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**TO** Canadian Environmental Assessment Agency

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**BURSCO AGGREGATE PROJECT: RESPONSE TO INFORMATION REQUESTS AND COMMENTS RELATED TO CURRENT USE OF LANDS AND RESOURCES FOR TRADITIONAL PURPOSES AND MITIGATION OF POTENTIAL EFFECTS ON THAT USE**
**1.0 INTRODUCTION**

On July 29, 2016, BURSCO Rock Products Ltd (BURSCO) and 0819042 B.C. Ltd. submitted an Environmental Assessment Certificate (EAC) Application/Environmental Impact Statement (EIS) for the proposed BURSCO Aggregate Project (the Project). This technical memorandum provides responses to information requests (IRs) issued by the Canadian Environmental Assessment (CEA) Agency (i.e., CEAA-239, CEAA-241, CEAA-242) and comments made by Musqueam Indian Band (i.e., MIB-001 through MIB-006 and MIB-008 through MIB-014) following EAC Application / EIS submission. Section 2.0 of this memorandum presents the response to IRs from CEA Agency while Section 3.0 presents responses to the comments received from Musqueam Indian Band. The responses to Musqueam Indian Band's comments are provided thematically.

**2.0 RESPONSE TO CEA AGENCY INFORMATION REQUESTS REGARDING THE CURRENT USE AND RIGHTS (PART C) ASSESSMENT**

Section 2.0 of this memorandum has been developed to address CEA Agency's IRs. Table 1 provides a cross-reference of the IRs that BURSCO received from CEA Agency on November 3, 2016 and the relevant sections that address the IRs.

**Table 1: CEA Agency Information Requests**

CEA Agency IR	Relevant Subsection
Ref CEAA-239 (also CEAA-IR-45) Provide an analysis of all effects of the Project on Aboriginal groups' current use in the study area. This includes impacts to deer, elk and their key habitats, use of the area by all potentially impacted Aboriginal groups, and the effects from any potential accidents or malfunctions related to the project. Provide a list of additional proposed mitigation measures to avoid or reduce any impacts.	The analysis of potential effects of the Project on Aboriginal Groups' current use in the Project Area (as a result of routine activities) is presented in the following sections: <ul style="list-style-type: none"> <li>Section 2.2 <i>Skw̓xwú7mesh</i> Nation</li> <li>Section 2.3 Tsleil-Waututh Nation</li> <li>Section 2.4 Other Aboriginal Groups, which includes Musqueam Indian Band</li> </ul>



CEA Agency IR	Relevant Subsection
<p>Ref CEAA-241 (also CEAA-IR-47)</p> <p>Provide an assessment on the effects of the Project on current use of lands and resources for traditional purposes by Aboriginal peoples, separate from the assessment of impacts to Aboriginal rights. Include a determination of significance of the residual effects to current use of lands and resources for traditional purposes by Aboriginal peoples that is separate from impacts to Aboriginal rights.</p>	<p>The analysis of potential effects of the Project on Aboriginal Groups' current use in the Project Area (as a result of routine activities) is presented in the following sections:</p> <ul style="list-style-type: none"> <li>• Section 2.2 <i>Skwxwú7mesh</i> Nation</li> <li>• Section 2.3 Tsleil-Waututh Nation</li> <li>• Section 2.4 Other Aboriginal Groups, which includes Musqueam Indian Band</li> </ul>
<p>Ref CEAA-242 (also CEAA-IR-48)</p> <p>Provide an explanation of how the information related to current use of lands and resources for traditional purposes was verified by Aboriginal groups. If confirmed traditional use exists in Howe Sound that was not included in the EIS:</p> <ul style="list-style-type: none"> <li>• Provide a new description of each group's use of the area;</li> <li>• Conduct a new residual effects assessment on each Aboriginal group's current use of lands and resources for traditional purposes;</li> <li>• Conduct a new assessment of the potential effects of the Project on their asserted Aboriginal rights; and,</li> <li>• If residual effects are identified, conduct a revised cumulative effects assessment on current use and assess the impacts to Aboriginal Rights.</li> </ul>	<p>Information on how the information used was verified with Aboriginal Groups is provided in the following sections:</p> <ul style="list-style-type: none"> <li>• Section 2.2.6 for <i>Skwxwú7mesh</i> Nation</li> <li>• Section 2.3.6 for Tsleil-Waututh Nation</li> <li>• Section 2.4 for other Aboriginal Groups, which includes Musqueam Indian Band</li> </ul> <p>Information on current use and the effects assessments for each Aboriginal Group has been summarized from the information on Aboriginal Rights provided in EAC Application/EIS in the following sections:</p> <ul style="list-style-type: none"> <li>• Section 2.2 <i>Skwxwú7mesh</i> Nation</li> <li>• Section 2.3 Tsleil-Waututh Nation</li> <li>• Section 2.4 Other Aboriginal Groups, which includes Musqueam Indian Band</li> </ul> <p>Tsleil-Waututh provided BURNCO with a TUS to inform environmental management planning, monitoring and follow-up programs. The TUS did not contain any new information.</p> <p>Musqueam Indian Band provided additional information on use inside and outside Howe Sound in comments they provided to CEA Agency in October 2016. This new information, along with an updated current use assessment is provided in Section 2.4.</p>

## 2.1 Background

The Application Information Requirements/Environmental Impact Statement Guidelines (AIR/EISG) required that Section 11.0 of the EAC Application/EIS:

- Provide a non-confidential summary of past, present, and anticipated future uses of lands and resources in the Proposed Project area by Aboriginal groups identified in Section 10.0, including but not limited to current use of lands and resources for traditional purposes;
- Identify, in consultation with Aboriginal groups identified in Section 10.0, any specific established treaty rights and/or asserted or established aboriginal rights, including aboriginal title, in the Proposed Project area where this information is provided by these identified Aboriginal groups;

- Identify any potential effects of the Proposed Project on the uses (including the current use of lands and resources for traditional purposes) and asserted and/or established rights of Aboriginal groups identified in Section 10.0; and
- Describe mitigation measures proposed to avoid or limit Project effects to uses (including the current use of lands and resources for traditional purposes) and asserted and/or established rights of Aboriginal groups identified in Section 10.0.

Part C Section 11.0 of the EAC Application/EIS is compliant with the foregoing requirements of the AIR/EISG. Specific attention is drawn to the third and fourth bullets above, which state that potential effects of the Project and measures to address those effects were evaluated based on reported traditional “uses.” These “uses” are defined in first bullet as “past, present, and anticipated future uses of lands and resources, including but not limited to current use of lands and resources for traditional purposes” (current use), as listed under subsection 5(1)(c)(iii) of the *Canadian Environmental Assessment Act, 2012* (CEAA 2012). Part C Section 11.0 of the EAC Application/EIS notes that the assessment of potential effects on traditional uses includes consideration of cultural heritage, which is identified under subsection 5(1)(c)(ii) of CEAA 2012.

In December 2015, the CEA Agency issued a draft set of guidelines related to the assessment of current use (*Technical Guidance for assessing the Current Use of Lands and Resources for Traditional Purposes under the Canadian Environmental Assessment Act, 2012*). Current use is defined in those guidelines as “uses by Aboriginal peoples that are actively being carried out at the time of the assessment and uses that are likely to occur in a reasonably foreseeable future provided that they have continuity with traditional practices, traditions or customs.” These guidelines acknowledge that these uses may have tangible (e.g., wildlife species or traditional plants) and/or intangible values (e.g., quiet enjoyment of the landscape or sites used for teachings), and be associated with “occupancy” (e.g., transmittal of legends, oral histories, ecological knowledge about places, place names, habitation sites).

Aboriginal Groups identified by the Environmental Assessment Office (EAO) or CEA Agency in relation to the Project Area and shipping routes are non-treaty groups. All uses undertaken for traditional purposes are therefore potentially associated with the exercise of their Aboriginal rights. Information pertaining to traditional uses identified in source material or otherwise provided to BURNCO in the context of consultation by Aboriginal Groups by the time the EAC Application/EIS submission was described in Part C. Following submission of the EAC Application/EIS, CEA Agency asked for a summary of effects on current use. CEA Agency also asked that several comments from Musqueam Indian Band that provided additional information on their current use in relation to Howe Sound be included in this technical memorandum. New information provided by Musqueam Indian Band in their comments that is related to current use was considered in Section 2.4. For BURNCO’s responses to the specific comments from Musqueam Indian Band related to Part C, please refer to Section 3.0.

## **2.2 Skwxwú7mesh Nation – Summary of Current Use of Lands and Resources for Traditional Purposes in the Project Area**

BURNCO and *Skwxwú7mesh* Nation have met to discuss how to respond to CEA Agency's IRs and have agreed that a summary of *Skwxwú7mesh* current use should not be required at this stage of the EA process. BURNCO and *Skwxwú7mesh* Nation have identified one outstanding concern, which is potential impacts on hunting rights, specifically for elk and deer. Details regarding how the parties agree to resolve this concern will be included in a confidential Project agreement. BURNCO is confident that the parties will resolve this outstanding concern and does not want to delay responses to CEA Agency's IRs until the parties have reached agreement. Aspects of the response to CEA Agency IRs that relate to potential Project-related effects on *Skwxwú7mesh* Nation's Aboriginal rights will be addressed in a confidential memorandum provided directly to CEA Agency by BURNCO and *Skwxwú7mesh* Nation.

If BURNCO and *Skwxwú7mesh* Nation are unable to come to agreement by the time the Project receives Federal and Provincial EA approvals, BURNCO and *Skwxwú7mesh* Nation will report on the status of the discussions and provide an updated timeline for resolution.

## **2.3 Tsleil-Waututh Nation – Summary of Current Use of Lands and Resources for Traditional Purposes in the Project Area**

This section presents the assessment of potential Project-related effects on current use of the Local Study Area (LSA) by Tsleil-Waututh Nation. These potential effects consider how the Project could affect several factors important to Tsleil-Waututh Nation's ability to practice current use. Where information was available, the uses considered in the assessment focus on:

- Harvesting of terrestrial resources;
- Harvesting of aquatic resources, including both freshwater and marine habitats; and
- Use of culturally significant locations and travel routes.

The following measurable indicators were used for the assessment of effects on current use:

- Changes in the ability to access preferred current use locations;
- Changes in the availability or quality of preferred current use resources; and
- Changes in quality of experience when accessing preferred locations.

The discussion in the following sections is a summary of the information provided in the EAC Application/EIS with a focus on potential effects of the Project on Tsleil-Waututh Nation's current use. The key sources relied upon are provided in the EAC Application/EIS, and include input from Tsleil-Waututh Nation directly to the Proponent and publicly available sources referenced throughout the EAC Application/EIS. The citations have not been included in this memorandum. Tsleil-Waututh Nation undertook a traditional use study (TUS) for the Project and provided the study to BURNCO in January 2017. As per agreement with Tsleil-Waututh Nation, the study will be used to inform environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. The TUS did not provide any information that changes the assessment of effects presented in the EAC Application/EIS.

### **2.3.1 Context**

Tsleil-Waututh Nation has previously reported that Howe Sound holds substantial meaning and significance to their members. They describe multiple settlement and overnight campsites along the shores of Howe Sound that were used for harvesting. Culturally significant landscapes and the features associated with them include named places, village sites, transformer sites, rock art locations, wild spirit places, and travel routes, amongst others.

Tsleil-Waututh's annual round included dispersal and land-based harvesting and hunting over wide areas, with traditional harvesting in Howe Sound focused on fishing and hunting.

Tsleil-Waututh Nation has previously noted that two features of early development (i.e., Britannia Beach Mine and Woodfibre Pulp and Paper Mill) in Howe Sound have had a significant adverse effect on their resource use in the area. They report that industrial developments contributed to adverse effects to marine ecosystems in Howe Sound and as a result resource areas around these two facilities have been considered unappealing for harvesting for the majority of the 20th century.

Tsleil-Waututh Nation has stated in correspondence to BURNCO that a key goal is to expand their role in planning and development processes within the Tsleil-Waututh Nation Consultation Area to fulfill their role as stewards of the lands and resources in that area, and to protect Tsleil-Waututh Aboriginal rights, title and interests.

### **2.3.2 Potential Effects on Harvesting of Terrestrial Resources**

Tsleil-Waututh report limited harvesting of terrestrial resources in Howe Sound, including low-intensity waterfowl harvesting. Tsleil-Waututh Nation has recently (i.e., 2014) expressed concern regarding potential adverse effects from projects on several terrestrial species, including: mountain goat, Roosevelt elk, marbled murrelet, northern goshawk, northern spotted owl, and coastal tail frog.

Tsleil-Waututh Nation reports that plants were gathered for food, medicine and technological purposes. Trees are harvested or are obtained through trade and are used to carve canoes and poles.

#### **2.3.2.1 Changes in Access**

Access management and control provisions are not yet fully developed for the Project. However, as an industrial construction and operations area, it is inevitable that some minimum, mandatory access control provisions would be necessary for site security and for safety at least through construction and operations. As Tsleil-Waututh Nation has identified past, current, and ongoing future use of the surrounding area that rely on freedom of movement within the Project Area, there is the potential for a residual effect on access without implementation of mitigation measures.

To address potential effects on access to preferred locations for current use, BURNCO proposes the following mitigation measure:

- Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport Management Plan described in Section 16.0. Based on provisions of the Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect access to the Project Area to harvest terrestrial resources. It is anticipated that the Marine Transport Management Plan will include the following provisions that are relevant to access for harvesting of terrestrial resources:
  - Details of communications channels to be used for all Proposed Project vessels;
  - Proposed Project related safety procedures for vessels calling;
  - Proposed Project related safety procedures for loading at the terminal;
  - Procedures on how the construction marine control zone will be defined, marked and communicate to the public as per Transport Canada requirements;
  - Requirements for aids and navigational lights as per the Navigation Protection Program permitting process;
  - Lighting techniques to be undertaken at the terminal to reduce the interference from lighting on navigation; and
  - Requirements for Notices to Mariners and Notices to Shipping.

In the period since the EAC Application/EIS was submitted, BURNCO provided funding to Tsleil-Waututh to conduct a traditional use study to provide information on current use that will inform mitigation, environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. Tsleil-Waututh completed the study and provided it to BURNCO in January 2017.

### **2.3.2.2 *Changes in Availability or Quality of Preferred Resources***

Potential adverse effects to terrestrial resources during all phases of the Project are considered in Section 5.3 Terrestrial Wildlife and Vegetation of the EAC Application/EIS. Waterfowl were considered in Section 5.2 Marine Resources. Mitigation measures described in Sections 5.2 and 5.3 to address potential effects on terrestrial and marine resources are expected to be effective at addressing effects on the availability and quality of preferred terrestrial resources.

No mitigation measures beyond those included in Section 5.3 of the EAC Application/EIS are proposed to address potential effects on availability and quality of preferred terrestrial resources for Tsleil-Waututh current use.

### **2.3.2.3 Changes in Quality of Experience**

As current use includes more than the physical act of harvesting a resource or occupying a space on the landscape, all forms of sensory disturbance are considered for effects on current use.

It is anticipated that Project-related construction and operations activities could affect quality of experience through noise and visual changes (Sections 9.2 Noise and 7.4 Visual Resources). Implementation of mitigation measures regarding noise are provided in Section 9.2. Noise due to construction is temporary and the activities are variable and move between the processing plant, the pit location and barge loading dock. To mitigate the potential noise effects associated with operations, the Proponent would construct a Processing Area Dirt Berm to serve as noise screens resulting in a negligible residual effect. Following mitigation, there still may be noise during times of day when harvesting of terrestrial resources would occur, resulting in effects on quality of experience while practicing current use activities.

After the implementation of mitigation measures to address changes in visual resources (Section 7.4), a small level of residual visual change to the landscape is expected during construction, with marine users in Thornbrough Channel the most affected. The Processing Area Dirt Berm proposed as a mitigation measure for noise effects in Section 9.2 may also have an effect on the scenic character of the Project Area during operations. As visual changes would persist following mitigation, potential effects on quality of experience are anticipated.

All Project effects identified in construction and operations would cease. Reclamation during decommissioning would have beneficial effects on terrestrial resources that may have a positive effect on harvesting quantities. Therefore, effects during reclamation are not carried forward.

To address potential effects on quality of experience when accessing preferred locations for current use, BURNCO proposes the following mitigation measure:

- Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Access Marine Transport Management Plan described in Volume 3, Part E - Section 16.0. Based on provisions of the Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect the quality of experience tied to fishing, hunting and cultural activities in the Project Area.
- Consult with Tsleil-Waututh on measures that could reduce effects of visual changes from the Project on the quality of use experience and on cultural activities and transmission of culture and history within Howe Sound.

In the period since the EAC Application/EIS was submitted, BURNCO provided funding to Tsleil-Waututh to conduct a traditional use study to provide information on current use that will inform mitigation, environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. Tsleil-Waututh completed the study and provided it to BURNCO in January 2017

### **2.3.3 Potential Effects on Harvesting of Aquatic Resources**

In Howe Sound, Tsleil-Waututh Nation reports traditional harvesting of shellfish, marine mammals, aquatic plants and various fish species, noting that marine resources in Howe Sound remain important for current and future generations of Tsleil-Waututh Nation's members. Resources were used immediately, or processed and stored for use in the winter while Tsleil-Waututh was residing in large village in and around Burrard Inlet.

Tsleil-Waututh Nation reports that it maintains confidential records related to the seasonality and procurement of culturally important marine species. These records indicate several areas of fishing activity and numerous shellfish harvesting locations at multiple areas in Howe Sound. They identify a large part of Howe Sound to be a priority prawn harvesting area.

#### **2.3.3.1 Changes in Access**

Access management and control provisions are not yet fully developed for the Project. However, as an industrial construction and operations area, it is inevitable that some minimum, mandatory access control provisions would be necessary for site security and for safety at least through construction and operations. As Tsleil-Waututh Nation has identified past, current, and ongoing future use of the surrounding area that rely on freedom of movement within the Project Area, there is likely to be some potential residual effect without implementation of mitigation measures.

To address potential effects on access to preferred locations for current use, BURNCO proposes the following mitigation measure:

- Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport Management Plan described in Section 16.0. Based on provisions of the Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect access to the Project Area to harvest aquatic resources. It is anticipated that the Marine Transport Management Plan will include the following provisions that are relevant to access for harvesting of aquatic resources:
  - Details of communications channels to be used for all Proposed Project vessels;
  - Proposed Project related safety procedures for vessels calling;
  - Proposed Project related safety procedures for loading at the terminal;
  - Procedures on how the construction marine control zone will be defined, marked and communicate to the public as per Transport Canada requirements;
  - Requirements for aids and navigational lights as per the Navigation Protection Program permitting process;
  - Lighting techniques to be undertaken at the terminal to reduce the interference from lighting on navigation;
  - Requirements for Notices to Mariners and Notices to Shipping; and
  - Marine mammal mitigation requirements such as: speed restrictions, avoiding marine mammals, and maintaining constant speeds and course.



In the period since the EAC Application/EIS was submitted, BURSCO provided funding to Tsleil-Waututh to conduct a traditional use study to provide information on current use that will inform mitigation, environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. Tsleil-Waututh completed the study and provided it to BURSCO in December 2016.

### **2.3.3.2 Changes in Availability or Quality of Preferred Resources**

Potential adverse effects to aquatic resources during all phases of the Project are considered in Section 5.1 Fisheries and Freshwater Habitat and Section 5.2 Marine Resources of the EAC Application/EIS. Mitigation measures described in Sections 5.1 and 5.2 to address potential effects on aquatic resources are expected to be effective at addressing effects on the availability and quality of preferred aquatic resources. Residual effects on fisheries and freshwater habitat (Section 5.1) are considered to be negligible.

Potential effects on aquatic resources post-closure are likely minor or negligible, and additional mitigation or effect characterization beyond what is provided in Sections 5.1 and 5.2 are not pursued in this section.

No mitigation measures beyond those included in Sections 5.1 and 5.2 of the EAC Application/EIS are proposed to address potential effects on availability and quality of preferred aquatic and marine resources for Tsleil-Waututh current use.

### **2.3.3.3 Changes in Quality of Experience**

Current use includes more than the physical act of harvesting a resource or occupying a space on the landscape; therefore, sensory disturbance is considered for effects on current use.

It is anticipated that Project-related construction and operations activities could affect quality of experience through noise and visual changes (Sections 9.2 Noise and 7.4 Visual Resources). Implementation of mitigation measures regarding noise are provided in Volume 2, Part B - Section 9.2. Noise due to construction is temporary and the activities are variable and move between the processing plant, the pit location and barge loading dock. To mitigate the potential noise effects associated with operations, the Proponent would construct a Processing Area Dirt Berm to serve as noise screens resulting in a negligible residual effect. Following mitigation, there still may be noise during times of day when harvesting of aquatic resources would occur, resulting in effects on quality of experience while practicing current use activities.

After the implementation of mitigation measures to address changes in visual resources (Section 7.4), a small level of residual visual change to the landscape is expected during construction, with marine users in Thornbrough Channel the most affected. The Processing Area Dirt Berm proposed as a mitigation measure for noise effects in Section 9.2 may also have an effect on the scenic character of the Project Area during operations. As visual changes would persist following mitigation, potential effects on quality of experience are anticipated.

No ongoing effects from the Project are anticipated for aquatic resources following reclamation and closure.

To address potential effects on quality of experience when accessing preferred locations for current use, BURNCO proposes the following mitigation measure:

- Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport Management Plan described in Section 16.0. Based on provisions of the Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect the quality of experience tied to fishing, hunting and cultural activities in the Project Area
- Consult with Tsleil-Waututh on measures that could reduce effects of visual changes from the Project on the quality of use experience and on cultural activities and transmission of culture and history within Howe Sound.

In the period since the EAC Application/EIS was submitted, BURNCO provided funding to Tsleil-Waututh to conduct a traditional use study to provide information on current use that will inform mitigation, environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. Tsleil-Waututh completed the study and provided it to BURNCO in January 2017.

### **2.3.4 Potential Effects on Use of Culturally Significant Locations or Travel Routes**

Tsleil-Waututh members explain that all areas used for traditional purposes, such as fishing, hunting, and gathering, are considered sacred. They report that the landscape utilized for these purposes was shaped, in the very distant past, by the Transformers — or *Xáls*, *Xexá:ls*, or *Khaals* — who commenced their journey at the Fraser River delta travelling upstream and creating the world. Tsleil-Waututh Nation explains that several landforms in Howe Sound are linked with powerful spirit beings, and many landscapes feature are used in traditional ceremonial practices.

Tsleil-Waututh note that waterways within their asserted territory were the principal means of travel between sites, summer camps, and hunting, fishing, and gathering locations and the remain important travel corridors for members. Tsleil-Waututh report that their members seasonally travel up Howe Sound to access the Squamish Valley. In addition to travel along waterways, Tsleil-Waututh also travelled along a series of trails that ran between various village/camp sites, as well as between village/camp sites and inland resources and spiritual/ceremonial locations.

Tsleil-Waututh Nation previously reported that one of their key goals “is to expand its participation in all planning and development processes that take place on their traditional territory” so that the once-abundant resources can be restored, protected and utilized on a sustainable basis and so our culture can continue to thrive”.

Sensory disturbances that affect an individual’s connection to the land may diminish the spiritual enjoyment and fulfilment associated with the activity, and may result in the unwillingness or inability to exercise Aboriginal Rights, which are associated with cultural heritage components contemplated in CEAA 2012 5(1)(c)(ii) and (iv). Mitigation, avoidance, offsetting, compensation or accommodation measures should be considered to reduce the severity or duration of effects through this pathway.

### **2.3.4.1 Changes in Access**

Access management and control provisions are not yet fully developed for the Project. However, as an industrial construction and operations area, it is inevitable that some minimum, mandatory access control provisions would be necessary for site security and for safety at least through construction and operations. As Tsleil-Waututh Nation has identified past, current, and ongoing future use of the surrounding area that rely on freedom of movement within the Project Area, there is likely to be some potential residual effect without implementation of mitigation measures.

To address potential effects on access to preferred locations for current use, BURNCO proposes the following mitigation measure:

- Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport Management Plan described in Volume 3, Part E - Section 16.0. Based on provisions of the Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect access to the Project Area when visiting culturally significant locations or using travel routes. It is anticipated that the Marine Transport Management Plan will include the following provisions that are relevant to access for harvesting of terrestrial resources:
  - Details of communications channels to be used for all Proposed Project vessels;
  - Proposed Project related safety procedures for vessels calling;
  - Proposed Project related safety procedures for loading at the terminal;
  - Procedures on how the construction marine control zone will be defined, marked and communicate to the public as per Transport Canada requirements;
  - Requirements for aids and navigational lights as per the Navigation Protection Program permitting process.
- Consult with Tsleil-Waututh Nation to identify locations within Howe Sound where members may conduct practices related to intangible culture heritage, timing of such practices, if relevant, and measures that would reduce effects from the Project on the ability to conduct those practices.

In the period since the EAC Application/EIS was submitted, BURNCO provided funding to Tsleil-Waututh to conduct a traditional use study to provide information on current use that will inform mitigation, environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. Tsleil-Waututh completed the study and provided it to BURNCO in January 2017.

### **2.3.4.2 Changes in Availability**

No culturally significant locations have been identified by Tsleil-Waututh during consultations with BURSCO related to the Project. To address any potential Project-related effects on such locations, BURSCO proposes the following mitigation measures:

- Consult with Tsleil-Waututh Nation to identify locations within Howe Sound where members may conduct practices related to intangible culture heritage, timing of such practices, if relevant, and measures that would reduce effects from the Project on the ability to conduct those practices.

In the period since the EAC Application/EIS was submitted, BURSCO provided funding to Tsleil-Waututh to conduct a traditional use study to provide information on current use that will inform mitigation, environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. Tsleil-Waututh completed the study and provided it to BURSCO in January 2017.

### **2.3.4.3 Changes in Quality of Experience**

Current use includes more than the physical act of occupying a space on the landscape. Forms of sensory disturbance are therefore relevant considerations for effects on current use.

It is anticipated that Project-related construction and operations activities could affect quality of experience through noise and visual changes (Sections 9.2 Noise and 7.4 Visual Resources). Implementation of mitigation measures regarding noise are provided in Volume 2, Part B - Section 9.2. Noise due to construction is temporary and the activities are variable and move between the processing plant, the pit location and barge loading dock. To mitigate the potential noise effects associated with operations, the Proponent would construct a Processing Area Dirt Berm to serve as noise screens resulting in a negligible residual effect. Following mitigation, there still may be noise during times of day when harvesting of aquatic resources would occur, resulting in effects on quality of experience while practicing current use activities.

After the implementation of mitigation measures to address changes in visual resources (Section 7.4), a small level of residual visual change to the landscape is expected during construction, with marine users in Thornbrough Channel the most affected. The Processing Area Dirt Berm proposed as a mitigation measure for noise effects may also have an effect on the scenic character of the Project Area during operations. As visual changes would persist following mitigation, potential effects on quality of experience are anticipated.

To address potential effects on quality of experience when accessing preferred locations for current use, BURSCO proposes the following mitigation measure:

- Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport Management Plan described in Volume 3, Part E - Section 16.0. Based on provisions of the Access Management Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect the quality of experience tied to fishing, hunting and cultural activities in the Project Area.
- Consult with Tsleil-Waututh Nation to identify locations within Howe Sound where members may conduct practices related to intangible culture heritage, timing of such practices, if relevant, and measures that would reduce effects from the Project on the ability to conduct those practices.

In the period since the EAC Application/EIS was submitted, BURSCO provided funding to Tsleil-Waututh to conduct a traditional use study to provide information on current use that will inform mitigation, environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. Tsleil-Waututh completed the study and provided it to BURSCO in January 2017.

- Consult with Tsleil-Waututh on measures that could reduce effects of visual changes from the Project on the quality of use experience and on cultural activities and transmission of culture and history within Howe Sound.

### **2.3.5 Residual Effects and Cumulative Effects**

Mitigation measures proposed in Part C of the EAC Application/EIS consist of further consultations with Tsleil-Waututh Nation. These discussions are advancing, but have yet to be concluded. Successful implementation of the mitigation measures described would result in negligible (and not significant) residual effects. Negligible effects are not carried forward to the cumulative effects assessment. As BURSCO is committed to working with Tsleil-Waututh Nation to develop and implement the mitigation measures described above, no residual effects on current use are expected.

Should the proposed mitigation measures not be fully implemented by the time the Project receives Federal and Provincial EA approvals, BURSCO will report on the status of the discussions and provide an updated timeline for implementation.

### **2.3.6 Verification of Information the Assessment**

BURSCO provided Tsleil-Waututh Nation with a preliminary draft of the background information prepared from publicly-available sources to be included in the EAC Application/EIS for review and comment on November 9, 2015. BURSCO also provided Tsleil-Waututh with the draft effects assessment and First Nations Consultation Report for review and comment on January 8, 2016 prior to finalizing the EAC Application/EIS. BURSCO incorporated all comments received from Tsleil-Waututh on those sections of the EAC Application/EIS (see Section 13.1.2 Tsleil-Waututh Nation on pages 13-3 through 13-7 of the EAC Application/EIS).

BURSCO provided Tsleil-Waututh Nation with relevant sections of this memorandum on February 17, 2017. Tsleil-Waututh declined to comment on the memorandum as it did not incorporate the comments they provided on the Application through the Technical Working Group.

The key themes for Tsleil-Waututh's comments on the Application that are relevant to Part C of the EAC Application/EIS and linked VCs include:

- The LSA/RSA is not sufficient as it doesn't include shipping lanes; therefore, the assessment does not provide a holistic perspective of impacts.
- Assessing human and wildlife health through pathways such as water quality does not provide a holistic view of impacts.
- Cumulative effects assessments should include past (using a pre-contact baseline), present and future impacts. They should also consider effects generated by mitigation and adaptive measures.
- Habitat loss/effects should be avoided.

- Mitigation measures should occur prior to the effects occurring.
- An assessment of the cultural health of Aboriginal peoples should be conducted. Effects that “disconnect Aboriginal peoples from their culture is far more cumulative and holistic in scope than an assessment on air, noise and contaminated foods.” Human Health should include social, mental or cultural aspects of human health. A focus on biophysical aspects is not acceptable to Tsleil-Waututh.
- Effects on Tsleil-Waututh culture are unacceptable, even if they will cease at some point in the Project lifecycle.
- While VC selection aligns with EA process, they would like to see proponents go beyond the minimum.
- How can an effect be considered negligible if there is no way to know if the mitigation measure will work?

BURNCO provided responses to all of Tsleil-Waututh’s comments through the Technical Working Group. Those responses are included in the Issues Technical Working Group Tracking Table submitted to BC EAO and CEA Agency and are not repeated in this memorandum.

### **2.3.7 Summary of Potential Effects on Tsleil-Waututh Nation Current Use**

Table 2 provides a summary of the assessment of potential Project-related effects on current use by Tsleil-Waututh Nation.

**Table 2: Summary of Effects Assessment on Tsleil-Waututh Nation's Current Use of Lands and Resources for Traditional Purposes**

Category	Current Use in the Study Area	Potential Project Interaction	Potential Effect on Current Use of Lands and Resources for Traditional Purposes	Mitigation Proposed in EAC Application/EIS	Residual Effects	Significance Determination	Verification of Assessment/ Status of Discussions
Harvesting Terrestrial Resources	<ul style="list-style-type: none"> <li>▪ Key terrestrial animals harvested:                             <ul style="list-style-type: none"> <li>○ Ungulates (i.e., elk, deer)</li> <li>○ Bear</li> <li>○ Waterfowl</li> </ul> </li> <li>▪ Key plants harvested:                             <ul style="list-style-type: none"> <li>○ Variety of berries</li> <li>○ Cascara</li> <li>○ Licorice root</li> <li>○ Devil's club</li> <li>○ Variety of trees</li> </ul> </li> </ul>	<p>Project activities may:</p> <ul style="list-style-type: none"> <li>▪ Directly or indirectly affect access to preferred harvest locations</li> <li>▪ Directly affect the resource and/or habitat</li> <li>▪ Directly or indirectly affect the quality of experience through sensory disturbance or changes to visual quality</li> </ul>	<p>The following potential effects were identified as potentially measureable prior to implementation of Part C mitigation:</p> <ul style="list-style-type: none"> <li>▪ Changes in access to terrestrial resources</li> <li>▪ Changes in availability or quality of terrestrial resources (with a focus on ungulate quality and quantity)</li> <li>▪ Changes in quality of experience during harvesting of terrestrial resources.</li> </ul>	<ul style="list-style-type: none"> <li>▪ As provided in Sections 5.3 Terrestrial Resources, 7.2 Marine Transport, 7.4 Visual Resources and 9.2 Noise</li> <li>▪ Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport and Access management plans described in Volume 3, Part E - Section 16.0. Based on provisions of the Access Management Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect opportunities or access to pursue fishing, hunting and cultural activities in the Project Area</li> <li>▪ Consult with Tsleil-Waututh on measures that could reduce effects of visual changes from the Project on the quality of use experience and on cultural activities and transmission of culture and history within Howe Sound.</li> </ul>	None	N/A	<p>Tsleil-Waututh Nation have indicated general agreement with the findings of the Current Use assessment. Tsleil-Waututh have provided no new information on Current Use that would change the conclusions of the assessment. BURNCO funded a traditional use study, which was received in January 2017. As per agreement with Tsleil-Waututh Nation, the study will be used to inform environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. BURNCO and Tsleil-Waututh Nation have met to discuss how to advance the proposed mitigation measures, and BURNCO is committed to continuing consulting with Tsleil-Waututh Nation in a meaningful way.</p>
Fishing and Harvesting Freshwater and Marine Resources	<ul style="list-style-type: none"> <li>▪ Key fish species harvested:                             <ul style="list-style-type: none"> <li>○ All species of salmon</li> <li>○ Eulachon, herring and smelt</li> <li>○ Variety of groundfish</li> </ul> </li> <li>▪ Key aquatic plants harvested:                             <ul style="list-style-type: none"> <li>○ Seaweeds</li> </ul> </li> <li>▪ Key shellfish harvested:                             <ul style="list-style-type: none"> <li>○ Crabs</li> <li>○ Prawns</li> <li>○ Oysters</li> </ul> </li> <li>▪ Sea mammals harvested:                             <ul style="list-style-type: none"> <li>○ Porpoises</li> <li>○ Seals</li> <li>○ Sea lions</li> </ul> </li> </ul>	<p>Project activities may:</p> <ul style="list-style-type: none"> <li>▪ Directly or indirectly affect access to preferred harvest locations;</li> <li>▪ Directly affect the resource and/or habitat;</li> <li>▪ Directly or indirectly affect the quality of experience through sensory disturbance or changes to visual quality</li> </ul>	<p>The following potential effects were identified as potentially measureable prior to implementation of Part C mitigation:</p> <ul style="list-style-type: none"> <li>▪ Changes in access to freshwater and marine resources</li> <li>▪ Changes in availability or quality of freshwater and marine resources (including freshwater and marine habitat quality and quantity)</li> <li>▪ Changes in quality of experience during fishing or harvesting freshwater or marine resources.</li> </ul>	<ul style="list-style-type: none"> <li>▪ As provided in Sections 5.1 Fisheries and Freshwater Habitat, 5.2 Marine Resources, 7.2 Marine Transport, 7.4 Visual Resources and 9.2 Noise</li> <li>▪ Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport and Access management plans described in Volume 3, Part E - Section 16.0. Based on provisions of the Access Management Plan (Volume 3, Part E - Section 16.0) , develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect opportunities or access to pursue fishing, hunting and cultural activities in the Project Area</li> <li>▪ Consult with Tsleil-Waututh on measures that could reduce effects of visual changes from the Project on the quality of use experience and on cultural activities and transmission of culture and history within Howe Sound.</li> </ul>	None	N/A	<p>Tsleil-Waututh Nation have indicated general agreement with the findings of the Current Use assessment. Tsleil-Waututh have provided no new information on Current Use that would change the conclusions of the assessment. BURNCO funded a traditional use study, which was received in January 2017. As per agreement with Tsleil-Waututh Nation, the study will be used to inform environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. BURNCO and Tsleil-Waututh Nation have met to discuss how to advance the proposed mitigation measures, and BURNCO is committed to continuing consulting with Tsleil-Waututh Nation in a meaningful way.</p>

Category	Current Use in the Study Area	Potential Project Interaction	Potential Effect on Current Use of Lands and Resources for Traditional Purposes	Mitigation Proposed in EAC Application/EIS	Residual Effects	Significance Determination	Verification of Assessment/ Status of Discussions
Culturally-Significant Locations or Travel Routes	<ul style="list-style-type: none"> <li>▪ All areas used for traditional purposes considered sacred.</li> <li>▪ Several landforms identified as linked with powerful spirit beings and used in ceremonies.</li> <li>▪ Waterways considered principal means of travel, including several recorded canoe routes.</li> <li>▪ Trails between villages and camps.</li> </ul>	<p>Project activities may:</p> <ul style="list-style-type: none"> <li>▪ Directly or indirectly affect access to preferred locations;</li> <li>▪ Loss of culturally-significant locations;</li> <li>▪ Directly or indirectly affect the quality of experience through sensory disturbance or changes to visual quality</li> </ul>	<p>The following potential effects were identified as potentially measurable prior to implementation of Part C mitigation:</p> <ul style="list-style-type: none"> <li>▪ Changes in access to locations associated with transmission of culture and history</li> <li>▪ Changes in availability (i.e., direct loss)</li> <li>▪ Changes in quality of experience associated with the sensory environment / environmental setting at locations associated with the transmission of culture and history.</li> </ul>	<ul style="list-style-type: none"> <li>▪ As provided in Sections 7.2 Marine Transport, 7.4 Visual Resources and 9.2 Noise</li> <li>▪ Provide Tsleil-Waututh Nation with opportunities to review and provide input to the Marine Transport and Access management plans described in Volume 3, Part E - Section 16.0. Based on provisions of the Access Management Plan, develop a communications plan with Tsleil-Waututh Nation to provide Tsleil-Waututh Nation with real-time information on construction and operations activities, including movement of Project-associated vessels, that may affect opportunities or access to pursue fishing, hunting and cultural activities in the Project Area</li> <li>▪ Consult with Tsleil-Waututh Nation to identify locations within Howe Sound where members may conduct practices related to intangible culture heritage, timing of such practices, if relevant, and measures that would reduce effects from the Project on the ability to conduct those practices.</li> <li>▪ Consult with Tsleil-Waututh on measures that could reduce effects of visual changes from the Project on the quality of use experience and on cultural activities and transmission of culture and history within Howe Sound.</li> </ul>	None	N/A	<p>Tsleil-Waututh Nation have indicated general agreement with the findings of the Current Use assessment. Tsleil-Waututh have provided no new information on Current Use that would change the conclusions of the assessment. BURNCO funded a traditional use study, which was received in January 2017. As per agreement with Tsleil-Waututh Nation, the study will be used to inform environmental management planning, monitoring and follow-up programs, in consultation with Tsleil-Waututh Nation. BURNCO and Tsleil-Waututh Nation have met to discuss how to advance the proposed mitigation measures, and BURNCO is committed to continuing consulting with Tsleil-Waututh Nation in a meaningful way.</p>



## 2.4 Other Aboriginal Groups – Summary of Current Use of Lands and Resources for Traditional Purposes in the Project Area

As directed by CEA Agency, BURSCO relied on publicly-available sources for the assessment of potential Project-related effects on current use of lands and resources for traditional purposes by Aboriginal Groups identified for by CEA Agency for the Project. These sources included regulatory documents for other projects in proximity to the Project Area. BURSCO provided all identified Aboriginal Groups with a preliminary draft of the background information prepared from publicly-available sources that were to be included in the EAC Application/EIS for review and comment in November 2015. As noted in Section 13.1.3, BURSCO provided Aboriginal Groups with the updated background information and draft effects assessment and First Nations Consultation Report for review and comment in January 2016 prior to finalizing the EAC Application/EIS. BURSCO addressed all review comments that were received from Aboriginal Groups in response to these requests.

BURSCO did not find information indicating that Cowichan Tribes, Halalt First Nation, Penelakut Tribe, Stz'uminus First Nation and Métis Nation British Columbia use Howe Sound in the exercise of their Aboriginal Rights, including current use of lands and resources for traditional purposes. Sources reviewed indicated that Musqueam potentially harvested aquatic resources, specifically herring, in Howe Sound and birds on Bowen and Passage islands and the entrance to Howe Sound. The sources did not indicate that these activities occurred in areas that overlap with the LSAs or RSAs for the linked Part B VCs.

Section 5.2 Marine Resources concluded that the proposed marine terminal footprint does not overlap with any previously identified herring spawning sites and that construction activities or potential accidental spills would not adversely affect herring populations in the LSAs or RSAs. With respect to birds harvested on Bowen and Passage islands, these islands were not included in the LSAs or RSAs for neither 5.2 Marine Resources, which considered marine birds, nor 5.3 Terrestrial Wildlife and Vegetation, which considered terrestrial birds.

As no interactions from the Project on current use by the above-noted Aboriginal Groups were identified based on the information available to BURSCO, an assessment of potential effects on current use of lands and resources for traditional purposes specifically, and Aboriginal Rights generally, was not undertaken for Aboriginal Groups aside from *Skwxwú7mesh* Nation and Tseil-Waututh Nation.

On October 3, 2016, Musqueam Indian Band submitted comments to CEA Agency following their review of the EAC Application/EIS, several of which provided additional information regarding current use. BURSCO considered the new information to identify any of potential Project-related effects on current use by Musqueam Indian Band. The uses considered in the assessment focused on:

- Harvesting of terrestrial resources;
- Harvesting of aquatic resources, including both freshwater and marine habitats; and
- Use of culturally significant locations and travel routes.

The measurable indicators used to identify potential Project-related interactions on Musqueam current use were:

- Changes in the ability to access preferred current use locations;
- Changes in the availability or quality of preferred current use resources; and
- Changes in quality of experience when accessing preferred locations.

Table 3 provides a summary of the assessment of potential Project-related effects on current use by Musqueam Indian Band. The new information provided by Musqueam Indian Band does not include locations for their use, and does not change the conclusions of the assessment presented in the EAC Application/EIS. As no potential interactions between that use and the Project components or activities are predicted, and potential Project-related effects on that use were not considered further in the assessment.

**Table 3: Summary of Effects Assessment on Musqueam Indian Band Current Use of Lands and Resources for Traditional Purposes**

Category	Current Use in the Study Area	Potential Project Interaction	Potential Effect on Current Use of Lands and Resources for Traditional Purposes	Mitigation Proposed in EAC Application/EIS	Residual Effects	Significance Determination	Verification of Assessment/ Status of Discussions
Harvesting Terrestrial Resources	<ul style="list-style-type: none"> <li>▪ Terrestrial animals reported:                             <ul style="list-style-type: none"> <li>○ Mountain goat</li> <li>○ Hunting deer</li> <li>○ Birds</li> </ul> </li> <li>▪ Terrestrial plants reported:                             <ul style="list-style-type: none"> <li>○ Food and medicinal plants</li> </ul> </li> </ul>	<p>No interactions between the Project and preferred resources identified by Musqueam Indian Band as the assessment of potential effects on terrestrial resources in Section 5.3 resulted in no significant residual effects.</p> <p>No potential interactions between the Project and terrestrial values were identified on the eastern shore of Bowen and Passage islands.</p> <p>No potential project interactions affecting access or quality of experience when using resources could be identified as specific locations of use were not found in available sources nor identified to the Proponent.</p>	N/A	N/A	N/A	N/A	<ul style="list-style-type: none"> <li>▪ N/A</li> </ul>
Fishing and Harvesting Freshwater and Marine Resources	<ul style="list-style-type: none"> <li>▪ Aquatic and marine species reported:                             <ul style="list-style-type: none"> <li>○ Halibut and cod</li> <li>○ Capelin/smelt</li> <li>○ Herring</li> <li>○ Clams</li> <li>○ Sea mammals</li> </ul> </li> </ul>	<p>No interactions between the Project and preferred resources identified by Musqueam Indian Band as the assessment of potential effects on freshwater and marine resources in Sections 5.1 and 5.2 found no significant residual effects.</p> <p>No potential project interactions affecting access or quality of experience when using resources could be identified as specific locations of use were not found in available sources nor identified to the Proponent.</p>	N/A	N/A	N/A	N/A	N/A
Culturally-Significant Locations or Travel Routes	<ul style="list-style-type: none"> <li>▪ Reported camping sites</li> </ul>	<p>No potential project interactions affecting access or quality of experience when using resources could be identified as specific locations of use were not found in available sources nor identified to the Proponent.</p>	N/A	N/A	N/A	N/A	N/A

### 3.0 RESPONSE TO MUSQUEAM INDIAN BAND COMMENTS REGARDING THE CURRENT USE AND RIGHTS (PART C) ASSESSMENT

BURNCO received comments submitted by Musqueam Indian Band to CEA Agency on October 3, 2016 resulting from their review of the EAC Application/EIS. Table 4 provides the comments considered in Section 3.0 are:

**Table 4: Comments Received from Musqueam Indian Band**

Comment ID	Comment
MIB-001	Our review of the Application/EIS concludes that the proposed Project would result in a significant increase in the barge traffic throughout Musqueam's territorial waters, including Howe Sound, the Salish Sea and the Fraser River.
MIB-002	The Musqueam people exercise their Aboriginal rights, including fishing and other marine activity related rights, in the aforementioned waters.
MIB-003	The proposed route for barge traffic passes directly through Musqueam's traditional fishing extents in Howe Sound, the Salish Sea and the Fraser River. Given the significant constraints already imposed upon fishing with Musqueam's marine use territories, including existing shipping activities, legacy impacts (i.e., long-lasting effects from past projects and activities), and current fishery conservation restrictions, the increased barge traffic posed by this Project will cumulatively pose an adverse impact on Musqueam's ability to meaningfully exercise constitutionally protected fishing activities recognized in the Sparrow decision.
MIB-004	The Application/EIS does not accurately characterize Musqueam's rights-based traditional use activities and how these activities will be affected by the increased barge traffic associated with the Project.
MIB-005	The proposed transport of processed aggregate material by barges to BURNCO's existing facilities in Burnaby or Langley, will pass directly through Musqueam territorial waters at the eastern entrance to Howe Sound, the Salish Sea and the Fraser River, and as such, potentially poses a hazard to Musqueam's recognized and constitutionally protected priority fishing activities that take place in these areas.
MIB-006	This is a sizable increase in vessel movements through Musqueam's fishing areas; such an increase will pose new daily hazards and potential adverse effects to the spaces in Musqueam practices their constitutionally protected rights. Any potential adverse effect on Musqueam's affirmed rights requires the Crown to consult with, and accommodate Musqueam.
MIB-008	The effects of the barging component on Musqueam's rights based activities and Current Use of Lands and Resources for Traditional Purposes (CULRTP) have not been adequately characterized or assed due to the following gaps: a) Inadequately scoped project that excludes existing barge routes in the Strait of Georgia and Fraser River; and b) Missing information on Musqueam use in the currently defined Local Study Area (LSA) and Regional Study Area (RSA). Once these gaps are filled, effects from barge shipping, and subsequent increase in marine traffic on Musqueam rights and interests will need to be assessed.
MIB-009	Where there are admitted potential effects to Musqueam's rights-based practices, the Proponent inaccurately claims that these practices are limited to the Fraser River (e.g., see Section 11.4.2.3 of the Application/EIS), and subsequently excludes this area from the scope of the assessment. Additional traffic on the Fraser River during fishing seasons is an adverse impact on Musqueam fishing rights.
MIB-010	Where the spatial boundaries of the EA overlap with Musqueam's traditional territory, such as within Howe Sound, Burrard Inlet, and the Salish Sea, the Proponent fails to provide any information regarding our members' use of these areas.

Comment ID	Comment
MIB-011	<p>The absence of potential interactions between the Project and Musqueam's rights-based practices (in either Part C or under the CULRTP VC) is a notable gap in the assessment that the Agency and EAO must require the Proponent to address. Any sizable increase in barge traffic through Musqueam's territorial waters has the potential to adversely impact Musqueam's rights-based activities. To this effect, Musqueam requests:</p> <ol style="list-style-type: none"> <li>a) The Proponent be required to provide an assessment of Musqueam current and future rights-based harvesting activities in and around the eastern entrance to Howe Sound and the Salish Sea, subject to direct engagement with Musqueam on information provided herein, and a thorough assessment of effects;</li> <li>b) The EAO's section 11 Order and CEA Agency's scope of review be revised to include the barge traffic in the Strait of Georgia and the Fraser River; and</li> <li>c) The Local and Regional Assessment Areas for CULRTP be expanded accordingly.</li> </ol>
MIB-012	<p>Documented fish and marine values for these location include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Herring in Burrard Inlet, part of RSA and adjacent LSA;</li> <li>• Halibut and cod fishing from the eastern shores of Howe Sound in RSA;</li> <li>• Sturgeon fishing upstream from Burrard Inlet likely in LSA;</li> <li>• Capelin/smelt caught at low water along beaches of Howe Sound in RSA;</li> <li>• Clam digging in RSA; and</li> <li>• Sea mammal harvesting in RSA.</li> </ul>
MIB-013	<p>Documented terrestrial values for the eastern shore of Howe Sound and islands within the Sound include:</p> <ul style="list-style-type: none"> <li>• Mountain goat;</li> <li>• Camping;</li> <li>• Hunting deer; and</li> <li>• Gathering medicines - root gathering, berry picking, cedar bark and other trees.</li> </ul>
MIB-014	<p>Musqueam requests that the Proponent be required to provide the following additional information:</p> <ul style="list-style-type: none"> <li>• Traditional use information on current use in Howe Sound and Burrard Inlet is added to the Application/EIS, subject to direct engagement with Musqueam on information provided herein, and a thorough re-assessment of effects is completed; and</li> <li>• Assessment of potential effects of accidents and malfunctions on terrestrial use and values on Bowen Island and Passage Island in relation to Musqueam rights, including current use.</li> </ul>
MIB-015	<p>Prior to this EA process proceeding further, we request that CEAA and the EAO provide Musqueam with a plan for consulting with Musqueam regarding the potential adverse effects posed by additional barge traffic on Musqueam's Aboriginal rights throughout Musqueam territory in a manner that includes a meaningful assessment of effects and potential accommodation mechanisms.</p>

Section 3.1 provides responses to the comments arranged by common themes. **Table 5** cross references the comment ID numbers to the relevant themes. Each comment is responded to individually in a comment tracking table submitted separately to CEA Agency.

**Table 5: Themes for Responses**

Theme	Comment IDs
Project-related Shipping	Relevant comments: MIB-001, MIB-002, MIB-003, MIB-004, MIB-005, MIB-006, MIB-008, MIB-009, MIB-015
Information Sources Relied Upon for the Assessment	Relevant comments: MIB-004, MIB-008, MIB-009, MIB-010, MIB-011, MIB-012, MIB-013, MIB-014
Potential Effects on Musqueam Indian Band's Current Use of Lands and Resources for Traditional Purposes and Aboriginal Rights	Relevant comments: MIB-002, MIB-003, MIB-004, MIB-005, MIB-006, MIB-008, MIB-009, MIB-010, MIB-011, MIB-012, MIB-013, MIB-014, MIB-015
Potential Effects of Accidents and Malfunctions	Relevant comments: MIB-014

### 3.1 Response by Theme

#### 3.1.1 Project-related Shipping

In response to Musqueam Indian Bands comments related to potential effects on their current use due to an increase in Project-related barge traffic, BURNCO notes that on October 2, 2013, BURNCO submitted a Marine Shipping Scoping Rationale for the Proposed BURNCO Aggregate Project to CEA Agency. The shipping analysis indicated that the Project would result in an incremental change in tug/barge traffic of:

- 92% increase along Ramillies Channel;
- 9.6% increase along Thornbrough Channel;
- 12.3% increase along Queen Charlotte Channel to south of Passage Island;
- 0% net change from south of Passage Island, along the Strait of Georgia, to the North and South Arms of the Fraser River; and
- 0% net change along the Fraser River to the load-out facilities in Burnaby and Langley.

Consequently, shipping lanes in the Strait of Georgia and the Fraser River were not included in the spatial boundary for the assessment. As Project-related shipping or barging would not occur in Burrard Inlet, it was also not included in the assessment.

### 3.1.2 Information Sources Relied Upon for the Assessment

Several IRs note Musqueam's concern regarding the information relied upon for the assessment of potential effects from the Project on Musqueam current use. As directed by CEA Agency, BURSCO relied on publicly-available sources for the effects assessment, including Musqueam Indian Band's own *Musqueam Comprehensive Land Claim: Preliminary Report on Musqueam Land Use and Occupancy* and *We Are of One Heart and One Mind: A Comprehensive Sustainable Community Development Plan*, as well as regulatory documents for other projects in proximity to the Project Area. BURSCO provided Musqueam Indian Band with a preliminary draft of the background information prepared from publicly-available sources to be included in the EAC Application/EIS for review and comment on November 9, 2015. BURSCO also provided Musqueam Indian Band with the draft effects assessment and First Nations Consultation Report for review and comment on January 8, 2016 prior to finalizing the EAC Application/EIS. BURSCO did not receive responses to either request.

### 3.1.3 Potential Effects on Musqueam Indian Band's Current Use of Lands and Resources for Traditional Purposes and Aboriginal Rights

In response to Musqueam's comments related to current use, the LSA was selected to include the immediate freshwater and terrestrial footprint of the Project and adjacent areas. These areas are where potential Project-related disturbances could occur during the construction, operation, reclamation and closure phases. The RSA was selected to be larger in scope, encompassing an area broader than the immediate footprint of the Project. RSA boundaries were selected to represent an appropriate scale that provides relevant context for consideration of the Project effects, offer useful and meaningful data, and neither over-emphasizes nor under-emphasizes the scale of the Project effects. The scope of the assessment does not include shipping from where the barges meet the existing shipping lanes in the Strait of Georgia and in the Fraser River or Burrard Inlet.

In response to Musqueam's comments related to the information presented regarding Musqueam's current use of aquatic and marine resources in Howe Sound, the sources relied on for this assessment did not specify the fish and marine values at the locations indicated:

- Halibut and cod fishing from the eastern shores of Howe Sound in RSA;
- Capelin/smelt caught at low water along beaches of Howe Sound in RSA;
- Clam digging in RSA; and
- Sea mammal harvesting in RSA.

The Proponent did note in Section 11.4.2.3.1 of the EAC Application/EIS that sources indicated that herring was harvested by Musqueam in Howe Sound; however, no specific locations within Howe Sound were identified. As noted in Section 5.2.4.6, no sensitive fish habitats overlap with the Project Area, including no known spawning sites for key forage fish species, such as herring or capelin.

The potential effects of the Project were assessed for marine resources in Section 5.2 and no significant residual effects are predicted for this VC. The Proponent is of the view that the Project does not have the potential to affect marine resources that are relevant to Musqueam's current use.

In response to Musqueam's comments related to current use of terrestrial resources, specifically:

- Mountain goat;
- Camping;
- Hunting deer; and
- Gathering medicines - root gathering, berry picking, cedar bark and other trees.

The Proponent did note in Section 11.4.2.3.2 of the EAC Application/EIS that Musqueam harvested birds on Bowen and Passage islands; however, the sources relied on for this assessment did not provide specific information for Musqueam use of Howe Sound for these terrestrial values, such as species harvested or specific locations. No potential interactions between the Project and terrestrial values were identified on the eastern shore of Bowen and Passage islands; therefore, these areas were not included in the spatial boundaries for the effects assessment for the Terrestrial Wildlife and Vegetation VC. Further, the potential effects of the Project were assessed for terrestrial resources in Section 5.3 and no significant residual effects are predicted for this VC. The Proponent is of the view that the Project does not have the potential to affect terrestrial resources that are relevant to Musqueam's current use.

### **3.1.4 Potential Effects of Accidents and Malfunctions**

In response to Musqueam's concerns about potential effects of accidents and malfunctions on terrestrial use and values on Bowen and Passage islands, the Proponent will develop and implement the following plans:

- 1) A Spill Prevention and Emergency Response Plan (SERP) will be developed and implemented for the Project. The SERP will set measures and controls in place to (i) prevent release of toxic or deleterious substances into the environment as a result of an accidental event and (ii) contain and clean up spills and leaks in cases where a release (accidental event) has occurred. More information on the SERP is provided in Section 16.6.
- 2) A Marine Transport Management Plan will also be prepared (see Section 16.2.2.11), which will provide details on safety procedures for vessels calling and loading at the terminal. The Project's mined aggregate, materials and wastes will be shipped via Seaspan tugs and barges that are operated by highly experienced mariners who are familiar with the navigational routes in Howe Sound and regularly service the forestry industry. Project-related tugs and barges will be required to adhere to regulations for preventing collisions at sea. Seaspan has implemented and maintained an Environmental Management System that conforms to ISO 14001:2004, which includes a Spill Prevention and Response Best Management Plan (BMP). The BMPs are provided in Volume 4, Part G – Section 22.0: Appendix 16-A of the EAC Application/EIS.



## 4.0 CLOSURE

We trust that this response meets the current information requirements. Please contact the undersigned with questions or comments.

**GOLDER ASSOCIATES LTD.**

Reviewed by:

<Original signed by>

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