

Summary of Key Findings

On May 30, 2016, the federal Minister of Environment and Climate Change Canada appointed a Review Panel to carry out an environmental assessment of the Roberts Bank Terminal 2 Project proposed by the Vancouver Fraser Port Authority. The following provides a summary of the Panel's key findings.

The Project would require the conversion of 177 ha of intertidal and subtidal habitat on Roberts Bank to construct a new three-berth container terminal, expand an existing causeway and enlarge an existing tug basin. The Project would be situated immediately adjacent to Tsawwassen First Nation Lands, existing port infrastructure and close to the community of Tsawwassen and the City of Delta, British Columbia. The Project is located on Roberts Bank in the Fraser River estuary, an ecologically productive and sensitive area of coastal British Columbia. Roberts Bank is located on the Pacific Flyway for migratory birds and is adjacent to a provincial wildlife management area and an international Ramsar site. Some of the largest salmon runs in the world utilize and migrate through Roberts Bank as juveniles and adults. Roberts Bank also encompasses critical habitat for the Southern Resident Killer Whale (SRKW) listed as endangered under the *Species at Risk Act*.

The Panel is of the view that construction and operation of the proposed Project do not pose major technical challenges. The purpose of the Project is consistent with Canada's role as a trading nation, and the Project would enable an increase in container terminal capacity on Canada's west coast. The Project would also support competitiveness for Canadian markets linked to a marine shipping supply chain facing important changes, such as: mergers of ocean shipping lines; ocean carriers' and terminal operators' economic sustainability; terminal modernization and an increase in container ship size. The City of Delta, Metro Vancouver, British Columbia and Canada would benefit from the employment, business opportunities and economic development resulting from the Project. Indigenous groups living in proximity to the Project, in Metro Vancouver and on Vancouver Island and the Gulf Islands would stand to benefit from training, employment, and contracting opportunities.

The Panel concludes that the Project would result in numerous adverse residual and cumulative effects. The proposed offsetting plan for aquatic species, totaling 29 hectares, would be insufficient to compensate for the reduction in productivity associated with a Project-induced habitat loss of 177 hectares of Roberts Bank. There would be significant adverse and cumulative effects on wetlands and wetland functions at Roberts Bank. One of the ecosystem components that drives the high productivity of Roberts Bank is biofilm, which is consumed by western sandpipers and other shorebirds during their migration stopovers. The Panel concludes that the Project would not have an adverse effect on biofilm productivity and diatom composition. However, the Panel cannot conclude with certainty about Project effects on polyunsaturated fatty acid production in biofilm, a potentially critical nutritional component for western sandpiper. Due to the recent and still-emerging scientific understanding of biofilm, the Panel is unable to conclude with reasonable confidence that the Project would or would not have a residual adverse effect on western sandpiper. Barn owl, a species listed as threatened under the *Species at Risk Act*, would be subject to significant cumulative effects.

There would be significant adverse and cumulative effects on Dungeness crab as well as ocean-type juvenile Chinook salmon originating from the Lower Fraser and South Thompson Rivers. These juvenile Chinook reside temporarily in the vicinity of the Project and would be subject to migration disruption by the terminal footprint and Project-related effects on the underwater acoustic and light environments. The Project would cause significant adverse and cumulative effects on SRKW through a small loss of legally-defined critical habitat, reduced adult Chinook salmon prey availability and a minor increase in underwater noise. In the absence of mandatory mitigation measures to reduce underwater noise from marine shipping associated with the Project, there would be further degradation of SRKW critical habitat. Although unlikely, a lethal vessel strike on a single individual SRKW could have significant adverse population consequences.

Several Indigenous groups have traditional territories that overlap the Project area and the marine shipping area. The Project and the marine shipping associated with the Project have the potential to change various aspects of Indigenous current use and cultural heritage resources. The Panel concludes that the Project would likely result in significant adverse and cumulative effects on the current use of lands and resources for traditional purposes by Tsawwassen First Nation and Musqueam Indian Band in the Project area. The Panel also concludes that marine shipping associated with the Project would likely result in a significant cumulative effect on the current use of lands and resources for traditional purposes by Pacheedaht First Nation and Ditidaht First Nation.

In addition, the Project would cause significant adverse effects on cultural heritage for Tsawwassen First Nation and Tsleil-Waututh Nation in the Project area. While the Panel understands there would be relatively few ship movements associated with the Project, each ship travelling through the shipping lanes causes an incremental effect on the ability of Indigenous groups to access sites where they conduct cultural activities. The Panel concludes that there is an existing significant cumulative effect on cultural heritage and that any increase in ship movements would further contribute to this effect.

The Panel's assessment concludes that there would be effects on the quality of life of local populations, including health and quality of experience during commercial and recreational activities. The Project would result in a residual adverse effect on daytime and nighttime visual resources and on outdoor recreation as well as a significant cumulative effect. Residual adverse effects of the proposed expanded Navigational Closure Area during both construction and operations would combine with the adverse effects of the existing Navigation Closure Area and cause a significant cumulative effect on the Area I commercial crab fishery.

During the operational phase, the Project would result in a significant adverse effect and a cumulative effect on human health based on predicted exposures to 1-hour average NO₂ and other respiratory irritants. The Project would result in a significant adverse cumulative health effect due to noise. Elements of stress and annoyance related to light, noise and dust are already present in the Local Assessment Area and the Project has the potential to exacerbate these conditions. The Panel further concludes that the Project would likely cause a significant adverse

effect and a significant cumulative effect on agricultural land use due to the loss of a small area of land contained within the Agricultural Land Reserve.

Several types of accidents and malfunctions that could result from the Project were examined, both for land- and marine-based activities. The Panel concludes that additional measures would be required to adequately address effects from accidents and malfunctions that may occur in connection with land-based events. If a worst-case oil spill were to occur in the marine shipping area, it could result in potentially significant adverse residual effects for vulnerable species such as SRKW and marine birds, marine commercial and recreational activities, current use, cultural heritage and health of Indigenous groups.

A listing of the Panel's Conclusions and Recommendations is provided in Appendix H and further details are described in the main body of the report.

The Panel members are grateful for the support we received from the Secretariat during the four years of the Panel's work. We appreciate the professional and respectful participation offered by the Proponent and its team. We would like to acknowledge the involvement of the local citizens of Delta, the collaboration of all levels of government, the insights offered by non-governmental organizations and the constructive interactions and information provided by Indigenous groups.