



Tsartlip First Nation

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June 24, 2022

Impact Assessment Agency of Canada
160 Elgin Street, 22 Floor
Ottawa, ON K1A 0H3

Attention: Impact Assessment Agency of Canada

**Re: GCT Deltaport Expansion – Berth Four
Reference Number: 81010**

I write on behalf of the Tsartlip First Nation (“Tsartlip”) regarding the Deltaport Expansion – Berth Four Project (“the Project”). I write to you to provide our comments and feedback related to the Work Plan Summaries dated March 2022, in conjunction with the Updated Local and Regional Assessment Areas dated November 15, 2021 (“Assessment Areas”) and the Draft Joint Guidelines dated November 8, 2021 (“the Joint Guidelines”).

2.0 Physical Environment Work Plans

2.1 Air Quality

Section 9.4.3 of the Joint Guidelines states that the Project’s Impact Statement must characterize the ambient air quality in the project, local and regional assessment areas. Workplan 2.1 states that an emission inventory will be developed for the Project and surrounding industries for use in dispersion modelling, using data collected from existing and proposed sources of emissions in the Local Assessment Area (“LAA”).

The LAA established in Table 1 of the Assessment Areas for air quality is noted as “within 10 km of both the Project footprint and the shipping route...”, while the Regional Assessment Area (“RAA”) is “within 30 km of the Project footprint and the shipping route...”

The shipping route for the Project travels directly through Tsartlip's traditional lands and waters, and while the LAA captures some of those territories, it narrowly excludes significant parts of Tsartlip traditional use areas and Tsartlip reserves that are within the RAA. Further, container vessels have increasingly been anchoring in the Gulf Islands as they wait for clearance to unload, and this has further impacted the air quality in our territory.

Given the transmissible nature of air pollution, Tsartlip strongly believes that the data that will be used to develop emission dispersion modelling for the Project should be drawn from the entire RAA to develop a better understanding of the impacts on air quality – and therefore human health – that are likely to occur as a result of the Project.

2.3 Atmospheric Noise

Similarly, Workplan 2.3 states an intent to monitor and understand the existing ambient noise levels throughout the LAA, and predict future noise levels with and without the Project. The LAA set out in Figure 2 of the Assessment Areas document is noted as within only 4 km of the shipping route used by the Project, while the RAA is within only 10 km of the Project shipping route.

Once again, these boundaries will exclude Tsartlip territories, traditional use sites and reserves that will be directly impacted by any increase in noise associated with Project-related marine shipping.

Because of Tsartlip members' deep ties to our traditional lands and waters through which Project-related shipping travels, and their participation in land- and water-based traditional activities, Tsartlip members and other WSÁNEĆ peoples are some of those most affected by increases in atmospheric noise and other disturbances as a result of the Project and other marine transportation activities.

Already, marine shipping-related noise is a near-constant reality during daytime operations, interfering with Tsartlip members' use and enjoyment of their traditional territories and participation in traditional activities, ultimately culminating in physical and mental health impacts to Tsartlip members. Tsartlip members' use and enjoyment of the waters in and around the Saanich Inlet, the Gulf Islands, and Haro Strait are already impacted by the auditory and visual effects of increasing vessel traffic. Active Pass, Tsartlip's traditional marine highway between Saanich, its village sites on Mayne Island, and the Lower Mainland, is used intensively by large ferries, container ships, tankers, and recreational boaters. For these reasons, it is imperative that assessments of pre-existing ambient noise include the input and experiences of

Indigenous peoples through whose traditional territories Project-related shipping will travel, including Tsartlip First Nation members.

Moreover, Tsartlip is concerned about the direct impacts of atmospheric and underwater noise on fish, birds, and marine mammals. W̱SÁNEĆ culture and laws place a strong emphasis on the need to exercise care toward our “relatives of the deep.” One of the most important ways we demonstrate this care and respect toward marine creatures in their homes was, traditionally, through respectful quiet as we passed through the Gulf Islands between Saanich and the Lower Mainland. Tsartlip is concerned that the levels of atmospheric and underwater noise have reached a threshold where they are disrespectful and harmful to marine life, and this is contrary to our laws and responsibilities.

Any projected increase in atmospheric noise throughout Tsartlip’s traditional land and marine territories as a result of the Project and related marine shipping needs to be thoroughly studied and understood. Therefore, Tsartlip urges GCT to extend the assessment boundary for atmospheric noise impacts to the 30 km RAA proposed in Figure 1 of the Assessment Areas for the assessment of air quality, and to engage in discussions with Tsartlip members regarding the impact of marine shipping-related ambient noise on their wellbeing and cultural livelihood.

2.4 Coastal Geomorphology

Workplan 2.4 states that the studies outlined are designed to answer three questions:

- How will DP4 change the oceanographic climate (waves, currents) within the LAA, and particularly its impact on the inter-causeway geomorphology?
- What impacts will these changes in oceanographic conditions have on sediment transport (erosion/scour, deposition, and suspended sediment concentrations) within the LAA?
- What is the risk of creating dendritic channels and what mitigation is required to prevent the creation of dendritic channels?

Modelling of existing conditions will be used to understand the potential outcomes that could occur as a result of the Project. Tsartlip would like to confirm that the consequences of creating dendritic channels will be considered as part of the modelling of potential outcomes, including any potential impacts of dendritic channels throughout the entire RAA set out in Figure 5 of the Assessment Areas rather than merely within the LAA.

Section 3.4 (p.12) states: "The model will also be used to simulate present day sea levels and sea level rise and climate changes expected for the year 2100." Sea level rise is identified here as an environmental parameter of interest; however, all other parameters are generalized under the

term "climate changes." Tsartlip would like GCT to confirm that model runs will account for expected climate change effects on regional winds, waves, storm surge and other environmental forcing.

Plans to characterize the coastal geomorphological effects of the project are discussed throughout the workplan. This includes simulation due to under present day and expected environmental conditions through 2100. However, there is no mention of extreme environmental events. Tsartlip would like GCT to confirm that geomorphological effects of the project under potential extreme conditions is also studied.

Tsartlip is interested in virtual participation in the field work related to the installation and recovery of the current, wave and water property moorings.

2.5 Marine Sediment and Water Quality

Workplan 2.5 states that marine water and sediment quality will be assessed to characterize potential impacts of the Project on aquatic life. However, the Workplan does not establish within which assessment area(s) the marine water and sediment quality will be assessed, nor the locations where fixed sondes will be placed and vessel-based sampling will occur.

The shipping area lies within Tsartlip's territory and Tsartlip is concerned that the waters adjacent to its Gulf Islands reserves are already impacted by vessel traffic related sediment transport and impacts on water quality. Given the fluid nature of marine water in particular, Tsartlip hopes that marine water quality will be assessed for the entire RAA set out in the Figure 4 of the Assessment Areas, including fixed sondes throughout the RAA and vessel-based sampling from areas within both the LAA and RAA.

3.0 Marine Mammals Work Plans

3.1 Marine Mammal Vessel Strike

Workplan 3.1 states that it will study the relative risk of vessel strike that marine mammal species face within the LAA, and the anticipated changes in vessel strike risk due to Project activities within the LAA.

The LAA set out in Figure 11 of the Assessment Areas includes within 6.5 km of the Project shipping route. However, it is obvious that marine mammals – especially the Southern Resident Killer Whales (“SRKWs”) that are most at risk – along with transient Bigg's orcas, other cetaceans and pinnipeds may not stay within only the LAA. Additionally, the LAA does not

include waters around the Gulf Islands from which marine mammals may travel into the LAA as part of their migration and foraging activities; the LAA should incorporate these areas to gain a better understanding of marine mammal movements overall.

The RAA set out in Figure 12 of the Assessment Areas encompassing the entire Salish Sea and SRKW critical habitat is a much more appropriate assessment area considering the risks faced by the SRKWs and the many other aquatic mammals that frequent the waters surrounding the Project shipping route.

Additionally, considering the SRKW's dire conservation status, the assessment should consider the risk of vessel strike in the portions of SRKW critical habitat that are beyond Buoy J along the west coast of Vancouver Island and Washington State, collaborating with the US National Oceanic and Atmospheric Administration and Marine Mammal Commission and organizations like the Center for Whale Research to share data.

This assessment should incorporate Indigenous knowledge from Nations along the entire Project shipping route, including the work of Tsartlip's Stewardship team, that have a deep understanding developed over millennia of the movements of SRKWs and other marine mammals within and beyond the RAA and SRKW critical habitat.

3.2 Marine Mammal Ecology

Workplan 3.2 sets out four questions that will be answered by the six studies part of the plan:

- What are the seasonal changes (summer vs. winter) in marine mammal distribution and occurrence within the study area?
- What are the behavioural responses of different marine mammal species to large vessel traffic within the study areas?
- What are the predator-prey interactions of Southern Resident Killer Whales (SRKW)?
- What are the positive current initiatives in BC and Washington state that contribute to reducing the mortality of SRKW?

The Workplan should also consider how marine mammal abundance has changed over time, and interrelations between that abundance, large vessel traffic, coastal development, and trends in the abundance and availability of food sources for other mammal species.

Any avoidance behaviours by marine mammals in response to vessel traffic should be considered, including any correlations with trends in the frequency and intensity of marine

shipping and whether any such avoidance behaviours may be contributing to difficulty foraging for marine mammals' preferred food sources on a species-by-species basis.

Workplan 3.2 does not specify the assessment area(s) within which the studies will be conducted. As noted above, given the transience of many marine mammals, the appropriate assessment area is the RAA set out in Figure 12 of the Assessment Areas document.

Once again, considering the SRKW's endangerment, the assessment should consider the risk of vessel strike in the portions of SRKW critical habitat that are beyond Buoy J along the west coast, collaborating with the United States' agencies and non-profit organizations to share data and develop the most comprehensive understanding of SRKW ecology and movement possible.

This assessment must incorporate Indigenous knowledge from Nations along the entire Project shipping route, including Tsartlip, that have a deep understanding developed over millennia of the movements of SRKWs and other marine mammals within and beyond the RAA and SRKW critical habitat.

4.0 Fish and Fish Habitat Work Plans

4.3 Rocky Intertidal

As set out in Workplan 2.5 – Marine Water and Sediment Quality above, Tsartlip is concerned that the Project could have impacts on marine water quality throughout the entire RAA depicted in Figure 4 of the Assessment Areas, with the potential to impact marine invertebrate species that are important traditional food sources for Tsartlip members.

Therefore, it is Tsartlip's opinion that sampling of marine bivalves conducted as part of Workplan 4.3 should also incorporate sampling of marine bivalves along the coast of the Gulf Islands and Vancouver Island within Tsartlip traditional territory, for the purposes of conducting a Human Health Risk Assessment (see Workplan 6.2, below).

4.5 Dungeness Crab Productivity

Similarly, any decrease in marine quality in the Salish Sea has the potential to affect the tissue chemistry of crabs which are another important traditional food source for Tsartlip members. Therefore, Workplan 4.5 should include sampling of crab tissues from the entire RAA for use in the Human Health Risk Assessment (see Workplan 6.2, below).

4.6 Marine Fish Habitat Use

Marine harvesting, especially fishing, is central to Tsartlip identity and way of life. Salmon in particular carry spiritual and cultural significance to Tsartlip members, who hold Treaty rights to fish as formerly throughout Tsartlip's marine territory. The entire Project is located within Tsartlip marine waters, including important fishing stations immediately surrounding and north of the Project.

Workplan 4.6 will study the impact on fish habitat use and productivity from the potential DP4 footprint. Given the complex ecological interrelations between fish species, and the migratory behaviours of many fish species like salmon, a comprehensive and fulsome assessment of the potential effects of the Project on fish and fish habitat is of great importance to Tsartlip.

Workplan 4.6 does not specifically identify the area(s) within which habitat use and fish productivity will be studied, stating that the effects of the DP4 'footprint' will be considered. Tsartlip wishes to confirm that effects within the entire RAA set out in Figure 9 of the Assessment Areas will be considered, given the migratory nature of salmon and other fish species and the complex interrelations of marine ecosystems. The assessment must incorporate Indigenous knowledge of fish ecosystems and the potential effects of the Project.

6.0 Human Communities Work Plans

6.2 Human Health Risk Assessment

1. Emissions HHRA Technical Study: As noted above under Workplan 2.1 – Air Quality, given the transmissible nature of air pollutants, Tsartlip strongly feels that the RAA rather than the LAA should be used in assessing human health risks associated with current and projected future air quality. Therefore, the HHRA should similarly consider the potential risks of adverse health effects in the entire RAA, which includes Tsartlip traditional territories, reserves, and traditional use sites.

3. Marine Shellfish Tissue Assessment and HHRA Technical Study: Similarly, the changes in water quality and sedimentation that could occur as a result of the Project have the potential for impacts throughout the entire Salish Sea, rather than just within the LAA.

Marine shellfish and crab species along Vancouver Island and the Gulf Islands, within Tsartlip traditional territories, already have high levels of contamination interfering with Tsartlip members' ability to pursue traditional harvesting activities and enjoy traditional foods, resulting in increasing food insecurity and health inequity. Tsartlip members already struggle to sustain their physical and community social health as a direct result of diminishing access to traditional resources and activities, including the harvesting of traditional marine foods.

It is therefore imperative to Tsartlip that a precautionary approach is taken to any activities or development that could further impair Tsartlip members' health, and cultural and community well-being. Tsartlip urges GCT to expand the LAA to consider potential impacts on contaminant concentrations in crab and shellfish tissues and collocated marine sediments along the Gulf Islands and Vancouver Island, and any resulting potential human health risks.

6.3 Archaeological and Heritage Resources

As Tsartlip noted in our letters dated February 18, 2022 and April 22, 2022, Tsartlip would like to ensure that impacts on the entire RAA set out in Figure 27 of the Assessment Areas are considered. The LAA set out in Figure 27 will not adequately capture potential impacts on Tsartlip's archaeological and heritage resources, excluding islands along the marine shipping route on both sides of Haro Strait and Boundary Pass that are within Tsartlip's traditional territory and contain Tsartlip heritage sites that may be partially or completely exposed to impacts from vessel wake or oiling from accidents.

Tsartlip reiterates its position that either the draft LAA must be expanded to consider these shorelines, or that the entire RAA set out in Figure 27 should be considered within the DP4 Field Program Workplans. The current proposed LAA is not acceptable to Tsartlip First Nation. GCT should engage in discussions with Tsartlip to adequately understand the potential impacts of the Project and related marine-shipping on Tsartlip's cultural resources.

Conclusion

Many components of the Workplans, which will ultimately form the basis of the Project's impact assessment, consider only the immediate Local Assessment Areas in their current iterations. The LAAs often narrowly exclude areas that may very well be impacted by the Project, given the fluid nature of air and water, and the transient nature of many fish and marine mammal species. GCT must take a precautionary approach to assessment and ensure that effects, including cumulative effects, beyond the immediate Project footprint are understood and considered.

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Don Tom, Chief of Tsartlip First Nation