

The Environmental Impact Statement (EIS) provides information about the Roberts Bank Terminal 2 Project, identifies potential effects and benefits of the Project, and describes mitigation measures to reduce potential Project effects. The EIS has been prepared according to the “Guidelines for the Preparation of an Environmental Impact Statement for the Roberts Bank Terminal 2 Project”, issued by the Canadian Environmental Assessment Agency in January 2014.

MARINE MAMMALS

Marine mammals are top predators in the Strait of Georgia marine ecosystem, the focus of a substantial wildlife viewing and ecotourism industry, and culturally valued by the public and Aboriginal groups. An assessment was undertaken to determine the potential effects of the Roberts Bank Terminal 2 Project on marine mammals.

The results of the marine mammal assessment were considered in the assessments of marine commercial use, human health, and current use of land and resources for traditional purposes.

SCOPE OF ASSESSMENT

The assessment of marine mammals focused on three sub-components:

- Toothed whales, represented by southern resident killer whales;
- Baleen whales, represented by North Pacific humpback whales; and
- Seals and sea lions, represented by Steller sea lions.

In order to be conservative, the species with the highest conservation designation was chosen as the representative species for each sub-component.

The assessment of potential effects of the Project on marine mammals considered the acoustic environment, availability of prey, and water and sediment quality, as well as the potential for vessel strikes. Studies to address known data gaps regarding the southern resident killer whale were informed by discussions with the Southern Resident Killer Whale Technical Advisory Group and regulatory agencies. In response to technical advisory group input, Port Metro Vancouver initiated field, desktop and modelling studies.

The local assessment area extended north and south in the Strait of Georgia from the Project area to the extent of the zone where marine mammals were predicted to hear Project-related underwater noise.

In order to provide a full regulatory context, the regional and cumulative effects assessment areas for southern resident killer whales included all Canadian critical habitat, which extends from the southern Strait of Georgia to the western end of the Strait of Juan de Fuca, plus the adjacent United States critical habitat, excluding Puget Sound. For humpback whales and Steller sea lions, the regional and cumulative effects assessment areas included the southern Strait of Georgia, Haro Strait and Rosario Strait.

EXISTING CONDITIONS

Existing conditions were determined for each of the three representative species.

Southern resident killer whales are listed as Endangered under the *Species at Risk Act* and their critical habitat is protected. They are considered to be at risk due to their small population size (78 individuals as of January 2015), low reproductive rate and potential anthropogenic threats. Southern resident killer whale distribution is closely associated with the presence of salmon, primarily chinook. Southern resident killer whales have been observed in the waters off the mouth of the Fraser River with greater frequency in September to October, although highest activity is observed in Haro Strait.

North Pacific humpback whales are currently listed as Threatened under the *Species at Risk Act*, but are expected to be re-listed as a species of Special Concern because of strong recovery of the population. Humpback whales occur occasionally in the local assessment area.

Steller sea lions are classified as a species of Special Concern under the *Species at Risk Act*, primarily due to concern regarding declines in the population in Alaska, the uncertainty regarding this decline, sensitivity to human disturbance and environmental contaminants. Seals and sea lions are present at Roberts Bank year-round and use both marine and terrestrial sites.

POTENTIAL EFFECTS

Interactions between Project components and activities and marine mammals were considered and the following potential adverse effects were identified:

- Changes in acoustic environment as a result of underwater noise from dredging, pile-driving, vibro-densification, and tug and vessel movements during construction, and container ship and tug movements during operation, resulting in potential acoustic injury, behavioural disturbance, or acoustic masking;
- Changes to the availability of prey from changes to fish habitat; and
- Vessel strikes.

Changes in water or sediment quality are not anticipated to have an adverse effect on marine mammals.

MITIGATION MEASURES

Measures to avoid or reduce potential effects include:

- Implementation of construction and operation environmental management plans to reduce effects of underwater noise;
- Offsetting of potential effects to marine fish to address potential effects to prey availability; and
- Continuation of Port Metro Vancouver's Environmental Training Plan for vessel operators to reduce the risk of vessel strikes.

KEY FINDINGS

Project-related adverse residual effects to marine mammals are expected to be not significant, based on the following:

- Future underwater noise levels with the Project are comparable to levels currently measured at Roberts Bank and mitigation would be implemented to reduce construction-related effects; population modelling predicted no statistical difference in the effects of underwater noise on southern resident killer whale life functions and subsequent population-level effects, between existing conditions and future conditions with the Project, and future conditions with the Project in combination with future certain and foreseeable projects;
- The availability or productivity of Pacific salmon prey (i.e., chinook salmon) is not anticipated to decrease from Project-related reductions in habitat availability; and
- The likelihood of a Project-related container ship, tug or support vessel strike resulting in marine mammal injury or mortality is very low.

Potential effects can be avoided or reduced during construction through the implementation of mitigation measures outlined in environmental management plans. Potential effects from increases in underwater noise during operation are expected to be infrequent compared to existing conditions, and of short-term duration, reversible and low-to-moderate magnitude.

In addition, the Project is not anticipated to have an adverse effect on southern resident killer whale critical habitat features when needed for southern resident killer whale life functions. The Project would not limit the survival or population recovery of southern resident killer whales.

Cumulative effects to baleen whales and seals and sea lions are expected to be not significant. However, due to their Endangered status and lack of recovery of the southern resident killer whale population, Port Metro Vancouver has assumed past activities and projects, including those described in the recovery strategy issued by Fisheries and Oceans Canada, have had a significant adverse effect on southern resident killer whales. Therefore, the Project, in combination with past projects and activities that have been carried out, and certain and reasonably foreseeable projects that will be carried out, would result in a continued significant cumulative effect to southern resident killer whales.

About the Roberts Bank Terminal 2 Project

The Roberts Bank Terminal 2 Project is a proposed new three-berth container terminal at Roberts Bank in Delta, B.C., on Canada's west coast. The Project would provide 2.4 million twenty-foot equivalent units (TEUs) of container capacity. Port Metro Vancouver proposes to build the Project to meet increasing demand for containerized trade on the west coast of Canada.

The Project is undergoing a federal environmental assessment by an independent review panel, under the *Canadian Environmental Assessment Act, 2012*. The Project is also undergoing an assessment under the *British Columbia Environmental Assessment Act*, and requires other permits and authorizations before it can proceed.

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