

Appendix C.2 – Musqueam Indian Band

I - Background Information

Musqueam Indian Band (Musqueam) is a traditional hə́ŋqəmiŋəhə́ŋqəmiŋəmnal hwho have descended from the cultural group known as the Coast Salish. Musqueam identified their asserted traditional territory in their 1976 Musqueam Declaration and Statement of Intent, submitted as part of the British Columbia (BC) Treaty process. Musqueam is currently in Stage 4 of the BC Treaty process (i.e., Agreement-in-Principle). Musqueam’s asserted traditional territory encompasses what is now Vancouver and surrounding areas including parts of the municipalities of New Westminster, Burnaby, Port Coquitlam, Port Moody, Coquitlam and North Vancouver.

Musqueam has an established Aboriginal right to fish for food and social and ceremonial purposes as set out in the Supreme Court of Canada’s *Sparrow* decision from 1990.

Musqueam’s registered population as of June 2016 is 1389, of whom 675 live on Musqueam reserve lands. Musqueam has three reserves: *Musqueam 2*, *Musqueam 4*, and *Sea Island 3*.

II - Preliminary Strength of Claim Assessment

- Approximately 44 kilometres (km) of the marine shipping route would pass within the northwestern part of Musqueam’s traditional territory. The Crown’s preliminary assessment of Musqueam’s claims for Aboriginal rights to harvest marine resources within the marine shipping corridor of the Project, abutting the coastline of the Burrard Inlet in the north to within the Strait of Georgia proximal to the southern arm of the Fraser River in the south, is assessed as a range from weak to strong *prima facie* Aboriginal rights claims. Areas of strong *prima facie* claims include areas along the western section of the Burrard Inlet and along the portion of the Strait of Georgia overlapping Musqueam’s asserted territory, areas that many ethnographers identify as falling within the traditional territory of the Musqueam, where there is information supporting their historic use of the area for resource gathering, and habitation sites. Areas of weak *prima facie* claims are at the eastern end of the Burrard Inlet where it appears to fall outside of the area considered as Musqueam traditional territory and where there is no information indicating Musqueam historic use.¹
- The Crown’s preliminary assessment of Musqueam’s *prima facie* claim to Aboriginal title within the marine shipping corridor of the Project, abutting the coastline of the Burrard Inlet in the north to within the Strait of Georgia proximal to the southern arm of the Fraser River in the south, is assessed as a range from weak to strong. The area of a strong *prima facie* claim is particularly around the north arm of the Fraser River and diminishing as the route travels south through the Strait of Georgia. By 1846, Musqueam territory had contracted due to population loss as a result of epidemics and raids. Musqueam population became concentrated around the north arm of the Fraser, where there is information supporting their historic use of the area for resource gathering, and habitation sites. Within Burrard Inlet, the claim diminishes with increasing distance from the western end, as information indicates that these areas may fall outside of what was considered Musqueam traditional territory at 1846.²

¹ Ministry of Attorney General, *Musqueam First Nation: Review of Anthropological and Historical Sources Relating to the Use of Land* (revised June 2010).

² *Ibid*

- The Project terminus and approximately 15 km of the proposed right of way (RoW) for the Project pipeline overlaps with Musqueam's asserted traditional territory. The Crown's assessment of Musqueam's claims for Aboriginal rights over the section of land that spans the terminus of the pipeline at the Burnaby holding facility to the south bank of the Fraser River is assessed as a range from weak-to-moderate to moderate-to-strong *prima facie* Aboriginal rights claims. Musqueam is assessed as having a moderate-to-strong *prima facie* Aboriginal rights claim in proximity to the terminus, and the claim weakens to weak-to-moderate along the portion of the pipeline that is parallel to the Fraser River.³
- The Crown's preliminary assessment is that Musqueam has a *prima facie* claim for Aboriginal title ranging from weak-to-moderate to weak over the section of the Project pipeline that spans the area from the terminus of the pipeline at the Burnaby holding facility and along the eastern span to Fort Langley, with the weak-to-moderate claims in proximity to the terminus where there is information indicating a seasonal village used by Musqueam at Port Moody, but there is information indicating that in 1846 this areas was considered by ethnographers to be controlled by a neighbouring group.⁴

III - Involvement in the NEB and Crown Consultation Process

Given the nature and location of the Project, and the potential impacts of the Project on Musqueam's Aboriginal Interests, the Crown is of the view that the legal duty to consult Musqueam lies at the deeper end of the *Haida* consultation spectrum. Musqueam was placed on Schedule B of the section 11 order issued by the BC Environmental Assessment Office (EAO), which affords Musqueam opportunities to be consulted at a deeper level.

Musqueam participated in the National Energy Board (NEB) review process as an intervenor and filed written evidence, submitted a written final argument, provided an oral summary argument, corresponded with NEB, and responded to the Major Project Management Office (MPMO)'s Issues Tracking Table Information Request by further elaborating their concerns [\[A71228\]](#).

Musqueam submitted detailed correspondence, both with the NEB and with the Crown (including Ministers). The Crown has exchanged numerous pieces of correspondence with Musqueam in respect of the Crown's proposed approach to consultation on the Project, and the Crown consultation team met with Musqueam officials on July 16, 2014, March 3, 2016, July 18, 2016, and October 13, 2016. Musqueam provided 48 questions relating to the consultation process to the Crown both during the meeting held July 18, 2016, and via email on the same day. In each exchange with the Crown, including a meeting with the Minister of Natural Resources, Musqueam communicated opposition to the Project.

Musqueam signed a contribution agreement with the NEB for \$22,000 in participant funding plus travel for two to the hearing. The Major Projects Management Office (MPMO) offered Musqueam \$12,000 in participant funding for consultations following the close of the NEB hearing record. MPMO offered Musqueam an additional \$14,000 to support their participation in consultations following the release of the *NEB Recommendation Report*. Musqueam signed contribution agreements with the MPMO in response to both of these offers, for a total of \$26,000 in allocated funding.

On September 21, 2016 Musqueam was provided \$5,000 in capacity funding by the EAO to assist with the consultation process.

³ Ibid

⁴ Ibid

The Crown provided a first draft of the Consultation and Accommodation Report (the Report) on August 17, 2016. Musqueam sent the Crown a letter on August 31, 2016, which also included the 48 questions Musqueam had about the Crown consultation process, initially circulated at the July 18, 2016 meeting between Musqueam and the Crown. The Crown answered Musqueam's questions on September 23, 2016.

A second draft of this Report was provided to Aboriginal groups for review and comment on November 03, 2016, and Musqueam provided comments on November 14, 2016.

Musqueam provided a separate Aboriginal group submission to the Crown on November 18, 2016.

IV - Summary of Key Musqueam Issues and Concerns Raised

The Crown has gained its understanding of Musqueam's issues and concerns through Musqueam's involvement in the NEB process, including Musqueam's written evidence ([A4Q2F9](#)), written argument ([A4X3U3](#)) and oral traditional evidence ([A4D4G7](#)), as well as the responses provided to the MPMO through the Information Request addressed to them during a series of Crown-Musqueam meetings and exchange of correspondence. In addition, the Crown has considered information regarding the proponent's engagement with Musqueam, as described in the proponent's Aboriginal Engagement Report (July 2016).

This section offers a summary of the key issues raised by Musqueam, and does not present the views of the Crown as to whether it agrees or not with the issues. The Crown's assessment of the impact of the Project presented in the subsequent section incorporates a consideration of these issues and includes the Crown's views and conclusions. The Crown's understand of Musqueam's key Project-related issues and concerns are summarized below:

Increased Tanker Traffic

- Increased tanker traffic in and out of Burrard Inlet and the Strait of Georgia, which limits community members' access to fishing areas, and results in corresponding economic, sustenance, cultural, and "intellectual" impacts such as the impacts to intergenerational knowledge transfer and cultural experience;
- Increased tanker traffic increases safety hazards for Musqueam's fishing vessels and fishers, particularly smaller vessels that may not have access to radar or sonar equipment; and
- Potential cumulative effects to aquatic environments and resources including fish and seafood in Burrard Inlet and the Strait of Georgia from increased tanker ship traffic, including potential impacts related to increased air pollution, noise pollution, wake energy, habitat fragmentation, bilge water releases, and fuel spills;
- Potential for collisions with small vessels;
- Wake from ships causing damage to shoreline, particularly at low tide; and
- Impacts of a spill on marine habitat and wildlife.

Potential Impacts to Aboriginal Rights and Title

- Reduction in cultural expression and teaching opportunities for Musqueam youth arising from reduced access to fishing sites;
- Restricted access to harvesting sites impairs exercise of rights;
- Disrupting travel ways used by Musqueam members;
- Impaired ability to harvest marine resources in order to provide food for the community;

- Reduced viability of fishing-based economy;
- Concern that the Crown has not justified potential infringement of Musqueam's *Sparrow* rights relating to fish;
- Lack of fish to trade with neighbouring nations and protecting their ability to fish; and
- Impeding movement to a self-governing and self-sustaining economy.

Process

- Concern about the NEB process and the joint federal and provincial Crown consultation approach and whether consultation is at a level sufficient to fulfill the Crown's legal duty to consult;
- Ensure that overlapping interests of other Aboriginal groups into Musqueam territory are not treated as rights;
- Truncated timelines do not provide adequate time for review and comment on documentation;
- Enforce accountability on decision-makers; and
- Meaningfully hear and understand evidence from Aboriginal people and communities.

Potential Accidents and Malfunctions

- Potential for shoreline oiling in the event of a spill, particularly in undeveloped estuaries, sensitive habitats, sandbanks, marshlands, and mudflats. These areas provide habitats for migratory birds, wildfowl, juvenile salmon, crab, prawns, eucalyptus, and species at risk, among other species. Shoreline oiling could setback current efforts undertaken to rehabilitate habitat and species;
- Potential toxicological effects of a diluted bitumen spill to fish, invertebrates, mammals, and other aquatic species in the Fraser River estuary and adjacent marine environment;
- Limited knowledge and uncertainty associated with the chronic toxicological effects of heavy oil spills, including unknown effects of naphthenic acids contained in bitumen;
- Potential effects of chemicals used to clean-up spills, such as dispersants, that may have the ability to cause aquatic toxicity;
- Lack of focus and emphasis of the spill risk analysis for diluted bitumen spills in the Fraser River and Strait of Georgia on potential effects to aquatic species, species at risk, and resources that have cultural and economic importance to Musqueam;
- Uncertainty of non-toxic effects of stranded oil, substrate coating, and/or the presence of "tarballs" on shoreline ecosystems and fish-spawning habitats. This uncertainty includes oil spill recovery efforts that could result in disturbance of sensitive shoreline habitat and vegetation;
- Inhalation of vapours in the event of a spill and the exposure of these vapours to human populations and wildlife;
- The potential for pipeline failures within the Fraser River watershed, and the potential impacts on groundwater; and
- Potential for inefficiencies and slow response times in the event of a spill.

Musqueam has expressed the view that the Project as proposed would lead to further negative environmental, economic, cultural, social and spiritual impacts on Musqueam members and to a reduction in their ability to pursue long-term governance and preservation objectives.

The Crown understands that, from a legal and procedural standpoint, Musqueam is concerned that Ministers will not take Musqueam views about impacts on their established right to fish seriously when making a decision on the Project. In particular, as stated and discussed in detail in Musqueam's written

argument at the conclusion of the NEB review process, Musqueam's view is that the Project constitutes an infringement on its proven Aboriginal right to fish requiring the Crown to meet the justification test as set out in *Sparrow*, of which consultation is a part. Musqueam has requested a justification from the Crown for any infringements to their Aboriginal right to fish posed by the Project, or the provision of information demonstrating such justification should the Project be approved. The Crown understands Musqueam's view that a Project approval will necessitate the Crown to justify any infringements on Musqueam's *Sparrow* rights to fish. Musqueam also holds that approving the Project would be at odds with the Government's commitment to implement the United Nations Declaration on the Rights of Indigenous Peoples, which sets out an obligation on states to "consult and cooperate in good faith" with Indigenous peoples "in order to obtain their free, prior and informed consent prior to approval of any project affecting their lands or territories and other resources".

In a July 2016 meeting with the Crown, Musqueam identified the following Project-related issues and concerns:

- Potential impacts on Musqueam's *Sparrow* rights to fish and the requirement for justification of the possible infringement of these rights;
- Concerns that the Crown consultation process has not undergone changes following the recent Federal Court of Appeal (*Gitxaala Nation v. Canada, 2016*) decision in the case of the Northern Gateway Project;
- Unrealistic timelines associated with the Crown consultation process as well as timelines that conflict with Musqueam's fishing activities in the summer; and
- Likelihood and consequences of a potential spill on Musqueam's way of life.

At an October 13, 2016 meeting with the Crown consultation team, Musqueam emphasized the following Project-related issues and concerns:

- The role of the Crown in the consultation process; the Crown consultation team confirmed that no procedural aspects of the Crown's consultation duty have been delegated to the proponent;
- The importance of a justification analysis prior to a decision that would enable an infringement on the *Sparrow* right to fish; Musqueam reiterated infringements on fishing rights as a primary concern; and
- Cumulative impacts as a result of the Project and other industrial activity that impact Musqueam, particularly members' ability to fish, and a lack of Musqueam-specific studies completed to assess cumulative impacts.

Musqueam has articulated its disagreement with the Crown's assessment of Musqueam's preliminary strength of claim. Furthermore, Musqueam expressed disagreement with the Crown's assessment of Project impacts on Musqueam's Aboriginal Interests.

Section 4.2.6 and 5.2 of this Report provide an overview of how the Crown has considered accommodation and mitigation measures to address outstanding issues identified by Aboriginal groups. Accommodations proposed by Musqueam that the Crown has not responded to directly will be otherwise actively considered by decision-makers weighing the Project cost and benefits with the impacts on Aboriginal Interests.

Musqueam's Response to NEB Recommendation Report

Musqueam stated that, based on the *Gitxaala v Canada* Federal Court of Appeal decision, it is Musqueam's view that the *NEB Recommendation Report* is a guidance document only for the Crown in

reaching its decision on the Project. The Crown's consultation and justification process must independently address Musqueam's concerns, outside of the *NEB Recommendation Report*. It is Musqueam's view that the *NEB Recommendation Report* is not on its own sufficient, and does not address the concerns of Musqueam.

Musqueam does not accept the validity of the analysis of the probability and risk of a spill included in the *NEB Recommendation Report*. Musqueam has conveyed their view that the magnitude of the potential impact must be examined as well, and in Musqueam's case, the consequences of a significant spill are so severe that they would alter their way of life. Musqueam does not believe it is clear that this magnitude of impact is addressed.

Musqueam has also stated that the generality of the *NEB Recommendation Report* does not provide a justification for any detailed and Aboriginal group-specific issues and concerns. Musqueam, for instance, is entitled to a justification from the Crown for infringements to Musqueam's *Sparrow* rights to fish.

V - Potential Impacts of the Project on Musqueam's Aboriginal Interests

A discussion of the Crown's assessment approach and understanding of the potential impacts of the Project on Aboriginal Interests are provided in Sections 2.4.3 and Section 4.3 of this Report, respectively. The Crown recognizes that areas within the asserted traditional territory of each Aboriginal group may be particularly important and valuable for specific qualities associated with traditional cultural or spiritual practices. These areas may also be used for traditional harvesting activities (e.g., hunting, trapping, fishing and gathering), by individual members or families.

The discussion in this section focuses on potential impacts of the Project on Musqueam's Aboriginal Interests. These potential impacts are characterized by considering how the Project could affect several factors important to Musqueam's ability to practice Aboriginal Interests. Where information was available, the Crown considered the following:

- Biophysical effects to values linked to Aboriginal rights (e.g., fish) that were assessed by the NEB;
- Impacts on specific sites or areas identified as important to traditional use; and
- Impacts on social, cultural, spiritual, and experiential aspects of exercising Aboriginal Interests.

Additional factors considered in the assessment of impacts on Aboriginal Interests are described in Section 2.4.3 of this Report. The Crown's conclusion on the seriousness of Project impacts on Musqueam's Aboriginal Interests considers information available to the Crown from the NEB process, consultation with Musqueam, recommended NEB conditions, as well as relevant proposed conditions of any Environmental Assessment Certificate issued by the Province.

The Crown understands that Musqueam did not complete traditional land and resource use or traditional marine resource use studies for the Project. *Volume 5B* of the Project Application ([A3S1S0](#)) provides public information on Musqueam's traditional uses. Musqueam also submitted written evidence to the NEB in May 2015 titled "*Preliminary Report – Written Evidence*" ([A4Q2F9](#)) that contains traditional use information. The written evidence does not provide approximate distances or directions from the marine shipping lanes or pipeline corridor. Richard Sparrow and Leona Marie Sparrow provided oral traditional evidence to the NEB ([A4D4G7](#)). Morgan Guerin also provided evidence to the NEB (A75228). The Musqueam witnesses gave evidence that the impacts of the Project would be seen as significant by their community, including changes to Musqueam's ability to fish and to exercise their preferred way of fishing that are protected by the *Sparrow* case. Musqueam's evidence states that the

impacts of the Project threaten the Musqueam way of life that has existed since time immemorial, and that Musqueam is especially concerned with the impact of increased tanker traffic and the risk of a spill in a confined area. The Musqueam witnesses indicated that the impacts on their interests and rights posed by the Project are more than trivial in nature.

According to Musqueam's written evidence, Musqueam places the utmost importance and value on all resources in the terrestrial and aquatic environments. The Fraser River and Strait of Georgia are two important aquatic environments on which the Musqueam rely for many species of wildlife, finfish, shellfish, and plants. Musqueam rely on these resources for sustenance and to support their economy and culture. Musqueam also places primary importance on healthy ecosystems that support all life, including the species on which the Musqueam people rely. Musqueam view themselves as protectors of the Fraser River ([A4X3U3](#)).

Impacts on Hunting, Trapping and Plant Gathering

According to Musqueam's written evidence, community members traditionally relied on resources from terrestrial areas. Musqueam community members have expressed that they currently do not have access to upland areas in their traditional territory to hunt game such as deer and elk. *Volume 5B* in the Application identifies the following species hunted and trapped by Musqueam in upland areas: moose, white-tail deer, and mule deer, beaver, muskrat, rabbit, porcupine, black bear and mountain goat. Musqueam continues to hunt birds in the Fraser River estuary and adjacent marine areas. Musqueam identified the following traditional and contemporary valued aquatic species in their written evidence: harbor seal, stellar sea lion, mallard, blue-winged teal, northern pintail, white-wing scoter, surf scoter, American scoter, snow goose, Canada goose, brant, cattail, bulrush or tule, sedges, rushes, silverweed cinquefoil, and wapato. *Volume 5B* in the Application identifies the following species of vegetation harvested by Musqueam: huckleberries, salmonberries, blueberries, cranberries, strawberries, thimbleberries, currants, salal, wild onion, horsetail rush, devil's club and skunk cabbage. Community members used Western Red Cedar for wooden utensils and ceremonial objects, and also used pine, cottonwood, buckthorn, dogwood, willow, and vine maple.

Musqueam identified many concerns related to environmental effects of the Project on hunting, trapping, and plant gathering activities, including loss of berries, traditional medicines, and harvesting opportunities, impacts on a wide variety of wildlife species, and cumulative impacts from increased tanker ship traffic, including potential impacts related to habitat fragmentation and reduced ecological productivity of the shoreline. As described in the *NEB Recommendation Report*, Project-related activities are likely to result in low to moderate magnitude effects on soil and soil productivity, rare plants and lichens and vegetation communities of concern, old growth forests, wetlands, terrestrial wildlife and wildlife habitat (including species at risk), marine mammals, and marine birds. NEB conditions, if the Project is approved, would either directly or indirectly avoid or reduce potential environmental effects associated with hunting, trapping, and gathering activities (Section 4.3.1 of this Report) and the proponent would implement several mitigation measures to reduce potential effects to species important for Musqueam's hunting, trapping, and plant gathering activities. The proponent is committed to minimizing the Project footprint to the maximum extent feasible, and all sensitive resources identified on the Environmental Alignments Sheets and environmental tables within the immediate vicinity of the RoW will be clearly marked before the start of clearing. Mitigation measures to reduce effects on habitat, limit barriers to movement, avoid attraction of wildlife to the work site, minimize sensory disturbance and protect site-specific habitat features are outlined in the Project Environmental Protection Plan (EPP) and the Wildlife Management Plans (including a marine mammal protection program [NEB Condition 132]). The NEB imposed Condition 81 that requires the proponent to

develop a Westridge Marine Terminal (WMT)-specific EPP, including mitigation and monitoring plans, to be finalized in consultation with Fisheries and Oceans Canada (DFO) and potentially affected Aboriginal groups. The proponent is also required to conduct a post-construction monitoring program for marine mammals from the expansion of the WMT and post-construction monitoring reports. The proponent has committed to various mitigation measures to reduce effects of construction and operation of the WMT on marine birds and has committed to compile information regarding marine bird mortality and collision events and to include that information in post-construction monitoring reports. For the marine shipping component of the Project, the proponent will also develop plans to implement, monitor and comply with marine shipping-related commitments in cooperation with affected Aboriginal groups. The Crown notes the proponent's commitment to ongoing engagement with Aboriginal groups that are interested in providing traditional knowledge relating to the location and construction of the Project.

Musqueam raised concerns with the Project's potential impacts relating to access to hunting, trapping, and plant gathering activities including the oral traditional evidence provided by Richard Sparrow and Leona Sparrow which described how Musqueam no longer has access to wild meats such as deer and elk. Today, any reduced access to aquatic resources could inhibit Musqueam's hunting activities, because Musqueam currently has protocols with neighbouring Aboriginal groups to trade aquatic resources (e.g., salmon) in exchange for access to their traditional territory for hunting purposes. Project-related pipeline construction and routine maintenance is expected to cause short-term, temporary disruptions to Musqueam's access to hunting, trapping and plant gathering activities, largely confined to the Project footprint for the pipeline and associated facilities. The Crown understands that with pipeline construction and reclamation activities, disruptions to access may result in a loss of harvesting opportunities for Musqueam. For traditional activities directly affected by the construction and operation of the WMT, these activities are not likely to occur within the expanded water lease boundaries during the operational life of the Project. Project-related marine shipping is expected to disrupt Musqueam's marine vessels and harvesters, and this could disrupt activities or access to hunting, trapping, and plant gathering sites. NEB conditions, if the Project is approved, would either directly or indirectly avoid or reduce potential access-related impacts associated with hunting, trapping, and gathering sites (Section 4.3.1 of this Report) and the proponent would implement several mitigation measures to reduce potential effects on Musqueam's hunting, trapping, and plant gathering activities. These mitigations include management plans that include access management, scheduling and notification of Project activities, and environmental monitoring programs. The Access Management Plan is intended to reduce disturbances caused by access, construction equipment and vehicle traffic, during and following construction in order to minimize disturbance to access to Musqueam's traditional lands. The proponent has committed to minimizing the development of access routes, controlling public access along the construction right-of-way, selecting appropriate access routes that cause the least disturbance to high quality, sensitive wildlife habitat, managing traffic on these routes and determining appropriate construction reclamation. The proponent has also committed to work with applicable resource managers, traditional land and resource users to define locations where access control is necessary, and what type(s) of access control will be implemented. In the event that hunting, trapping, and plant gathering sites are identified during ongoing engagement with Musqueam prior to construction, the sites will be assessed, and appropriate mitigation measures will be implemented. As described in Section 4.3.3, the proponent will be required to communicate Project-related vessel timing and scheduling to Aboriginal groups through a public outreach program (NEB Condition 131). This communication would allow Musqueam community members to take measures to reduce potential disruptions from tankers and allow planning for hunting, trapping and plant gathering activities to take place that minimizes disturbance from Project-related tankers. Reduced harvests, while not expected to occur from temporary access restrictions, could impact Musqueam cultural activities and sharing of

marine food with the community. The proponent committed to working with Musqueam to develop strategies to most effectively communicate the construction schedule and work areas to community members.

Musqueam expressed concern with direct and indirect effects of the Project on social, cultural, spiritual and experiential aspects of its hunting, trapping, and plant gathering activities, including reduced access to cedar wood for the creation of ceremonial objects. Short-term, temporary disruptions to Musqueam's hunting, trapping, and plant gathering activities from Project-related construction and routine maintenance activities could temporarily alter the behaviour of community members' during construction. Reduced participation in traditional activities, while not expected to occur from temporary access disruptions within the footprint of the Project, could have spiritual and cultural impacts on community members. The Crown understands that Musqueam may experience noise disturbances and interruptions to traditional activities due to the WMT and Project-related marine shipping activities, and community members could be discouraged from travelling to hunting, trapping, and plant gathering sites that require these members to cross shipping lanes. NEB conditions, if the Project is approved, would either directly or indirectly avoid or reduce potential social, cultural, spiritual, and experiential effects associated with hunting, trapping, and plant gathering activities (Section 4.3.1 of this Report) and the proponent would implement several mitigation measures to reduce potential effects to Musqueam's hunting, trapping, and plant gathering activities. The proponent is committed to utilizing an Integrated Vegetation Management approach intended to reduce the use of herbicides and promote healthy ecosystems. Measures outlined in the proponent's Reclamation Management Plan are intended to stabilize and revegetate affected lands to achieve land productivity along the construction ROW and footprint, equivalent to the adjacent land use. The proponent has also committed to ongoing engagement with Aboriginal groups in providing traditional knowledge related to the location and construction of the Project and will communicate Project-related vessel timing and scheduling to Aboriginal groups through a public outreach program.

The Crown has considered available information from the NEB process, consultation with Musqueam, the proponent's proposed mitigation measures and the recommended NEB conditions, as well as relevant Provincial proposed conditions of any Environmental Assessment Certificate issued by the Province. In consideration of this information, the Crown expects impacts of Project construction and operation, and Project-related marine shipping activities on Musqueam's hunting, trapping and plant gathering activities would range from negligible to minor. The Crown expects minor impacts as a result of the pipeline, and these effects would primarily occur during construction. The Crown expects negligible impacts as a result of the WMT and Project-related vessels, and these effects would occur during construction and operations. In reaching this conclusion, the Crown has considered several factors that have been discussed above, which are summarized as follows:

- Project-related pipeline, facility, and WMT construction and operation, and marine shipping activities are likely to have low to moderate magnitude environmental effects on terrestrial, aquatic, and marine species harvested by Musqueam;
- Construction of WMT, the pipeline and associated facilities are likely to cause short-term temporary disruptions to Musqueam' community members accessing traditional hunting, trapping and plant gathering sites within the Project footprint; Project-related marine shipping activities are likely to cause temporary disruptions to activities or access to sites during the period of time Project-related tankers are in transit through Musqueam's traditional territory; and
- Concerns identified by Musqueam's regarding Project-related effects on social, cultural, spiritual, and experiential aspects of their hunting, trapping and plant gathering activities.

Impacts on Freshwater Fishing, and Marine Fishing and Harvesting

Musqueam self-identifies as a fishing community and describes fishing as integral to their economy, culture, and survival ([A4X3U3](#)). As described in their written evidence, Musqueam currently relies on resources within or near aquatic environments. Historically, Musqueam community members obtained aquatic resources from both fresh- and salt-water aquatic environments of the Burrard Inlet, Strait of Georgia, and Fraser River estuary. Presently, Musqueam fish in the Fraser River estuary and adjacent marine areas, and in the Strait of Georgia to Howe Sound. Fraser River populations of Pacific salmon are of primary importance to Musqueam as community members rely on salmon for sustenance and for economic and cultural purposes.

The Crown acknowledges that Musqueam has a proven Aboriginal right to fish as established by the Supreme Court of Canada Decision in *R v. Sparrow*.

Musqueam identified the following traditional and contemporary valued aquatic species in their written evidence related to fishing and marine harvesting: salmon (sockeye, pink, spring, coho, chum), steelhead, cutthroat trout, Dolly Carden char, Starry flounder, White sturgeon, eulachon, Pacific herring, octopus, urchin, sea cucumber, spotted ratfish, spiny dogfish, bivalve shellfish, shrimp and prawn, bay ghost shrimp, Dungeness crab, and kelp. Musqueam also identified indirect valued resources such as eelgrass beds, benthic invertebrates, and forage fish that serve as habitat and forage food for species.

Musqueam identified many concerns related to the environmental effects of the Project on fishing activities, in particular impacts on the aquatic environments and resources including fish and seafood in Burrard Inlet and the Strait of Georgia from increased tanker ship traffic, potential impacts related to increased air pollution, noise pollution, wake energy, habitat fragmentation, bilge water releases, and fuel spills. Additional concerns were raised regarding impacts from increased marine traffic, including effects on marine resources, and the wake from ships potentially causing damage to the shoreline. As described in the *NEB Recommendation Report*, Project-related activities could result in low to moderate magnitude effects on freshwater and marine fish and fish habitat, surface water and marine water quality. Moderate effects to fish and fish habitat in the terrestrial and aquatic environments would be localized to individual watercourse crossings, and effects to marine fish and fish habitat would be limited to a few or many individuals, where any potential serious harm would be compensated by offset measures. NEB conditions, if the Project is approved, would either directly or indirectly avoid or reduce potential environmental effects on fishing activities (Sections 4.3.2 and 4.3.3 of this Report). A number of recommended NEB conditions require the proponent to file reports that will monitor Project-related impacts to freshwater fish and fish habitat, marine fish and fish habitat, and riparian habitats (NEB Conditions 71, 75, 92, 151, and 154). The proponent would implement several mitigation measures to reduce potential effects to species important for Musqueam's fishing activities. The proponent has committed to time watercourse crossing construction activities to occur within the least risk biological windows in an attempt to avoid causing serious harm to fish, has committed to working with Aboriginal groups to identify the most appropriate means of offsetting serious harm to marine fish and fish habitat, and has proposed the implementation of channel and bank reclamation measures at each watercourse crossing to help maintain the productive capacity of water bodies that provide fish habitat. Further, the proponent has completed a preliminary offsetting plan for impacts on fish and fish habitat associated with construction and operation of the WMT. For Project-related marine shipping activities, the proponent will require all tankers to process and empty their bilges prior to arrival and lock the discharge valve of the bilge water while in Canadian waters.

Although the Crown understands that Musqueam's written evidence does not provide approximate distances or directions of fishing sites from the marine shipping lanes or pipeline corridor, Musqueam's oral traditional evidence asserts that Project tankers will go directly through Musqueam's fishing area ([A4D4G7](#)). In this evidence, Musqueam also describes the importance of Musqueam Creek, which runs through Musqueam Indian Reserve Number 2, as the last wild salmon-bearing stream in Vancouver.

Musqueam raised concerns with the Project's potential impacts relating to specific locations and access to fishing activities, including restricted access to harvesting sites, impaired ability to harvest marine resources in order to provide food for the community, and concern around impacts to areas identified as Musqueam's traditional fishing areas. Project-related pipeline construction and routine maintenance activities are expected to cause short-term, temporary disruptions to Musqueam's access to freshwater fishing activities. If construction and reclamation occur during the fishing season, there could be a potential reduction in access to waterways, staging areas, and fishing sites for Musqueam community members. However, disruptions to access would largely be confined to the Project footprint for the pipeline and associated facilities during construction and reclamation. The Crown understands that Musqueam Creek is located in Pacific Spirit Regional Park and would not be located in the Project footprint. Fishing and harvesting activities directly affected by the construction and operation of the WMT are not likely to occur within the expanded water lease boundaries during the operational life of the Project. Impacts on navigation, specifically in eastern Burrard Inlet, would exist for the lifetime of the Project, and would occur daily. Project-related marine vessels are expected to cause temporary disruptions to Musqueam's marine fishing and harvesting activities. Community members could be discouraged from travelling to marine fishing and harvesting sites that require these members to cross shipping lanes. Disruptions to Musqueam's marine fishing and harvesting activities are likely to be temporary when accessing fishing sites in the Burrard Inlet that require crossing shipping lanes, as community members would be able to continue their movements shortly after the tanker passes.

NEB conditions, if the Project is approved, would either directly or indirectly avoid or reduce potential access-related impacts associated with freshwater and marine fishing and harvesting areas (Section 4.3.2 and 4.3.3 of this Report) and the proponent would implement several mitigation measures to reduce potential effects on freshwater and marine fishing and harvesting activities. These mitigations include access management plans, scheduling and notification of Project activities including Project-related marine vessel traffic, and environmental monitoring programs. As previously discussed, the proponent is committed to minimize disturbance to access to Musqueam's traditional lands, as described in the Access Management Plan. The Crown understands the proponent has committed to working with Musqueam to develop strategies to most effectively communicate the construction schedule and work areas to community members. As described in Section 4.3.3, the proponent will be required to communicate Project-related vessel timing and scheduling to Aboriginal groups through a marine public outreach program (NEB Condition 131). This communication would allow Musqueam community members to take measures to reduce potential disruptions from tankers and allow planning for marine fishing and harvesting activities to take place that minimizes disturbance from Project-related tankers.

Musqueam expressed concern with the direct and indirect effects of the Project on social, cultural, and experiential aspects of its fishing activities, particularly the importance of salmon to the Musqueam culture. Musqueam expressed that there could be cultural, and intellectual impacts such as the impacts to intergenerational knowledge transfer and cultural experience from increased Project-related tanker traffic; and a lack of fish to trade with neighbouring nations and protecting their ability to fish.

As described previously, the Project pipeline and facility construction and routine maintenance is expected to cause short-term, temporary disruptions to Musqueam's fishing activities. The Crown understands that this temporary interruption could mean that community members alter their fishing activities during construction, which could affect their participation in the traditional activity. Through the construction and operation of the WMT, the Crown understands that Musqueam may experience noise disturbances and interruptions to cultural ceremonies along the shoreline, and loss or damage to visual quality of the Burrard Inlet. Project-related marine vessels are expected to cause temporary disruptions to Musqueam's marine fishing and harvesting activities. The Crown understands that community members could be discouraged from travelling to marine fishing and harvesting sites that require these members to cross shipping lanes. As described in Section 4.3.3, the proponent will be required to communicate Project-related vessel timing and scheduling to Aboriginal groups through a public outreach program (NEB Condition 131). This communication would allow Musqueam community members to take measures to reduce potential disruptions from tankers and allow planning for cultural events to take place that minimizes disturbance from Project-related tankers.

The Crown has considered available information from the NEB process, consultation with Musqueam, the proponent's proposed mitigation measures and the recommended NEB conditions, as well as relevant Provincial proposed conditions of any Environmental Assessment Certificate issued by the Province. In consideration of this information, the Crown expects impacts of Project construction and operation, and Project-related marine shipping activities on Musqueam's freshwater fishing and marine fishing and harvesting activities would be up to minor-to-moderate. The Crown expects minor impacts to fishing and marine harvesting as a result of the pipeline, and these effects would primarily occur during construction. The Crown expects minor-to-moderate impacts as a result of WMT construction, operations and Project-related marine vessels. In reaching this conclusion, the Crown has considered several factors that have been discussed above, which are summarized as follows:

- Project-related pipeline, facility, and WMT construction and operation, and marine shipping activities are likely to have low to moderate magnitude environmental effects on freshwater and marine species harvested by Musqueam;
- Construction of WMT, the pipeline and associated facilities are likely to cause short-term temporary disruptions to Musqueam's community members accessing traditional freshwater fishing and marine fishing and harvesting sites within the Project footprint; Project-related marine shipping activities are likely to cause temporary disruptions to activities or access to sites during the period of time Project-related tankers are in transit through Musqueam's traditional territory; and
- Concerns identified by Musqueam regarding Project-related effects on social, cultural, spiritual, and experiential aspects of their freshwater fishing activities.

Impacts on Other Traditional and Cultural Practices

Additional information on Musqueam's cultural and traditional practices is provided in the Project Application. As described in *Volume 5B* of the Project Application, extensive shell and bone middens served as burial sites for the Musqueam. The Musqueam people recall up to 40 separate historical village sites that represented their movement throughout the Lower Fraser delta for fishing, hunting, trapping and gathering, and to maintain their livelihood through trade with other aboriginal communities. Musqueam provided comments that the Project corridor passes multiple named sites and village sites on the Burrard Inlet side as identified in the 1976 Musqueam Declaration; however, as these sites have not been mapped, the Crown is not able to confirm whether these villages that overlap or are in close proximity to the Project corridor.

Musqueam is of the view that their cultural persistence is underpinned by the transmission of knowledge within and across generations. To Musqueam, their territory is comprised not only of named and unmanned settlements (seasonal and winter), landscape features, and transformer sites, to name a few, but mnemonic devices for both social and idiosyncratic oral traditions, oral histories and social and cultural practices. Current oral histories and practices on the landscape carry these traditions forward and layer on a continuity of Musqueam history, culture, and use of their lands and resources. Musqueam's language, *hə́ŋqəmińəhə́ŋqəmińəh* histories and practices on the landscape carry these tr

Together, the transmission of Musqueam's cultural knowledge and language is called Cultural Continuity. All other Musqueam values (e.g. fishing, hunting, arts and crafts) are dependent on the reliable and successful transmission of knowledge among Musqueam members, and thus central to the integrity of Musqueam's culture.

Musqueam's sense of place and spirituality are intrinsically linked to cultural continuity and identity. They encompass foundational intangible and tangible Musqueam values and activities including: ontological and epistemic frameworks; multi-sensory experiences of place (auditory, visual, tactile, kinesthetic); members' attachment and affinity to place (i.e., sense of place); spirituality, ceremonies, and gatherings, including practices and sacred places; arts and crafting; heritage and burial sites. The environment, place, and spirituality precipitate and reinforce social relationships (both kin and non-kin). These relationships create an identity linked to history, community, worldviews, ethics, and beliefs.

Musqueam identified many concerns related to environmental effects of the Project on other traditional and cultural practices. In Musqueam's oral traditional evidence, Richard Sparrow and Leona Marie Sparrow described many other traditional and cultural activities undertaken by community members. Morgan Guerin also provided evidence on impacts to traditional and cultural practices including the intergenerational transfer of traditional knowledge, particularly knowledge relating to fishing, such as Elders teaching youth how to mend nets, where and when to fish, and the types of species to fish at various times throughout the year. Morgan Guerin also described Musqueam's cultural and historical connection to their role as protectors of the Fraser.

As described in Section 4.3.4 of the Report, Project-related activities are not likely to result in significant adverse effects on the ability of Aboriginal groups to use land, waters or resources for traditional purposes. If the Project is approved, the NEB conditions would either directly or indirectly avoid or reduce potential environmental impacts on physical and cultural heritage resources (Section 4.3.1 of this Report) and the proponent would implement several mitigation measures to reduce potential effects on physical and cultural heritage resources important for Musqueam's traditional and cultural practices. The proponent has also committed to reduce potential disturbance to community assets and events by implementing several measures that include avoiding important community features and assets during RoW finalisation, narrowing the RoW in select areas, scheduling construction to avoid important community events where possible, communication of construction schedules and plans with community officials, and other ongoing consultation and engagement with local and Aboriginal governments.

Musqueam raised concerns with the Project's potential impacts relating to specific locations and access to other cultural and traditional resources and sites, including: impacts on travelways, particularly in the marine environment, that Musqueam community members use to access fishing sites in their asserted traditional territory. Musqueam also identified concerns related to impacts on community gathering areas, summer camps, and settlement areas throughout Musqueam's asserted traditional territory.

Project-related activities are expected to cause short-term disruptions that temporarily affect the ability of Aboriginal groups to access land, waters or resources for traditional purposes. The Crown appreciates that Musqueam's opportunities for certain traditional and cultural activities would be temporarily interrupted during construction and routine operation, and there could be reduced access to travelways, habitation sites, gathering sites, and sacred areas. However, temporary disruptions to Musqueam's traditional and cultural practices would be largely confined to sites within the Project footprint for the pipeline and associated facilities. NEB conditions, if the Project is approved, would either directly or indirectly avoid or reduce potential impacts on access to physical and cultural heritage resources (Section 4.3.4 of this Report). The Crown notes the proponent's commitment to ongoing engagement with Aboriginal groups regarding the integration of traditional knowledge related to the location and construction of the Project.

Musqueam identified concerns with direct and indirect effects of the Project on social, cultural, spiritual, and experiential aspects of its other traditional and cultural practices, including impacts on traditional trade and barter economies as exemplified by Richard Sparrow and Leona Sparrow's accounts of Musqueam's protocols with neighbouring First Nations to trade aquatic resources in exchange for hunting access to their traditional territories, and impacts on ceremonial events and community events throughout the year where salmon and other species are provided to community members as a main source of members' diets. Project construction and operation activities, as well as Project-related marine vessels in transit through Musqueam's traditional territory would cause temporary interruptions to Musqueam's cultural and spiritual practices that occur within the Project footprint and those activities that require Musqueam community member's to cross marine shipping lanes.

The Crown has considered available information from the NEB process, consultation with Musqueam, the proponent's proposed mitigation measures and the recommended NEB conditions, as well as relevant Provincial proposed conditions of any Environmental Assessment Certificate issued by the Province. In consideration of this information, the Crown expects impacts of Project construction and operation and Project-related marine shipping activities on Musqueam's other traditional and cultural practices would range from minor to minor-to-moderate. The Crown expects minor impacts as a result of the pipeline, and these effects would primarily occur during construction. The Crown expects minor-to-moderate impacts as a result of the WMT and Project-related vessels, and these effects would occur during construction and operations. In reaching this conclusion, the Crown has considered several factors that have been discussed above, which are summarized as follows:

- Project-related pipeline, facility, and WMT construction and operation, and marine shipping activities are likely to have low to moderate magnitude environmental effects on traditional and cultural resources;
- Construction of WMT, the pipeline and associated facilities are likely to cause short-term temporary disruptions to Musqueam's community members accessing traditional and cultural practice sites within the Project footprint; Project-related marine shipping activities are likely to cause temporary disruptions to activities or access to sites during the period of time Project-related tankers are in transit through Musqueam's traditional territory; and
- Concerns identified by Musqueam regarding Project-related effects on social, cultural, spiritual, and experiential aspects of their other cultural and traditional practices.

Impacts on Aboriginal Title

The Crown notes that the Project would be located within an area of Musqueam's traditional territory assessed as having a strong *prima facie* claim to Aboriginal title around the north arm of the Fraser River and that within Burrard Inlet, the claim diminishes with increasing distance from the western end.

The Crown has actively consulted with Musqueam through the NEB process and Crown consultation process as a deeper level in an attempt to better identify, understand and resolve concerns relating to Aboriginal title. Musqueam raised concerns related to the impacts of the Project on its Aboriginal title claims, including:

- Impacts that could impede or disrupt Musqueam's use of its asserted traditional territory, including access restrictions to resources and disruption of traditional activities resulting from cumulative effects to marine resources associated with increased vessel traffic;
- Activities that affect Musqueam's ability to manage and make decisions over the Project area, including reduced ability to pursue preservation objectives and vessel wake causing damage to the shoreline in Musqueam traditional territory; and
- Project-related activities that affect Musqueam's economic development aspirations for its asserted traditional territory, including reduced viability of fishing-based economy and impediments to a self-sustaining economy.

The Crown provides a description of the potential impacts of the Project on Aboriginal title in Section 4.3.5 of this Report, which includes a discussion of the numerous mitigation measures that avoid or minimize potential impacts associated with Project-related activities on asserted Aboriginal title claims. Some of these mitigations include NEB Conditions that would either directly or indirectly avoid/reduce Project impacts associated with the degree of disturbance to terrestrial, marine and aquatic environments, ongoing engagement with Aboriginal groups that has the potential to reduce impacts on the ability of Aboriginal groups to manage and make decisions over the area impacted by the Project, as well as NEB Conditions that could provide Aboriginal groups with direct and/or indirect economic benefits if the Project is approved. It is noted that Musqueam has not executed a Mutual Benefits Agreement with the proponent.

Given the potential impacts of the Project on Aboriginal title and various measures to address those impacts, as described in Section 4.3.5, it is the Crown's opinion that the Project is expected to have minor impacts on Musqueam's asserted Aboriginal title to the Project area.

Impacts Associated with Accidental Pipeline, Terminal, and Tanker Spills

Musqueam expressed several concerns with direct and indirect effects of Project-related tanker spills on their Aboriginal interests including impacts of a spill on marine habitat and species, including shoreline oiling in estuaries and sensitive habitats, potential toxicological effects to fish and other aquatic species in the Fraser River estuary, non-toxic effects of stranded oil on fish-spawning habitats, potential effects of chemicals used to clean-up spills, and vapour inhalation.

The Crown understands Musqueam's concerns regarding spills, and the potential for a spill to impact Musqueam's use and occupation of its traditional territory, ability to make governance decisions over the area impacted, and the potential for a spill to adversely impact environmental integrity, community health and economic development aspirations Musqueam has for its territory. The Crown acknowledges the numerous factors that would influence the severity and types of effects associated with a tanker spill, and that an impacts determination that relates the consequences of a spill to specific impacts on Aboriginal Interests has a high degree of uncertainty.

A discussion of the potential impacts of accidental spills on Aboriginal Interests is provided in Section 4.3.6 of this Report. In consideration of this information and analysis, as well as information available to the Crown on Musqueam's Aboriginal Interests and concerns raised by Musqueam during the NEB process and Crown consultation process, an oil spill associated with the Project could result in minor to

serious impacts on Musqueam's Aboriginal Interests. The Crown acknowledges the numerous factors that would influence the severity and types of effects associated with a pipeline, terminal or tanker spill, and that an impacts determination that relates the consequences of a spill to specific impacts on Aboriginal Interests has a high degree of uncertainty. In making this general conclusion, the Crown acknowledges Aboriginal peoples who live nearby and rely on subsistence foods and natural resources are at greatest risk for adverse effects from an oil spill.⁵

VI - Conclusion

The Crown understands the Project could adversely impact the ability of Aboriginal groups to use lands, waters and resources for traditional purposes. The Crown acknowledges that proponent commitments, recommended NEB conditions and the existing pipeline and marine safety regimes would only partially address these ongoing burdens and risks. Under the typical conditions for construction and operations of the pipeline and WMT, as well as for marine vessel use of the area between the WMT and the 12 nautical mile limit (J-buoy) through the Salish Sea and Strait of Juan de Fuca, the Crown expects impacts of the Project on the exercise of Musqueam's Aboriginal Interests would be up to minor-to-moderate.

The Crown is supportive of consultation requirements provided by the NEB and EAO in the various conditions, which would support Musqueam's ongoing involvement and participation in the proponent's detailed Project planning, including the development of site-specific measures or pipeline routing to further avoid or mitigate adverse impacts on Aboriginal Interests, as well as the involvement of Musqueam in emergency response planning activities. The federal Crown is considering additional responsive measures that would further accommodate the potential adverse impacts of the Project on Musqueam, as discussed in Sections 4 and 5 of the main body of this Report.

⁵ Trans Mountain Final Argument, p. 85 and 207