

SAN JUAN COUNTY OIL SPILL RISK CONSEQUENCES ASSESSMENT and EMERGENCY RESPONSE TOWING VESSEL COST EVALUATION

Addressing the need for a cost-benefit business case in support of a widely recommended oil spill prevention measure, San Juan County evaluated the cost of positioning a multi-mission emergency response towing vessel (ERTV) for Haro Strait/Boundary Pass relative to the economic, social, and environmental costs of a large oil spill in these waters, which are among the most at risk for spills in the Salish Sea.



Project Outcomes

Existing modeling of a 4 million gallon diluted bitumen spill—typically 20% capacity and deemed by some as a plausible worst case spill—at Turn Point predicts extensive sea surface and shoreline oiling throughout the region (and to a slightly lesser extent for a 1 million gallon heavy oil fuel spill). This study was limited to major consequences that would occur only within the County, excluding the costs of spill response and natural resource damage assessment and restoration.

The following damages in San Juan County were very conservatively estimated based on comparisons to documented losses from seven North American crude oil spills.

Impact Category	4-million-gallon spill of diluted bitumen		1-million-gallon spill of heavy fuel oil	
	Low	High	Low	High
Commercial Fishing	\$932,000	\$2,505,000	\$69,000	\$223,000
Aquaculture	\$99,000	\$149,000	\$57,000	\$86,000
Tourism Spending, Wages, and Local Tax Revenue	\$21,096,000	\$161,466,000	\$8,645,000	\$59,241,000
Property Values and Taxes	\$89,670,000	\$245,050,000	\$60,544,000	\$134,957,000
Recreational Use Value	\$8,032,000	\$37,156,000	\$2,688,000	\$18,422,000
Ecosystem Services	\$22,465,000	\$63,586,000	\$12,275,000	\$30,268,000
Total Damages	\$142,294,000	\$509,912,000	\$84,278,000	\$243,197,000

In comparison, the estimated annual cost of positioning an ERTV for Haro Strait/Boundary Pass ranges from \$4.3 to \$6.2 million.

Future Opportunities

Some industry and government representatives have questioned the effectiveness of an ERTV stationed in this area as an oil spill prevention asset. A [Vessel Drift and Response Analysis](#) similar to that performed for Canada’s West Coast would evaluate the likelihood of an ERTV responding to a vessel that has become disabled in time to prevent an accident or grounding that could cause a major oil spill and identify optimal stand-by locations. This analysis could be informed by a coordinated, trans-boundary review of commercial vessel incidents that have occurred in these shipping lanes.

Further analysis of the economic, social, cultural and environmental losses from both the direct impacts of an oil spill to the U.S. and Canadian businesses, residents, communities, and endangered species as well as the indirect, ripple effect would more fully characterize the catastrophic, long-term losses relative to the costs of additional spill prevention measures including stationing a multi-mission ERTV to protect this area.

LINK to REPORTS and WEBINAR

San Juan County
Marine Resources Committee

<https://www.sjcmrc.org/projects/oil-spill-prevention/>

