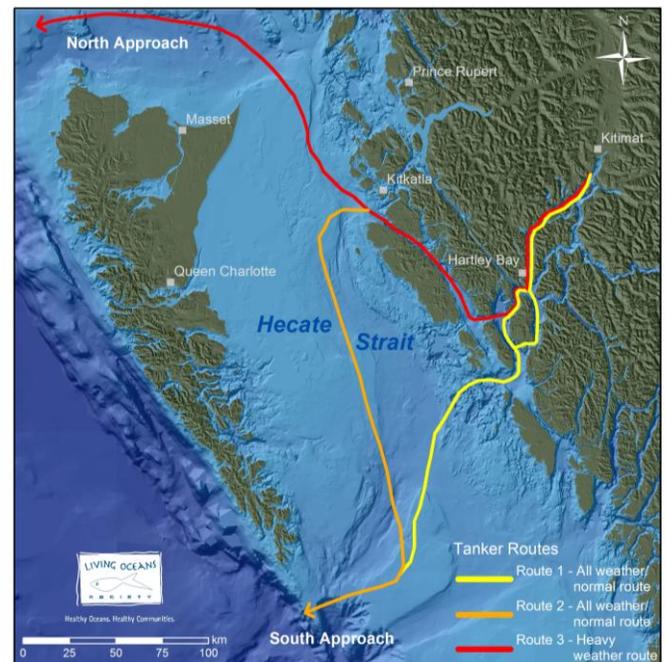
## 1. What is the Enbridge Gateway Pipeline Project?

The current Enbridge Gateway proposal includes two parallel 1,170 kilometre pipelines from the tar sands in northern Alberta out to Kitimat. One pipeline would carry between 400,000 to 1,000,000 barrels a day of crude oil from the Alberta tar sands to the BC coast (averaging 525,000 barrels a day<sup>1</sup>), while the second pipeline would carry 193,000 barrels a day of condensate,<sup>2</sup> a chemical and petroleum mixture used to dilute tar sands crude oil extracted so that it can travel by pipeline.

The project also includes the construction of a loading facility, including tank farms, near Kitimat. Tankers would begin to travel to British Columbia's coast to transport oil and condensate to and from the United States, China, India and other markets. It is anticipated that approximately 225 condensate and crude oil-laden tankers a year<sup>3</sup> would travel along the coast and 140 kilometres up a fjord to the Kitimat terminal (see map of proposed routes). This traffic could include approximately 18 condensate and crude oil tankers per month, including four to five Very Large Crude Carriers (VLCCs) with a capacity of 2 million barrels of oil or more per VLCC. Each of these ships is about 350 metres long – the length of 3.5 football fields– and 60 metres wide.<sup>4</sup>

Northern communities and First Nations first began to learn the details of the proposed Enbridge Gateway pipeline project in 2005. In late 2006, however, Enbridge requested that the regulatory review process for the project be delayed indefinitely. In June 2008 Enbridge wrote to federal regulators, indicated that it was resuming activity on the project and requested that the environmental assessment process be started again.

Image courtesy of the Living Oceans Society, [www.livingoceans.org](http://www.livingoceans.org)



## 2. What are the risks of lifting the tanker traffic moratorium?<sup>5</sup>

Approval of the Enbridge Gateway pipeline project would require creating a loophole in or lifting of a 37-year-old federal moratorium on crude oil tanker traffic in British Columbia's fragile inside waters.

The threats from tanker traffic include air pollution, ballast discharge, and terminal accidents during loading and discharge. The most significant environmental concern, however, is the risk of oil spills from tanker accidents.

The north coast is an extremely ecologically rich area. It includes numerous salmon and Gray whale migratory routes, at least 650

<sup>1</sup> Enbridge Information Brochure, January 2009, available at <http://www.northerngateway.ca/files/NGP-Brochure.pdf>.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> Statistics in this section from Living Oceans Society. 2004. *Offshore Riches: An Evaluation of the Real Wealth of Offshore British Columbia*, Submission to the Public Panel Reviewing the Moratorium on Offshore Oil and Gas in British Columbia.

spawning rivers, the Pacific Flyway, and the feeding habitat of Humpback whales and Orca.

The commercial fishery in BC employs approximately 16,000 people. Sport fishing, fish processing and commercial fishing generate close to \$1.7 billion combined each year. In addition, the north coast crab fishery supports 41 commercial crab vessels that fish Dungeness crab in Hecate Strait; from this fishery alone \$20 million worth of crab is produced, and it employs 145 people on vessels and 250 shoreworkers.

An oil spill along the BC north central coast could devastate marine animals and destroy their habitats<sup>6</sup> as well as drastically affect the fishing and tourist industries.

Photo courtesy of the Exxon Valdez Oil Spill Trustee Council.



### 3. How likely is a spill?<sup>7</sup>

The north and central coast waters present an extremely risky environment for activities such as coastal oil and gas extraction and tanker traffic. The area is one of the most active earthquake zones in Canada and the stormy unpredictable nature of the weather has made it famous for its weather bombs, the most severe type of winter storm. Winter winds have been recorded at 200 km/hour, with waves of 29 metres.

Based on the amount of oil proposed to travel through the Northern Gateway pipeline, there would be a crude oil spill of over 1,000 barrels about every five years, with a catastrophic spill of over 10,000 barrels once every 12 years.<sup>8</sup> Recovering 15% of the oil spilled from a major tanker accident is considered a success. The technology used to recover oil from the ocean only functions in ideal conditions such as calm weather. Winds exceeding 25 knots or waves exceeding 1 metre greatly hamper oil spill clean-up efforts.

<sup>6</sup> Stuart Hertzog, *Oil and Water Don't Mix – Keeping Canada's West Coast Oil Free*, David Suzuki Foundation report, March 2003, at 29.

<sup>7</sup> *Ibid.*

<sup>8</sup> Dogwood Institute, *Fact Sheet: Estimated Frequency of Oil Spills from Enbridge Inc.'s Northern Gateway Project*, March 5 2009, adapted from table 3.5 of Timothy Van Hinte. 2005. *Managing impacts of Major projects: An analysis of the Enbridge Gateway Pipeline Proposal*, Simon Fraser University thesis available at <http://ir.lib.sfu.ca/handle/1892/707>.

## 4. Will the pipeline impact fish?

In order to build the Enbridge Gateway pipeline, there would be over 1,000 stream and river crossings. Spills and leaks can be a major source of contamination in rivers, streams and oceans. In addition, pipelines can directly expose streams, rivers and lakes to oil and other toxic substances that can result in the death or disease of fish and aquatic insects.

Construction and operation can also impact fish through the sediment that is released into streams and rivers during road building, road washouts and the construction of water crossings. Certain concentrations of sediment can kill fish directly.<sup>9</sup> Sediments can also increase the amount of stress that fish experience, disrupting their feeding, growth, social behaviour and susceptibility to disease. Sediments may also impact fish eggs and affect the survival of juvenile fish, and make water cloudy, interfering with light penetration, reducing the number of plants, and decreasing the habitat for insects that fish rely on for food. Road building practices by industry users can threaten salmon spawning grounds with siltation due to slumping of stream banks.<sup>10</sup>

## 5. How will First Nations be impacted?

The Supreme Court of Canada has confirmed that the Crown has an ongoing duty to consult and accommodate First Nations with respect to decisions that potentially infringe Aboriginal Title and Rights. If this duty is not met, approvals and decisions are vulnerable to legal challenge.

The Enbridge Gateway pipeline would affect the traditional territories and rights of at least 31 inland and 10 coastal First Nations. A recent study has concluded that the pipeline would have a devastating impact on cultural activities such as hunting, fishing, trapping, berry picking, spiritual activities, traditional village sites, recreational activities, and travel routes, with few if any corresponding benefits to First Nations communities.<sup>11</sup> The impacts of an oil tanker spill on the rights and cultures of coastal First Nations and others that depend on salmon are potentially devastating.

Several First Nations have put the Crown on notice that they must be formally involved in all decisions around the proposed pipelines, including preliminary decisions as to whether to lift the tanker moratorium. To date this has not occurred. In 2006 the Carrier Sekani Tribal Council filed a legal challenge to the federal government's decision to refer the Enbridge Gateway pipeline

<sup>9</sup> I.K. Birtwell, 1999. Effects of sediment on fish and their habitat. Pacific Scientific Advice Review Committee (PSARC) Research Document HAB-99-1, Fisheries and Oceans Canada, Canadian Stock Assessment Secretariat, Ottawa p.34.

<sup>10</sup> *Carrier Sekani Tribal Council Aboriginal Interests & Use Study on the Enbridge Gateway Pipeline*, 2006, p.22. Available at <http://www.cstc.bc.ca/cstc/67/enbridge>.

<sup>11</sup> Overview of the Carrier Sekani Tribal Council Aboriginal Interests & Use Study on the Enbridge Gateway Pipeline, 2006. p.4.

project to a joint review panel of the Canadian Environmental Assessment Agency (CEAA) and National Energy Board (NEB) without first dealing honourably with them. Based on recent case law,<sup>12</sup> the Crown may be vulnerable to a similar legal challenge when an agreement is reached between federal regulators regarding the review process for the Enbridge Gateway pipeline project.

## 6. What are the health risks?

There are potentially serious risks to human health from oil and gas development. Oil spills in particular carry a significant potential for harm through exposure to polycyclic aromatic hydrocarbons (PAHs), a known carcinogen, that persist long after an oil spill has occurred. Condensate also contains persistent PAHs, although the impacts of condensate spills are less well-known. Land-based oil spills carry the potential to contaminate drinking water supplies through direct spill into rivers and streams, or through leaching of spilled oil into groundwater. Communities also face the health risks associated with consuming fish and wildlife contaminated by spilled oil or other toxic substances used in oil and development.

The day-to-day impacts of increased air pollution, noise, as well as the psychological stress of living with the risk of a pipeline or tanker spill are all health impacts that the communities along the pipeline and tanker traffic routes would face if a northern pipeline is built.

## 7. Will British Columbians benefit from the pipeline?

Enbridge estimates that only 47 permanent jobs would be created in Kitimat from the marine terminal.<sup>13</sup>

Enbridge stated in its winter 2009 public brochure that the proposed pipelines would create over 4,000 jobs along the pipeline route during the three-year construction phase.<sup>14</sup> More recently, Enbridge has clarified in more technical documents that only 1200 jobs will be created at peak employment.<sup>15</sup> But, it is not clear that British Columbians would benefit from those jobs. In order to meet the ambitious timelines set for this project, it is likely that work crews from Alberta or foreign countries would be brought in to ensure that the pipeline is built on time.<sup>16</sup>

Enbridge has also indicated that it may keep the work camps completely separate from existing northern communities,<sup>17</sup>

<sup>12</sup> *Canada (Environment) v. Dene Tha' First Nation*, 2006 FC 1534 (Fed. Ct.) affirmed 2008 FCA 20 (Fed. Ct. of Appeal).

<sup>13</sup> Enbridge Northern Gateway. *Kitimat Terminal and Marine Transportation Environmental and Socio-economic Assessment Discussion Guide*, April 2009.

<sup>14</sup> *Enbridge Information Brochure*, January 2009. Note that this is 1000 less than promised three years ago: Scott Simpson, "5,000 jobs promised in pipeline proposal," Vancouver Sun, June 28, 2006.

<sup>15</sup> *Kitimat Terminal and Marine Transportation Environmental and Socio-economic Assessment Discussion Guide*, April 2009.

<sup>16</sup> Enbridge Gateway Discussion Forum, Prince George, BC, October 4, 2006.

<sup>17</sup> *Ibid.* See also Enbridge, *Preliminary Information Package for the Gateway Pipeline Project*, October 2005, available on National Energy Board's public registry at [www.neb-one.gc.ca](http://www.neb-one.gc.ca)

meaning that there would be few or no spin-off economic benefits from the added influx of workers.

## 8. What are the long term impacts of oil and gas development?

There are several proposed pipeline projects, including Enbridge Gateway, on the horizon for northern British Columbia. Over time, the effects of multiple projects on the land can result in serious long-term changes for people, wildlife and the land. These changes are called "cumulative effects" because the sum of their impacts is greater than the impacts of a single project. When one company builds roads and facilities, it makes it more affordable for other companies to develop the areas nearby. A pipeline may provide incentive to develop oil, gas, or coalbed methane because once one pipeline is built, there then exists an easy way to ship these products to market. Also, once roads appear, forestry companies may ask to use them to access forest previously too expensive to access.

In northeastern BC we have already seen how the result can be a spider web of development, with thousands of kilometers of roads and seismic lines and many cleared areas. In 2003 alone, more than 21,700 kilometres of seismic lines were cut in British Columbia, bringing the estimated total length of seismic lines in the province to 110,400 kilometres, the equivalent of crossing Canada more than 20 times.<sup>18</sup>

Tar Sands mine. Photo courtesy of David Dodge, Pembina Institute, [oilsandswatch.org](http://oilsandswatch.org)



Furthermore, the construction of this pipeline will enable an expansion in development of the tar sands, which ranks as one of the most damaging energy projects on the planet. The oil-rich sand is removed from the ground through a giant mining operation that leaves huge holes and toxic tailing ponds that can be seen from the moon. The oil is then essentially cooked out of the tar-laced sand using vast amounts of natural gas. A huge amount of natural gas, almost equal to that produced from the Mackenzie Valley, will be

<sup>18</sup> West Coast Environmental Law et al, *Oil and Gas in British Columbia: 10 Steps to Responsible Development*, Vancouver, 2004 at 15, available at [www.wcel.org/wcelpub/2004/14100.pdf](http://www.wcel.org/wcelpub/2004/14100.pdf).

needed to extract tar sands oil. In fact, it takes far more energy, water, and land area to produce oil from tar sands than conventional methods. In the result, about five times the amount of greenhouse gasses are emitted.<sup>19</sup>

## 9. What happens to wildlife and the land?

In Alberta and northeastern British Columbia, the web of oil and gas development, including pipelines, has had harmful effects on many wildlife species, ranging from the loss of habitat to poisoning to a reduction in herd size and home range. Species in decline as a result of industrial development in Alberta include caribou, lynx, martin, fisher, wolverine and various bird species.<sup>20</sup> The web of roads, well pads and related oil and gas facilities disrupts the way animals use the land for eating and cover, and affects their movement and migration patterns. Pipelines and related roads can contribute to fragmentation of habitat of animals such as grizzly bears. Roads and pipeline corridors also allow people easier access to an area, which can lead to increased hunting and poaching.

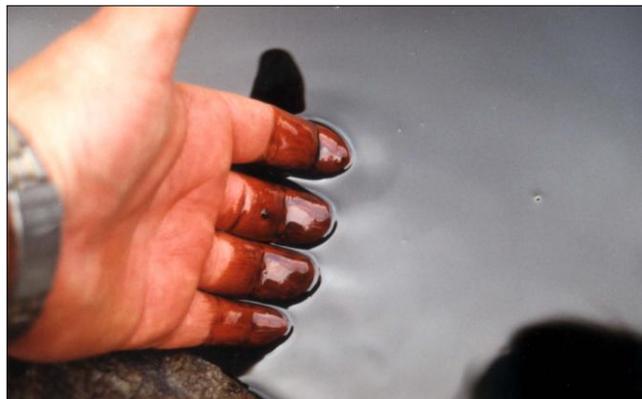
## 10. Will the law protect British Columbians and the land?

**Pipelines.** Pipelines like Enbridge Gateway that cross provincial boundaries are regulated by the federal government through the NEB. A joint review with CEAA would be necessary prior to approval; however, under the current regulations, the recommendations made in the CEAA assessment are non-binding and the project could be approved even if significant adverse environmental and socio economic effects were found.<sup>21</sup> In fact, statistics available from CEAA indicate that on average, over 99% of the projects submitted to CEAA have been approved.<sup>22</sup> Furthermore, the courts have held that a CEAA panel has no mandate to conduct aboriginal consultation.<sup>23</sup>

The potential for significant environmental harm from pipelines is high. Federal and provincial regulations and law have failed to prevent pipeline spills and leaks in Canada: Between 1980 and 1997 an average of 674 pipeline failures occurred every year in Alberta. Another study found that pipeline spills outnumber spills from all other sources combined, and that pipelines and fixed

facilities are responsible for more than 2/3 of oil split into water or onto land.<sup>24</sup>

Pine River Spill photo courtesy of Wayne Sawchuk



We have already seen pipeline disasters right here in British Columbia. In August 2000, a Pembina Pipeline Corporation oil pipeline ruptured and spilled roughly one million litres of crude oil into the Pine River in northeastern British Columbia. On July 24, 2007, a pipeline rupture in an urban neighbourhood in Burnaby spilled more than 240,000 litres of crude oil into Burrard Inlet, oiling beaches, marine life and other wildlife several kilometres from the spill site.

Given the potential catastrophic impacts of a pipeline spill, and the lack of confidence that the regulatory process will protect communities from these risks, adding new pipelines across northern British Columbia causes very real concern to many British Columbians.

**Tankers.** Since 2006 the federal government has failed to enforce the tanker moratorium, allowing Encana to import condensate by tankers to the Methanex Terminal in Kitimat. This is not the course of action favoured by British Columbians. Polls consistently show that at least 7 out of 10 British Columbians support a ban on oil tankers in British Columbia's inside coastal waters. It is time to strengthen the existing tanker moratorium through a legislated prohibition on oil tanker traffic in our sensitive northern waters.



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<sup>19</sup> Nyboer, John & Tu, JianJun. 2008. *GHG Emission Trend Analysis in the Fossil Fuel Production Industries, 2008 Update*. Burnaby (B.C.): Canadian Industrial Energy End-Use Data and Analysis Centre, Simon Fraser University at 36, cited by Environment Canada, 2008. *National Inventory Report – Greenhouse Gas Sources and Sinks in Canada, 1995-2006* (Submission to the UN Framework Convention on Climate Change).

<sup>20</sup> The Pembina Institute and the Canadian Parks and Wilderness Society, Edmonton. 2006. *Death by a Thousand Cuts: Impacts of in situ oil sands development on Alberta's boreal forest*, at 50.

<sup>21</sup> *Canadian Environmental Assessment Act*, R.S.C. 1999, c. 33, s. 37.

<sup>22</sup> Canadian Environmental Assessment Agency Statistical Summary Reports for fiscal years 2005 through 2008, available at <http://www.ceaa-acee.gc.ca>. See also Boyd, David R. "Unnatural Law" UBC Press 2003 p.151.

<sup>23</sup> *Dene Tha'* (Fed. Ct.), at para 35.

<sup>24</sup> United Nations Environment Programme ([www.unep.org](http://www.unep.org)); International Tanker Owners Pollution Federation ([www.itopg.com](http://www.itopg.com)); US Environmental Protection Agency ([www.epa.org](http://www.epa.org)).