

# MARINE FISHERIES

**Study geographic boundaries:** Marine terminal PDA and the CCAA.

**Study time boundaries:** Construction and operations phases.

**Project works and activities considered in the study\*:**

Construction and operations activities. Construction vessels, tanker movements and associated tug escorts.

**Study methods:** Baseline conditions for portions of the marine fisheries were determined through an assessment of statistics on commercially important fish and invertebrate species within the assessment area for the four component fisheries. DFO was the

primary data source and included interviews with DFO personnel in Prince Rupert and searches of posted statistical data and related information from on-line resources. Field work involved a series of interviews with local commercial and subsistence fishermen, based in Kitimat in October 2005. The interviews were held on a voluntary basis and the details of those individuals who provided information remain confidential. Information for the commercial-recreational fishery was gathered through interviews

and questionnaires completed by select fishing ventures and individuals. Further documentation of the extent, location and significance of recreational, commercial-recreational and FSC fisheries is required.

VEC	Key Issues	KIR	Baseline Results	Measurable Parameter	Potential Project Effects**	Proposed Mitigation	Residual Effects	Cumulative Effects
Marine Fisheries: Commercial Recreational Commercial recreational Food / Social / Ceremonial	<p>Marine fisheries were chosen as a valued ecosystem component because of their economic and cultural importance to the region.</p> <p>Any changes in marine invertebrate and marine fish populations due to project activities have the potential to affect the livelihood of commercial fishers and community members dependent upon these resources for subsistence and economic gain.</p> <p>Project facilities and activities could also affect access to fishing areas during fishery openings, as well as damage or loss of fishing gear.</p> <p>Commercial fishing provides employment for many coastal communities along BC's north and central coasts (NCC).</p> <p>FSC fisheries are important to local Aboriginal communities as a traditional way of life. While some members of the Aboriginal community depend upon the fishery more than others, all the Aboriginal coastal communities traditionally harvest fish and shellfish from the area.</p> <p>The recreational and commercial recreational fisheries involve a cross-section of community members including Aboriginal groups.</p>	<p>Salmon</p> <p>Dungeness crab</p> <p>Geoduck</p> <p>Pacific herring</p> <p>Horse clam</p> <p>Mussels</p> <p>Octopus</p> <p>Pacific halibut</p> <p>Prawns</p> <p>Red sea urchin</p> <p>Groundfish</p> <p>Shrimp</p>	<p>Baseline information indicates the NCC region produces notable quantities of both fish and shellfish. The marine environment is considered to reflect decent water quality and relatively healthy habitat, strengthening the prospects of continued commercial, FSC, recreational and commercial-recreational fishing activities in this area.</p>	<p>Extent to which fisheries are disrupted by exclusion zones and vessel movements (fishing effort, number of fishing vessels, reduced quota, reduced landings).</p>	<p>During construction, commercial fishing will be excluded from the terminal area and a surrounding buffer zone; however, this exclusion area represents only a small proportion of the total area of Kitimat Arm. Fishing may also be hampered by the movement of construction and supply vessels between the marine terminal site and the Port of Kitimat.</p>	<p>Northern Gateway will work with fishers to minimize effects on key fishing sites and fishing seasons. A Fisheries Liaison Committee is proposed to address and discuss issues as they may arise associated with access to fishing grounds, and conflicts between fishing and ship movements. Adaptive management will be a cornerstone of the mitigation process where the effectiveness of mitigation strategies is implemented and improved where needed.</p>	<p>Overall, the potential for interaction with fishing vessels is limited, relative to the total area of Kitimat Arm.</p> <p>Conflicts between vessel movements and fishing are expected to be able to be managed through scheduling of vessel transits, as well as scheduling of fishing activities.</p>	Currently being assessed.
			<p>In terms of fishing effort and financial value, the commercial salmon fishery is considered the most important near the Kitimat Terminal.</p> <p>Aboriginal communities and their members rely on subsistence fishing for resources. However, the extent of FSC fishing within the terminal area is currently unknown.</p>	<p>Loss or damage to fishing gear.</p> <p>Alteration of commercial species distribution and abundance.</p>	<p>Because of the restricted and often unpredictable timing of the salmon fishery, the potential for negative effects because of routine terminal activities is considered greater than for other fisheries.</p> <p>Transits by construction vessels or by tankers and their escort tugs could result in loss or damage to fishing gear.</p>	<p>Northern Gateway will work with fishers to minimize potential for loss or damage to fishing gear. A Fisheries Liaison Committee is proposed to address and discuss issues as they may arise associated with access to fishing grounds, and conflicts between fishing and ship movements.</p>	<p>Conflicts between vessel movements and fishing are expected to be able to be managed through scheduling of vessel transits, as well as scheduling of fishing activities.</p>	Currently being assessed.

\*Refer to Figure 3.3 in section 3, Project description, for the full list of physical works and activities. \*\*The effects of spills and malfunctions will be included in the update for the supplemental filing.