



COASTAL FIRST NATIONS – Oil Spill Fact Sheet

March 2012 – *Protecting our coast, our culture and our economy.*

By The Numbers

\$5.3 – \$22.7 billion

The estimated cost of an oil tanker spill in Coastal First Nations' traditional territories.*

\$1.3 billion

The maximum amount of coverage available from insurance and national and international pollution funds to pay for an oil spill.

ZERO

The liability Enbridge has in the event of a tanker spill outside its marine terminal.

7,620

The number of marine-dependent jobs in Coastal First Nations' traditional territories.

10

The number of years it would take to cleanup an oil spill on the BC coastline, using Canada's current response standard of 500 metres per day.**

1

The number of Very Large Crude Carriers (VLCCs) owned by Rafflesia Shipholding S.A., one of 379 "Anonymous Society" (S.A.) companies registered in Panama by the NYK Group.

- Shipping companies register individual tankers under individual numbered or "S.A." ship holding companies to reduce liability and financial risk in the event of a spill.
- Rafflesia Shipholding S.A. is the owner of the Tamba, a 302,107 tonne, double-hulled VLCC – the kind Enbridge wants to bring into British Columbia's coastal waters 225 times per year.
- Do "Anonymous Society" companies have the billions required to cleanup after a VLCC spill, or will First Nations, BC and Canadian taxpayers be left with the bill?

Source: A Review of Potential Impacts to Coastal First Nations from an Oil Tanker Spill Associated with the Northern Gateway Project (Gunton & Broadbent, 2012)

* The Enbridge risk assessment of a major oil spill utilizes findings from the Exxon Valdez oil spill (EVOS) to identify potential impacts of an oil spill on the Pacific North Coast.

It is useful to use findings from the EVOS to assess potential impacts because it happened in a nearby area with similar biophysical and socioeconomic characteristics.

** The Exxon Valdez affected close to 2000 km of Pacific North coastline.



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The Cost of an Oil Spill

Estimated damage costs of an oil tanker spill in CFN traditional territories (based on Exxon Valdez oil spill)

Damage Category	Economic Costs (in millions of 2010 CAD)	
	Lower Bound	Upper Bound
Economic Sectors		
Commercial Fishing	\$282.1	\$1,382.0
Tourism	\$35.1	\$35.1
Recreational Fishing	\$6.7	\$92.0
Non-use Natural Resource Damages		
Non-use Values	\$1,118.1	\$17,198.1
Wildlife Damages	\$45.7	\$213.0
Sociocultural Impacts		
Subsistence Use	\$13.2	\$42.5
Cultural and Heritage Impacts	\$1.4	\$1.4
Oil Spill Cleanup Activities		
Costs Incurred by Exxon	\$3,691.5	\$3,691.5
Total	\$5,193.8	\$22,655.6

Source: A Review of Potential Impacts to Coastal First Nations from an Oil Tanker Spill Associated with the Northern Gateway Project (Gunton & Broadbent, 2012)

Summary of marine dependent jobs in CFN traditional territories

Total Economic Value Component	Economic Value (annual value in millions of 2010 CAD)	Total Employment
Use Value		
Market Use Value		
Current Economic Activities		
Commercial Fishing	\$134.9	1,310
Seafood Processing	\$88.1	2,470
Aquaculture	\$18.2	180
Marine Tourism	\$104.3	2,200
Marine Transportation	\$18.6	800
Other	\$22.4	660
Subtotal	\$386.5	7,620
Non-Market Use Value		
FSC Salmon Harvests	\$0.7	n/a
Ecosystem Services*	\$28,484.7	n/a
Non-Use Value		
PNCIMA Marine Environment	\$67.1 - \$1,031.9	n/a
Total	\$ 28,938.9 - 29,903.7	7,620

Source: A Review of Potential Impacts to Coastal First Nations from an Oil Tanker Spill Associated with the Northern Gateway Project (Gunton & Broadbent, 2012)

*The value of ecosystem services is very challenging to measure and this value should be interpreted as a very rough order of magnitude of the actual value. Some values cannot be monetized and other values are difficult to measure due to data limitations. Therefore, actual values may be higher or lower than estimated values. As documented in the report, the estimates for market use values, FSC salmon harvests, and non-use values are conservative and actual values are higher.



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Double Hull Tankers Do Not Prevent Spills

Enbridge has committed to using double hull (DH) tankers. However, while DH tankers may reduce oil spill volumes, they do not eliminate the possibility and risk of an incident.

Motor Vessel	Year	Location	Cause/Nature of Incident	Amount/Type of Oil Spilled
Bunga Kalena 3	May 25, 2010	Strait of Malacca	Collision	18,325 barrels
Eagle Otome	Jan. 23, 2010	Sabine/Neches shipping channel Texas, USA	Collision with barge	10,714 barrels est.
Volgoneft 139	Nov. 11, 2007	Black Sea	Structural Failure During Storm	1300 tonnes Heavy Fuel Oil
DBL 152 (Barge)	Nov. 11, 2005	Gulf of Mexico	Collision with submerged remains of pipeline service platform	45,846 barrels Bunker Fuel
Limburg	Oct. 6, 2002	Yemen	Suspected Terrorist Attack	?
Aegean Sea Combination Carrier	Dec. 3, 1992	A Coruna, Spain	Ran Aground/Broke in Two	584,601 barrels
Baltic Carrier	Mar. 29, 2001	Baltic Sea	?	2700 tonnes Heavy Fuel Oil

Source: *Worldocean Consulting Ltd, 2010*

Enbridge has acknowledged that approximately 30 DH tanker incidents have been reported over the past 20 years. At least one of these, the Volgoneft, spilled 1300 tonnes of oil into the Black Sea after suffering a structural failure during a storm.

According to the United Nations, "...double-hulls have their own inherent problems. Many predict that in a few years' time there will be massive oil spills from double-hull tankers as the maintenance of a double-hull is more difficult than a single-hull, and there is also a problem with gas build up between the two hulls. This will make regular inspections of the vessels even more important."

Source: UNEP marine oil spill website.



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The Risk of Marine Incidents

The presence of pilots does not eliminate the risk of an incident. There were 25 reported marine vessel incidents in British Columbia between 2006 and 2009 with pilots on board:

2006	2007	2008	2009
8	7	4	6

Source: Pacific Pilotage Authority (PPA)

According to recently retired BC coastal pilot Captain Harrison J. Layton, and Michael McGuire, recently retired Manager of Dispatch Operations for the Pacific Pilotage Authority (PPA), weather conditions in the Queen Charlotte Sound, Dixon Entrance and Hecate Strait can be severe enough to affect navigation, create vessel problems and increase the risk of incidents. In evidence filed with the Joint Review Panel they note:

- There is no storm like Haida Gwaii storms during the fall and winter months;
- The Dixon Entrance can be one of the worst areas due to the geography and currents in stormy weather;
- Hecate Strait is very shallow and strong winds cause large waves and very strong tides;
- Severe weather conditions are not limited to the winter months - 'screaming' Northwest winds also occur in the summer;
- It would take a rescue tug at least 12 to 17 hours to get from Kitimat to Pine Island or Dixon Entrance, depending on location, speed and sea conditions.

Source - Marine Navigation: Measures to Reduce the Risk of Maritime Incidents (Layton & McGuire, 2011)