

1 **15 KITSELAS FIRST NATION**

2 This section of the Application provides an assessment of the effects of the Project on
3 Kitselas First Nation interests, conducted as described in Section 6.0, with departures from conventional
4 assessment based on the feedback provided by interested Indigenous nations (e.g., duration;
5 magnitude). Additional feedback provided by Kitselas First Nation has influenced other aspects of the
6 assessment (i.e., not limited to the assessment methods). For example, as described in Section 15.1.4,
7 Kitselas First Nation identified five values that are connected to each of the potential effects, these
8 include history, future, lands, authority, and community (Kitselas First Nation 2023). Kitselas First Nation
9 provided a table of potential interactions between the Project activities and physical works and the
10 five values the Nation has identified (Kitselas First Nation 2023). Kitselas First Nation also identified
11 Nation-specific indicators for this assessment (Kitselas First Nation 2023); the indicators are included in
12 Table 15.1–2, as applicable.

13 The assessment of potential Project effects (both adverse and positive) on Kitselas First Nation interests
14 includes consideration of impacts to Aboriginal or treaty rights recognized and affirmed by section 35 of
15 the *Constitution Act, 1982* as well as any other interests identified by the Nation.

16 **15.1 Scope and Methods**

17 The assessment of effects on Kitselas First Nation interests was scoped according to the following steps:

- 18 • Identify appropriate contacts and engage with Kitselas First Nation to understand the nature
19 and content of their Indigenous rights, recognizing that Kitselas First Nation are best placed to
20 identify the Project’s potential impacts on their rights
- 21 • Identify guiding values and “valued components” (**VCs**) with respect to the Application, through
22 the identification of Kitselas First Nation priority values and topics associated with community
23 well-being, cultural expression, and the preferred means of exercising their rights
- 24 • Establish clear criteria with input from the Kitselas First Nation on impact characterizations
- 25 • Establish an iterative two-way dialogue on measures proposed to address the impact
- 26 • Maintain ongoing engagement throughout the environmental assessment (**EA**) process, which
27 includes revisiting these steps and the analysis, which will be subject to revision based on new
28 information and continued dialogue between all parties

29 Additional information regarding the efforts taken to scope the assessment with Kitselas First Nation is
30 provided in Section 15.1.2.

1 **15.1.1 Regulatory Context**

2 The following current federal and provincial acts, impact assessment policies and best practices guided
3 the assessment:

- 4 • British Columbia Declaration on the *Rights of Indigenous Peoples Act*
5 (Province of British Columbia 2019) and associated Action Plan for 2022-2027 (Province of
6 British Columbia 2022)
- 7 • British Columbia *Environmental Assessment Act (BC EAA)* (2018)
- 8 • BC Environmental Assessment Office (**BC EAO**) (2020a) Guide to Indigenous Knowledge in
9 Environmental Assessments
- 10 • BC EAO (2020b) Effects Assessment Policy
- 11 • Impact Assessment Agency of Canada (**The Agency**) (2022) Guidance: Assessment of Potential
12 Impacts on the Rights of Indigenous Peoples
- 13 • The Agency (2020a) Guidance: Indigenous Knowledge under the *Impact Assessment Act*
- 14 • The Agency (2020b) Guidance: Protecting Confidential Indigenous Knowledge under the
15 *Impact Assessment Act*
- 16 • The Agency (2021) Guidance: Gender-based Analysis Plus in Impact Assessment
- 17 • The Agency (2022a) *Impact Assessment Act* – Effects within Federal Jurisdiction
- 18 • The Agency (2022b) *Impact Assessment Act* – Factors defined under Section 22(1)
- 19 • The Agency (2022c) Indigenous Knowledge Policy Framework for Project Reviews and
20 Regulatory Decisions

21 **15.1.1.1 Statutory Requirements Under the Federal *Impact Assessment Act***

22 The scope of this assessment is designed to address statutory requirements under the IAA and the
23 equivalent requirements of the BC EAA for the assessment of Project-related effects on Kitselas First
24 Nation's rights and interests. The outcomes of this assessment relative to the statutory requirements
25 under the federal *Impact Assessment Act* are provided in Section 15.12.1 and address the following
26 factors and effects:

- 27 • Factor 22 (1)(c): Changes to Kitselas First Nation's Rights Recognized and Affirmed by section 35
28 of the *Constitution Act, 1982*
- 29 • Factor 22 (1)(g): Consideration of Indigenous Knowledge Provided with Respect to the Project
- 30 • Factor 22(1)(l): Consideration of Changes to Kitselas First Nation Culture
- 31 • Factor 22(1)(r): Consistency with any Plan or Study Prepared by Kitselas First Nation that has
32 been Provided for the Project (including any existing Land-Use or Marine-Use Plans)
- 33 • Factor 22(1)(s): Disproportionate Effects on Distinct Human Populations (Intersections of Sex
34 and Gender with Other Identity Factors)
- 35 • Effects under Section 2(b)(i): Changes to the Environment that would occur on Federal Lands

- 1 • Effects under Section 2(c)(i): Changes to Physical and Cultural Heritage
- 2 • Effects under Section 2(c)(ii): Changes to Current Use of Lands and Resources for
- 3 Traditional Purposes
- 4 • Effects under Section 2(c)(iii): Changes to any Structure, Site or Thing of Historical,
- 5 Archaeological, Paleontological, or Architectural
- 6 • Effects under Section 2(d): Changes to the Health, Social or Economic Conditions of the
- 7 Indigenous Peoples of Canada

8 A complete listing and analysis of the Application’s concordance to federal requirements can be found in
9 Section 24.0 Summary of Statutory Requirements under the federal *Impact Assessment Act*.

10 **15.1.2 Influence of Consultation and Engagement**

11 This section of the Application provides information regarding the efforts taken to seek the views of
12 Kitselas First Nation with respect to the Project.

13 **15.1.2.1 Summary of Past Engagement**

14 The Proponents have engaged directly with Kitselas First Nation since March 2021. This engagement
15 includes:

- 16 • Introducing the Project and the Proponents
- 17 • Providing notification of Project steps and processes
- 18 • Providing a copy of the draft Application Information Requirements (**dAIR**), the Detailed Project
- 19 Description (**DPD**), the VC selection document, and other Project materials for review and
- 20 comment
- 21 • Providing a copy of the preliminary list of potential effects and preliminary list of information
- 22 sources for review and comment
- 23 • Signing an Environmental Assessment and Regulatory Process Funding Agreement that provides
- 24 funding for Kitselas First Nation to undertake studies to understand Project-related effects to
- 25 their interests and to participate in the environmental assessment process
- 26 • Providing preliminary drafts of EA documents and technical data reports for review in advance
- 27 of submission to the BC EAO
- 28 • Providing updates regarding Project design and evolving timelines

1 The Proponents remained available to engage diverse populations of Kitselas First Nation (also referred
2 to herein as ‘the Nation’) in culturally appropriate ways at the direction of Nation leadership, including a
3 consideration of disproportionately distributed effects on Indigenous local group/sub-group (e.g., clan,
4 family) areas within the broader territory, and groups identified by gender, age, or other community
5 relevant factors to support the collection of information needed to complete the gender-based analysis
6 plus (GBA Plus). For the GBA Plus assessment, the Proponents also relied on publicly available
7 information, and information contained in the studies prepared for the Project by Kitselas First Nation
8 (see Section 15.1.3).

9 Other diverse methods of engagement were also made available through public consultation activities,
10 including the following:

- 11 • Online or phone-based consultation opportunities were often used as alternatives to in-person
12 meetings, included holding open houses and information sessions virtually and in the evenings,
13 to provide greater accessibility for those limited in mobility, with time, financial or other familial
14 constraints
- 15 • Early engagement phase documents were posted on the BC EAO’s website
- 16 • A website with Project information and contact information for how to request in-person
17 meetings was maintained

18 Information regarding the influence of Kitselas First Nation comments, key information, and concerns on
19 the assessment are described below in Table 15.1–1.

20 Additional information regarding the Proponents’ engagement with Kitselas First Nation will be provided
21 in the Proponents’ Indigenous Engagement Report.

22 **15.1.2.2 Key Areas of Concern**

23 The development of the Application Information Requirements (**AIR**) and this assessment was
24 influenced by the Proponents’ consultation with members of Kitselas First Nation. This section describes
25 information and concerns related to Kitselas First Nation interests shared through consultation.

26 Table 15.1–1 provides a summary of the key information (including Indigenous knowledge), and
27 concerns that the Proponents identified as part of its consultation and engagement efforts with
28 Kitselas First Nation, as well as a summary of the influence that the outcomes of this consultation and
29 engagement had on the assessment.

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
<p>Kitselas First Nation’s right to participate in decision-making and to be engaged in a meaningful way including through consensus seeking and incorporating feedback.</p>	<ul style="list-style-type: none"> • The Proponents have established an Environmental Assessment and Regulatory Process Funding Agreement that provides funding for Kitselas First Nation to undertake studies to understand Project-related effects to their interests and to participate in the environmental assessment process. • The Proponents have continued engagement with Kitselas First Nation to discuss the Project and its effects, understand concerns that may arise and respond to those concerns. • Summaries of past and planned engagement with Kitselas First Nation are provided in Sections 15.1.2.1 and 15.12.3.
<p>Extent of Project planning and scope, including:</p> <ul style="list-style-type: none"> • power supply • transmission line and associated lack of assessment of potential residual effects, because Kitselas First Nation may not have an opportunity to review the potential effects of the transmission line to the same extent as for this Project. • onshore pipeline • offshore pipeline interacting with Kitselas eulachon village <i>lax’a’ta</i> (south shore at the mouth of the Nass River) • greenhouse gas (GHG) emissions and net-zero plan • condensate • hazardous waste • increased marine vessel traffic 	<ul style="list-style-type: none"> • The Application has assessed the potential effects of the Project activities and interactions identified by Kitselas First Nation. These assessments are found in Sections 7.2 to 7.15, the results of which have informed the assessment of potential effects on Kitselas First Nation interests. <p><u>Power supply</u></p> <ul style="list-style-type: none"> • As described in Section 1.9.3, the Project is designed to be powered through a connection to the BC Hydro grid; however, if the connection is delayed, there is an alternate project design that would accommodate a temporary alternative power supply until grid power is available. Temporary power barges using closed-loop onshore cooling towers is the preferred/only option still under consideration should an on-Site power generation source be required. A final decision on whether temporary electric power generation is required will depend on studies to be completed by BC Hydro related to the availability and timing of the permanent electrical power supply. Temporary power barge operation would result in GHG emissions, which are included in the air quality and climate change assessments (Sections 7.2 and 8.0).

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
	<p><u>Transmission line</u></p> <ul style="list-style-type: none"> • Nisga’a Nation intends to undertake a lead role in the assessment of the transmission line on Nisga’a Lands under Chapter 10 of the Nisga’a Treaty and will be responsible for granting the land authorizations for the right-of-way that will be required. The interconnection transmission line from Nisga’a lands to the Site is included in the assessment as a Project component (see Section 15.1.5). The third-party provider will be responsible for applying for the other necessary Crown authorizations for the interconnection transmission line for those sections not located on Nisga’a Lands. • Section 15.8.2 provides a summary of potential adverse residual effects of the transmission line on the interests identified by Kitselas First Nation. • Section 15.11.2 provides a summary of potential adverse residual cumulative effects on Kitselas First Nation interests in relation to the transmission line. • Kitselas First Nation concerns regarding the assessment of potential residual effects and cumulative effects associated with the transmission line will be communicated by the Proponents to the third-party responsible for the transmission line and the BC EAO. <p><u>Pipeline</u></p> <ul style="list-style-type: none"> • The Project will be supplied with pipeline grade natural gas from the Western Canadian Sedimentary Basin by an approximately 650 to 750 km long natural gas transmission pipeline which will be built, operated, and owned by a third party (as described in Section 1.4.6.1). The feed gas pipeline will be considered in the Project’s cumulative effects assessment as a reasonably foreseeable project. The Application for the pipeline will require amendment to support an amended marine pipeline route with a delivery point at the Site. • Cumulative effects to Kitselas First Nation interests related to the pipeline are assessed in Section 15.10. • Kitselas First Nation concerns regarding the offshore pipeline interacting with Kitselas eulachon village <i>lax’a’tə</i> will be communicated to third-party proponents.

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
	<p><u>Air emissions, GHGs</u></p> <ul style="list-style-type: none"> • The assessment of the potential effects of the Project on air quality is provided in Section 7.2. • Climate change has also been identified as a topic to be assessed for the Project; Section 8.0 provides the GHG estimates from the Project during construction and operation. Decommissioning phase emissions are expected to be less than construction phase emissions. The assessment of GHG emissions associated with the Project considered direct and indirect emissions. • The Strategic Assessment of Climate Change (SACC) provides a framework to establish whether a designated project will hinder or contribute to Canada’s ability to meet its international commitments to reduce GHG emissions by 30% below 2005 levels by 2030, and to help to achieve a low carbon economy by 2050. The SACC requires: <ul style="list-style-type: none"> • Estimation of GHG emissions for the Project • Estimation of GHGs from upstream activities • Review of best available technologies • Assessment of climate change resilience • Plan to achieve net-zero emissions by 2050 • The SACC TDR (Appendix 8B) provides mitigation measures and net-zero plan, carbon sinks, and upstream GHG assessment.

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
	<p><u>Condensate</u></p> <ul style="list-style-type: none"> • Liquefied natural gas is a non-toxic, non-corrosive, colourless, odourless, clear fluid (see Section 9.5.1). The process of converting natural gas to LNG removes impurities, leaving a mixture that is predominantly methane with smaller and progressively reducing proportions of ethane, propane, butane, and pentane. Certain impurities (carbon dioxide [CO₂], sulfur, hydrogen sulfide [H₂S], mercury and water) must be removed from the natural gas before it can be introduced into the LNG production equipment. This is due to the potential to harm LNG production equipment, LNGCs and LNG regasification equipment at customer facilities. The equipment to remove impurities will be on the floating liquefied natural gas (FLNG) production, storage and offloading facilities and are described in Section 1.4.4.1. • The remaining heavy hydrocarbons are called condensate and are a by-product of NGL extraction. The condensate from the liquefaction process is directed to storage tanks located on the FLNGs. Condensate will be loaded on a periodic basis (e.g., an early estimate is every 30 to 40 days) onto conventional NGL product vessels (see Section 1.4.4.3). Condensate export will be conducted by third party shippers who will load condensate from the FLNGs; the NGL carriers are then anticipated to depart following the same shipping route as LNGCs travelling west past Triple Island, the northern end of Haida Gwaii and into open waters. Based on current planning and design, condensate will not be off-loaded through the Port of Prince Rupert and moved inland by rail. The export of condensate will be further addressed during FEED.

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
	<p><u>Management of waste</u></p> <ul style="list-style-type: none"> Management of solid and hazardous wastes during the construction and operation phases of the Project is described in Section 1.9.5.1 Where possible, non-hazardous wastes will be recycled or reused. Where reuse is not possible, waste will be stored at the Site and then shipped for disposal at a local landfill, other approved waste disposal facility, or a recycling facility in compliance with applicable legal requirements. No other means for waste management have been considered for the Project. Management of wastewater during the construction and operation phases of the Project is described in Section 1.9.5.2. <p><u>Marine shipping route and increased marine vessel traffic</u></p> <ul style="list-style-type: none"> LNGCs, NGL product vessels, and tugboats will be owned, insured, and operated by third parties. The present estimate of LNG shipments per year is between 140 and 160, depending on the size of the LNGCs used and the total LNG produced by the Project (see Section 1.4.6.3). To address marine safety and potential marine accidents and malfunctions, a navigation safety assessment has been conducted as part of the Application. See Section 9.0 for more information on the navigation safety assessment. Marine shipping is also included as a Project component for the assessment of potential effects on Kitselas First Nation interests (see Section 15.1.5).

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
<p>Impacts of accidents and malfunctions onshore and offshore.</p>	<ul style="list-style-type: none"> • The Application has assessed the potential effects of onshore and offshore malfunctions and accidents to the surrounding environment. To address marine safety and potential marine accidents and malfunctions, a navigation safety assessment has been conducted as part of the Application. See Section 9.0 for more information on the navigation safety assessment and malfunctions and accidents. • Section 9.0 also describes the prevention and response methods the Proponents will employ to reduce the risk of and manage potential effects of onshore and offshore malfunctions and accidents, including spill and release scenarios. • The potential effects of the environment on the Project, and any cascading potential effects of the Project on the environment, including the hazards posed by extreme weather and natural disasters, are assessed in Section 10.0. • Highway 113/Nisga’a Highway between Terrace and Gingolx is anticipated to be a primary road transportation route to the Site. Project crews are expected to be bused from Terrace to Gingolx via Highway 113/Nisga’a Highway. Terrace is expected to be a supply centre and Highway 113/Nisga’a Highway could be used to transport workers and supplies. An assessment of potential vehicular accidents on Highway 113 and related effects on community safety, access and wildlife is found in Section 9.8.
<p>Potential social and economic impacts from the Project workforce.</p>	<ul style="list-style-type: none"> • The assessment of changes to Kitselas First Nation social and economic conditions resulting from potential effects of the Project workforce is provided in Sections 15.4 and 15.6. Cumulative changes to Kitselas First Nation health, social and economic conditions are assessed in Section 15.10. • The Proponents have committed to implementing mitigation and enhancement measures to reduce potential adverse effects and enhance positive effects of the Project on the social and economic interests of Indigenous nations and local communities. These measures include developing and implementing a personnel drug and alcohol policy, developing and implementing traffic safety measures for Project-related travel between Prince Rupert, Terrace and Gingolx, and developing and implementing a social and economic effects management plan. The complete list of Project mitigation measures is found in Appendix A. • Potential effects of the Project workforce are also assessed in Section 7.10 Employment and Economy, Section 7.11 Marine Use, Section 7.12 Infrastructure and Services, Section 7.13 Community Health and Wellness and Section 7.14 Human Health. The outcomes of these assessments relative to Kitselas First Nation are discussed within Sections 15.2 to 15.7, as applicable.

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
<p>Implementation of Kitselas First Nation laws, customs and protocols.</p>	<ul style="list-style-type: none"> • The Proponents recognize the importance of early and meaningful engagement with Indigenous nations and strive to establish and maintain mutually respectful relationships with Indigenous nations engaged with the Project. • Since engagement with the Kitselas First Nation began in 2021, we have been acting in a manner consistent with this objective. Going forward, the Proponents will continue to implement these same principles and looks forward to ongoing discussions with Kitselas First Nation according to the Nation's preferences, laws, customs and protocols. • Feedback, including Indigenous knowledge, shared by Kitselas First Nation has informed the Proponents' understanding of existing conditions and the assessment of Project effects on Kitselas First Nation interests in Section 15.0 and applicable VC Sections. • The Application has also assessed the potential effects of the Project on the VCs that support the interests identified by Kitselas First Nation (e.g., marine resources). These assessments are found in Sections 7.2 to 7.15, the results of which have informed the assessment of potential effects on Kitselas First Nation interests. • Sections 15.2 to 15.7 provide the assessments of potential effects of the Project on the interests identified by Kitselas First Nation. Section 15.10 provides the assessment of cumulative effects on Kitselas First Nation interests. • The Proponents are committed to working directly with Kitselas First Nation to identify opportunities for Kitselas First Nation to realize potential benefits from the Project that can be used to both offset potential adverse effects and create positive effects for the Nation. • Summaries of past and planned engagement with Kitselas First Nation are provided in Sections 15.1.2.1 and 15.12.3.

Table 15.1–1 – Summary of Key Information, Indigenous Knowledge and Concerns for the Project Related to Kitselas First Nation Interests

Key Information and Concerns	Influence on the Assessment
<p>Potential impacts on Kitselas First Nation rights and interests, including:</p> <ul style="list-style-type: none"> • the assessment not reflecting a “compromised” baseline • stewardship rights and responsibilities. • safe access to clean air, water, lands, resources and preferred sites for peaceful enjoyment, harvesting and cultural and spiritual practice within Kitselas First Nation territory • revitalization, development, and transmission to future generations the Nation’s traditional knowledge, histories, oral traditions, and place names relating to the Project area • cultural, historical and heritage connection to the North Coast region • ability to sustain preferred practices of traditional land-based and marine-based rights • changes to navigation, safety, and open water, coastal or intertidal harvesting due to increased marine vessel traffic and wakes within Chatham Sound • marine, terrestrial and human health cumulative effects along the coast from the Port of Prince Rupert to Pearse Island which have already resulted in reduced ability to access and harvest resources in the quantity needed 	<ul style="list-style-type: none"> • Feedback, including Indigenous knowledge, shared by Kitselas First Nation has informed the Proponents’ understanding of existing conditions and the assessment of Project effects on Kitselas First Nation interests in Section 15.0 and applicable VC chapters. • The Application has also assessed the potential effects of the Project on the VCs that support the interests identified by Kitselas First Nation (e.g., marine harvesting, foreshore harvesting, terrestrial harvesting, cultural continuity). These assessments are found in Sections 7.2 to 7.15, the results of which have informed the assessment of potential effects on Kitselas First Nation interests. • Sections 15.2 to 15.7 provide the assessments of potential effects of the Project on the interests identified by Kitselas First Nation. Section 15.10 provides the assessment of cumulative effects on Kitselas First Nation’s interests. • The distribution of disproportionate effects on Kitselas First Nation interests is considered throughout the assessment in Section 15.0. Based on the predicted residual effects, the ways in which the Project may disproportionately affect on Kitselas First Nation subgroups are described in Section 15.8.1. • The Proponents are committed to working directly with Kitselas First Nation to identify opportunities for Kitselas First Nation to realize potential benefits from the Project that can be used to both offset potential adverse effects and create positive effects for the Nation.

1 **15.1.3 Indigenous Knowledge, Information Sources, Assumptions, and Limitations**

2 The Proponents understand that there is no universally accepted definition of Indigenous knowledge,
3 and that it is community specific, and place based, arising from Indigenous peoples' intimate
4 relationship with their environment and territory over thousands of years (The Agency 2022c).
5 Indigenous knowledge is therefore understood to be embedded within Indigenous legal, political, and
6 governance systems, and may include Nation-specific direct observations about the biophysical world,
7 as well as ecological indicators, oral histories, community practices, language, teachings, laws,
8 relationships, rituals, cultural identity, spirituality, worldview, cultural values and other ways of knowing
9 that have been identified by the Nation (BC EAO 2020a; The Agency 2022c). Indigenous knowledge is
10 considered cumulative and dynamic, developed through the experiences of earlier generations,
11 informing the practice of current generations, and evolving in the context of contemporary Indigenous
12 societies (The Agency 2022c). Indigenous knowledge used in this Application is derived from ongoing
13 engagement, Project-specific and nation-led studies, secondary sources, and publicly available
14 information identified through engagement with Kitselas First Nation. The treatment of Indigenous
15 knowledge within this section of the Application is presented with any changes requested by
16 Kitselas First Nation following opportunities for review and comment.

17 The Proponents recognize that Kitselas First Nation is best positioned to identify the sources of
18 information, including Indigenous knowledge, appropriate for this assessment. The sources of
19 information and Indigenous knowledge used in describing background information for the assessment
20 of effects on Kitselas First Nation interests were provided to Kitselas First Nation for review and
21 comment. This included meeting with Kitselas First Nation to discuss the Nation's preferred approach
22 and use of appropriate publicly available documents.

23 Kitselas First Nation has prepared the following studies for the Project, which have been reviewed and
24 incorporated in this assessment:

- 25 • Preliminary Report: Kitselas First Nation Traditional Use and Occupancy Study for the Ksi Lisims
26 LNG Project, Pearse Island, Portland Inlet (Kitselas First Nation 2022a)
- 27 • Kitselas First Nation's Community Well-being Risk Report for the Ksi Lisims LNG Project
28 (Kitselas First Nation 2022b)
- 29 • Final Report: Kitselas First Nation Traditional Use and Occupancy Study for the Ksi Lisims LNG
30 Project, Pearse Island, Portland Inlet (Kitselas First Nation 2022c)
- 31 • Kitselas First Nation: Ksi Lisims Interactions with Kitselas Values (Kitselas First Nation 2023)

32 This section provides information regarding the alignment of the use of Indigenous knowledge shared by
33 Kitselas First Nation with its respective policies and protocols, consent for its use and public disclosure,
34 and views regarding the characterization of Indigenous knowledge within the Application.

1 This section also describes, as applicable, if no feedback regarding the use, public disclosure or
2 characterization of Indigenous knowledge was provided by an Indigenous nation. In this case and as
3 applicable, the Application has considered publicly available information and non-confidential outcomes
4 of Project consultation activities to date.

5 Refer to Section 6.0 for detailed methods regarding the incorporation of Indigenous knowledge into the
6 Application.

7 The Proponents will remain available through Application review should Kitselas First Nation bring
8 forward additional information related to this assessment.

9 This assessment uses a conservative approach that recognizes that an absence of Indigenous or
10 traditional use information does not necessarily represent an absence of Indigenous or traditional use
11 for that location or activity. This assessment assumes that Indigenous and traditional use sites, activities
12 and resources have the potential to occur on accessible land within the Nation's territory and that
13 Indigenous or traditional use species identified as being present near the Project could be hunted,
14 trapped, fished, or gathered by Indigenous nations, even if Indigenous nations did not identify specific
15 sites, areas or resources in relation to the Project.

16 **15.1.3.1 Literature Review**

17 A literature review was conducted to provide an overview of existing publicly available information for
18 Kitselas First Nation.

19 The literature review focused on social and economic, demographic and ethnographic information for
20 Kitselas First Nation as well as information related to the availability of harvested resources, access to
21 resources and use areas, and locations of cultural importance that support the exercise of rights as
22 described by Kitselas First Nation. The Proponents also identified and considered potential Project
23 effects on Kitselas sub-groups from literature review where effects have been demonstrated in similar
24 resource development projects. The identification of Kitselas First Nation sub-groups considered those
25 members that may experience disproportionate effects of the Project due to the intersectionality of
26 identity factors (e.g., Indigenous females, Indigenous low-income single parent households, Indigenous
27 two spirit individuals, Indigenous individuals with disabilities) (The Agency 2021; Province of British
28 Columbia 2018; see also Section 7.13). The literature review considers information from the following
29 sources:

- 30 • Publicly available information collected for studies previously completed by the Indigenous
31 nations for other development projects in the region
- 32 • Regulatory filings for proximate projects
- 33 • Government reports and databases
- 34 • Historical and ethnographic literature
- 35 • Relevant internet sources (e.g., Nation websites)

36 Information was drawn from sources relevant to the locations of the Project assessment areas and to
37 Kitselas First Nation.

1 **15.1.4 Identifying Interests for Assessment**

2 Indigenous interests, as defined by the BC EAO, refer to “interests related to an Indigenous nation and
3 their rights recognized and affirmed by section 35 of the *Constitution Act, 1982*, including Treaty rights
4 and Aboriginal rights and title, that may be impacted by a proposed project” (BC EAO 2020a). The
5 Proponents understand that Indigenous interests are intricately linked and are also connected to the
6 Nation’s rights, culture, history, protocols, health and well-being.

7 A preliminary list of six Indigenous interests was identified for this assessment through engagement with
8 Kitselas First Nation and review of issues and concerns about the Project raised by Kitselas First Nation
9 (Section 15.1.2.2 Key Areas of Concern). Additional guidance from current federal and provincial acts,
10 impact assessment policies and best practices also informed the identification of Indigenous interests
11 for this assessment (Section 15.1.1 Regulatory Context).

12 The preliminary list of potential effects on Kitselas First Nation interests is as follows:

- 13 • Changes to Kitselas First Nation marine harvest and consumption
- 14 • Changes to Kitselas First Nation terrestrial harvest and consumption
- 15 • Changes to Kitselas First Nation governance and social and economic conditions
- 16 • Changes to Kitselas First Nation sacred places and heritage sites
- 17 • Changes to Kitselas First Nation health and well-being
- 18 • Changes to Kitselas First Nation access and travel

19 Kitselas First Nation identified five values that are connected to each of the potential effects, these
20 include history, future, lands, authority, and community (Kitselas First Nation 2023). Kitselas First Nation
21 provided a table of potential interactions between the Project activities and physical works and the five
22 values the Nation has identified (Kitselas First Nation 2023). Kitselas First Nation also identified Nation-
23 specific indicators for this assessment (Kitselas First Nation 2023); the indicators are included below in
24 Table 15.1–2, as applicable.

25 No additional interests or potential effects were recommended for this assessment by
26 Kitselas First Nation following provision of drafts of this section of the Application for review.

27 Potential effects on Kitselas First Nation interests may occur through multiple pathways including but
28 not limited to the following:

- 29 • Biophysical (e.g., effects to marine resources)
- 30 • Related to the ability to use and access lands and waters
- 31 • Cultural/experiential (e.g., presence of industrial activity disrupts peaceful enjoyment)
- 32 • Socio-economic (e.g., presence and demands of Project workforce)

1 This assessment uses a conservative approach that recognizes that an absence of information regarding
2 Kitselas First Nation interests does not necessarily represent an absence of the exercise or practice of an
3 Indigenous right. As such, this assessment assumes Kitselas First Nation interests have the potential to
4 occur on accessible lands and waters within Project assessment areas that overlap with the Nation’s
5 territory (as defined in Section 15.1.5). This assessment reflects the best available information regarding
6 Kitselas First Nation interests in relation to the Project and efforts to validate assessment assumptions
7 are described in Section 15.1.2.1.

8 Where possible, the assessment of potential effects on Kitselas First Nation’s interests considered
9 measurable parameters that are quantifiable (e.g., area of direct marine habitat loss). However, not all
10 effects pathways can be quantified (e.g., cultural/experiential). Therefore, some effects are predicted
11 qualitatively through use of feedback shared by Kitselas First Nation, the results of the assessments for
12 relevant VCs, and professional judgment. Finally, this assessment was shared in draft form with
13 Kitselas First Nation for review and comment. Feedback shared by Kitselas First Nation on the draft
14 assessment was incorporated, where noted.

15 The potential effects on Kitselas First Nation interests listed in Table 15.1–2 were identified through
16 ongoing consultation with Kitselas First Nation. For each effect in Table 15.1–2, effect pathways and
17 indicators/measurable parameters have been identified to facilitate the quantitative and/or qualitative
18 measurement of change in Project-specific and cumulative effects potentially caused by the Project.

Table 15.1–2 – Potential Effects, Effects Pathways and Indicators/Measurable Parameters for Kitselas First Nation Interests

Potential Effect	Effect Pathway	Indicator and/or Measurable Parameter(s) and Units of Measurement
<p>Changes to Kitselas First Nation marine harvest and consumption</p>	<ul style="list-style-type: none"> • Loss or alteration of preferred marine harvesting methods, locations, or opportunities (e.g., alteration to the cultural component of harvesting, interference with fishing equipment). • Loss of time when harvesting, including when harvesting for Elders or redistribution to other Kitselas First Nation members. • Loss or alteration of harvested marine species including culturally critical species (e.g., change in species population health, abundance, migration routes, distribution, morbidity, and mortality). • Alteration in marine species behaviour. • Alteration to the harvesting experience. • Alteration or reduction of subsistence-based livelihoods and trade networks with neighbouring Indigenous nations. • Alteration to the quality and quantity of marine species and country foods (real or perceived) (e.g., marine birds, marine fish). 	<ul style="list-style-type: none"> • Quantitative consideration of change in availability of habitat for harvested marine resources with qualitative consideration for indirect effects on habitat (e.g., changes in underwater noise and sensory disturbances, changes in light conditions, increased risk of species mortality or injury). • Quantitative consideration of change in water quality and quantity parameters (i.e., salinity, total suspended solids [mg/L], nutrients [nitrogen], hydrocarbon [from stormwater]). • Qualitative consideration of factors contributing to lost or altered access, opportunities, and quality of experience (e.g., sensory disturbance associated with marine vessel traffic, increased vessel traffic and type, changes in aesthetic qualities). • Qualitative consideration of estimated change in provision of food to Elders and hereditary leaders as well as feasting events. • Qualitative consideration of estimated change to status building activities such as in-community and external trade relationships with other Indigenous nations. • Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects on Kitselas First Nation sub-groups. • Other changes identified by Kitselas First Nation.

Table 15.1–2 – Potential Effects, Effects Pathways and Indicators/Measurable Parameters for Kitselas First Nation Interests

Potential Effect	Effect Pathway	Indicator and/or Measurable Parameter(s) and Units of Measurement
Changes to Kitselas First Nation terrestrial harvest and consumption	<ul style="list-style-type: none"> • Loss or alteration of preferred terrestrial harvesting methods, locations, or opportunities (e.g., alteration to the cultural component of harvesting, interference with traplines). • Loss of time when harvesting, including when harvesting for Elders or redistribution to other Kitselas First Nation members. • Loss or alteration of harvested terrestrial species including culturally critical species (e.g., change in species population health, abundance, migration routes, distribution, morbidity, and mortality). • Alteration to the harvesting experience. • Alteration or reduction of subsistence-based livelihoods and trade networks with neighbouring Indigenous nations. • Loss or alteration to the quality and quantity of country foods (real or perceived). 	<ul style="list-style-type: none"> • Quantitative consideration of change in availability of habitat for harvested terrestrial resources with qualitative consideration for indirect effects on habitat (e.g., changes in light conditions, increased risk of species mortality or injury). • Qualitative consideration of factors contributing to lost or altered access, opportunities, and quality of experience (e.g., increased highway traffic and type, changes in aesthetic qualities). • Qualitative consideration of estimated change in provision of food to Elders and hereditary leaders as well as feasting events. • Qualitative consideration of estimated change to status building activities such as in-community and external trade relationships with other Indigenous nations. • Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects on Kitselas First Nation sub-groups. • Other changes identified by Kitselas First Nation.
Changes to Kitselas First Nation governance, and social and economic conditions	<ul style="list-style-type: none"> • Alteration in the status and position of Hereditary leaders. • Loss or alteration in the production of foods from discrete house territories. • Loss or alteration in the ability to uphold Kitselas First Nation management principles and ability to make decisions regarding land and marine use. • Loss or alteration in infrastructure, services, accommodation, and transportation. • Loss or alteration in regional employment, business, and economy. 	<ul style="list-style-type: none"> • Qualitative consideration of available opportunities for Kitselas First Nation involvement in development decision making. • Qualitative consideration of change in the quality and quantity harvested resources at discrete house territories. • Qualitative consideration of access to and use of house territories. • Qualitative consideration of potential changes in level of feasting. • Qualitative consideration of reduction in rank of a house due to disruption of their house territory. • Qualitative consideration of estimated change to status building activities such as in-community and external trade relationships with other Indigenous nations.

Table 15.1–2 – Potential Effects, Effects Pathways and Indicators/Measurable Parameters for Kitselas First Nation Interests

Potential Effect	Effect Pathway	Indicator and/or Measurable Parameter(s) and Units of Measurement
		<ul style="list-style-type: none"> • Qualitative consideration of Nation members’ ability to access suitable accommodations, health care and social services, emergency services, travel (land, sea, air), employment opportunities, and training for youth and existing workforce. • Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects on Kitselas First Nation sub-groups. • Other changes identified by Kitselas First Nation.
Changes to Kitselas First Nation sacred places and heritage sites	<ul style="list-style-type: none"> • Loss or alteration of use or access or required conditions of sacred places and heritage sites. • Loss or alteration of ability to share Indigenous knowledge at sacred places and heritage sites. • Reduced quality of experience and increased avoidance due to sensory disturbance (e.g., qualitative disconnect due to changes in noise levels). • Loss or alteration of heritage sites. 	<ul style="list-style-type: none"> • Qualitative consideration of factors contributing to loss or altered access and opportunities (e.g., associated with marine vessel traffic, increased vessel traffic and type, changes in aesthetic qualities). • Quantitative consideration of affected heritage and cultural sites. • Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects on Kitselas First Nation sub-groups. • Other changes identified by Kitselas First Nation.
Changes to Kitselas First Nation health and well-being	<ul style="list-style-type: none"> • Alteration of Indigenous health conditions (e.g., psychological and physical) due to outside stressors and loss of culture. • Reduction or alteration of the quality and/or quantity of country foods. • Alteration to the safety of Nation members. • Reduction or alteration of community health and well-being. • Reduction or alteration of cultural practices tied to identity. • Reduction or alteration of community cohesion (i.e., alteration of sense of belonging and common identity, interpersonal and/or intergroup trust, norms of reciprocity, participation in community/cultural events, intergenerational 	<ul style="list-style-type: none"> • Qualitative consideration of Nation members ability to access suitable health care and/or emergency services. • Qualitative consideration of factors contributing to loss of area of Territory available for spiritual/cultural use (peaceful enjoyment). • Qualitative consideration of factors contributing to changes in human exposure to chemicals of potential concern, quality of country foods, noise level and electric and magnetic fields, and subsequent health effects. • Qualitative consideration of changes in community health and Nation members well-being due to changes to related interest (e.g., change in consumption and harvest, change in cultural identity, change in participation rate in physical/mental wellness programs and/or cultural events). • Qualitative consideration of changes to the right to maintain cultural distinctiveness and integrity.

Table 15.1–2 – Potential Effects, Effects Pathways and Indicators/Measurable Parameters for Kitselas First Nation Interests

Potential Effect	Effect Pathway	Indicator and/or Measurable Parameter(s) and Units of Measurement
	<p>solidarity and social networks of emotional, social and spiritual support).</p> <ul style="list-style-type: none"> Reduction of cultural transference opportunities in the territory (i.e., intergenerational knowledge transmission). 	<ul style="list-style-type: none"> Qualitative consideration of Kitselas First Nation conditions for connection to their territory. Qualitative consideration of change to community cohesion (e.g., alteration of sense of belonging and common identity, interpersonal and/or intergroup trust, norms of reciprocity, participation in community/cultural events, intergenerational solidarity and social networks of emotional, social and spiritual support). Qualitative consideration of estimated change to status building activities such as in-community and external trade relationships with other Indigenous nations. Qualitative consideration of changes to cultural practices such as traditional funerals, feasts, resource sharing, harvesting, and intergenerational knowledge transmission. Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects on Kitselas First Nation sub-groups. Qualitative consideration of change to community cohesion. Other changes identified by Kitselas First Nation.
<p>Changes to Kitselas First Nation access and travel</p>	<ul style="list-style-type: none"> Loss or alteration of access to preferred terrestrial harvesting locations and associated travel routes. Loss or alteration of access to preferred marine harvesting locations and associated travel routes. Loss or alteration of access to sacred places and heritage sites and associated travel route. Loss or alteration of access to regional infrastructure and services (e.g., health centers, shopping centers) and associated travel routes (marine and terrestrial). 	<ul style="list-style-type: none"> Qualitative consideration of factors contributing to loss or altered access to important cultural areas (e.g., sacred places, heritage sites, marine and terrestrial harvesting sites) and regional infrastructure and services (e.g., health centers, shopping centers). Qualitative consideration of factors contributing to loss or altered access to preferred travel routes on land and water (e.g., increased vessel traffic and type, increased highway traffic). Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects on Kitselas First Nation sub-groups. Other changes identified by Kitselas First Nation.

1 **15.1.5 Assessment Boundaries**

2 The spatial, temporal, administrative, and technical boundaries for the assessment of effects on
3 Kitselas First Nation interests are described below.

4 **15.1.5.1 Spatial Boundaries**

5 The assessment areas are defined by spatial boundaries that consider the geographic extent over which
6 Project activities may affect Kitselas First Nation’s interests and are illustrated in Figure 15.14–1 to
7 Figure 15.14–10.

8 The spatial boundaries for this assessment are based on the Project components and activities, which
9 include:

- 10 • **Project footprint:** the physical footprint for the Project (i.e., the areal extent of planned onshore
11 clearing and marine infrastructure development at the Project Site (**the Site**). The Project
12 footprint measures 43.6 hectares (**ha**), and encompasses terrestrial areas (34.9 ha), riparian
13 areas (7.9 ha), and intertidal areas (0.8 ha). The adjacent Water Lot measures approximately
14 96.4 ha. The Project footprint has been defined conservatively to encompass the maximum
15 extent for Project development for both land-based and marine-based Project infrastructure
16 and activities.
- 17 • **Marine shipping route (MSR):** the marine shipping route between Wil Milit and the BC Coast
18 Pilots boarding location at or near Triple Island Pilotage Station, and the materials and supply
19 shipping routes between Wil Milit and Prince Rupert and between Wil Milit and Gingolx.
- 20 • **Open Water Assessment Area (OWAA):** the open water marine shipping route between the
21 12 nm limit of Canada’s territorial sea and the BC Coast Pilots boarding location at or near Triple
22 Island Pilotage; as assessed for Air Quality (Section 7.02), Acoustic (Section 7.03), Wildlife and
23 Wildlife Habitat (Section 7.07), Marine Resources (Section 7.09), Marine Use (Section 7.11), and
24 Community Health and Wellness (Section 7.13). The OWAA includes the geographic extent over
25 which direct and indirect effects may be expected to occur, and the geographic extent over
26 which the predicted residual effects of the Project may act in combination with those of past,
27 present, and reasonably foreseeable future projects.

28 The spatial boundaries for the assessment of third-party infrastructure that may be developed in
29 relation to the Project include:

- 30 • **Transmission Line Assessment Area (TLAA):** the marine and/or terrestrial areas within which a
31 portion of the transmission line between the Project and Nisga’a Lands (as defined under the
32 Nisga’a Treaty) will be developed. A third-party will own, design, construct and operate the
33 transmission line. The transmission line within the TLAA will connect to the grid at a substation
34 in New Aiyansh. The TLAA encompasses portions of Nisga’a Category A Lands and the Nass Area.
35 As a specific route for the transmission line has not been developed, the TLAA encompasses a
36 broad area measuring approximately 36,400 ha, within which the route is anticipated to occur
37 (Figure 15.14–12).

1 The Project footprint, MSR, OWAA, and TLAA are located within or intersect Kitselas First Nation's
2 territory.

3 The assessment areas considered for the assessment of effects on Kitselas First Nation interests include:

- 4 • **Local assessment areas (LAAs):** the geographic extent over which direct (e.g., habitat loss) and
5 indirect (e.g., sensory disturbance) effects may reasonably be expected to occur. As the LAAs are
6 valued component (VC)-specific, the LAAs of VCs that overlap Kitselas First Nation's territory are
7 considered in turn throughout this assessment. All VC LAAs intersect with Kitselas First Nation
8 territory.
- 9 • **Regional assessment areas (RAAs):** the geographic extent over which the predicted residual
10 effects of the Project may act in combination with those of past, present and reasonably
11 foreseeable future projects. As the RAAs are VC-specific, the RAAs of VCs that overlap
12 Kitselas First Nation's territory are considered in turn throughout the assessment of cumulative
13 effects. All VC RAAs intersect with Kitselas First Nation territory.
- 14 • **Kitselas First Nation Territory:** includes the watersheds of the Skeena and Kitimat rivers from
15 Lorne Creek to the Skeena and Kitimat estuaries as well as the coastal waters from the southern
16 tip of Banks Island to the norther tip of Pearse Island (Figure 15.14–1).

17 Descriptions of each of the VC LAAs and RAAs are provided in Sections 7.02 to 7.15 of the Application.

18 **15.1.5.2 Temporal Boundaries**

19 Temporal boundaries identify when an effect is evaluated in relation to specific Project phases and
20 activities. Temporal boundaries are based on the timing and duration of Project activities and the nature
21 of the interactions with Kitselas First Nation's interests, where relevant. Temporal boundaries also
22 consider seasonal sensitivities, as applicable, (e.g., seasonal harvesting) associated with Project activities
23 within each Project phase.

24 The temporal boundaries for the assessment of effects on Kitselas First Nation interests are the same as
25 those described in Section 6.3.2:

- 26 • **Construction:** approximately three to four years, commencing following receipt of necessary
27 regulatory approvals and a final investment decision by the Proponents
- 28 • **Operation:** a minimum of 30 years following completion of construction
- 29 • **Decommissioning:** approximately 12 months following the end of operation

30 **15.1.5.3 Administrative and Technical Boundaries**

31 Kitselas First Nation administration, governance, and guardianship of its territory inform this
32 assessment. The Project footprint, MSR, and OWAA are located within Kitselas First Nation territory.

33 The Proponents are not aware of an existing Kitselas First Nation marine use plan. Kitselas Land and
34 Resources Department released the Kitselas Land Use Plan in 2019 (Kitselas First Nation 2019). The Land
35 Use Plan is a living document adopted by the Kitselas Chief and Council and was designed to include
36 input from Kitselas community members. The Land Use Plan provides regulations and processes for all

1 land use, site development and enforcement on Kitselas Reserve lands, and is an important document
2 guiding the development and implementation of the *Kitselas Reserve Lands Management Act*, future
3 Kitselas Zoning Laws and Subdivision, and Development and Servicing Law and Processes
4 (Kitselas First Nation 2020; Kitselas First Nation n.d.).

5 Section 15.1.5.1 further defines the way in which Project components and potential effects overlap with
6 Kitselas First Nation’s territory; in addition to the existing land use plan described above,
7 Kitselas First Nation’s administration, governance and guardianship of its territory are described in
8 Section 15.4 and inform this assessment.

9 **15.1.6 Project Interactions**

10 Table 15.1–3 identifies which Project components and physical activities have the potential to result in
11 effects on Kitselas First Nation interests. Interactions that have been identified (ranked as 1 or 2) are
12 carried forward and assessed within this section. Each of the effects identified are discussed in detail, in
13 the context of effects pathways, mitigation/enhancement, and residual effects.

14 The highest-ranking interaction was selected in cases where multiple valued components or potential
15 effects inform the Nation-specific assessment (e.g., change in marine habitat and changes due to
16 sensory disturbance, which both inform Kitselas First Nation’s harvest and consumption practices).
17 Ranking of interactions was further informed by input received from Kitselas First Nation.

18 Rationale for interactions ranked as 0 is provided following Table 15.1–3.

Table 15.1–3 – Potential Project Interactions and Effects on Kitselas First Nation Interests

Project Activities and Physical Works	Potential Project Effects					
	Changes to marine harvest and consumption	Changes to terrestrial harvest and consumption	Changes to governance and social and economic conditions	Changes to sacred places and heritage sites	Changes to health and well-being	Changes to access and travel
Construction						
Procurement of labour, goods, and services	1	1	1/+	1	1/+	1
Site preparation and clearing	1	1	1	1	1	1
Construction of temporary and permanent land-based infrastructure (includes transmission line within the TLAA)	1	1	1	1	1	1
Construction of temporary and permanent marine-based infrastructure (includes transmission line within the TLAA)	2	2	2	2	2	2
Marine transport of workforce, and construction materials to the Site	1	1	1	1	1	1

Table 15.1–3 – Potential Project Interactions and Effects on Kitselas First Nation Interests

Project Activities and Physical Works	Potential Project Effects					
	Changes to marine harvest and consumption	Changes to terrestrial harvest and consumption	Changes to governance and social and economic conditions	Changes to sacred places and heritage sites	Changes to health and well-being	Changes to access and travel
Land transportation of workforce and construction materials from Terrace to Gingolx or Prince Rupert/Port Edward (for marine transport to Site)	1	1	1	1	1	1
Waste management	1	1	1	1	1	1
Operation						
Procurement of labour, goods, and services	1	1	1/+	1	1/+	1
Natural gas pre-treatment, liquefaction, storage and offloading of LNG and NGL products (condensate) at the FLNG barges (includes storage of NGLs)	2	2	2	2	2	2
LNG carrier and NGL product vessel loading	1	1	1	1	1	1
Marine shipping and transportation (includes tugboat) to the Site	2	2	2	2	2	2
Land transportation of workforce to Gingolx (for marine transport to Site)	1	1	1	1	1	1
Facility and infrastructure maintenance (includes transmission line within the TLAA)	1	1	1	1	1	1
Waste management	2	2	2	2	2	2
Temporary on-Site power generation on barges	2	2	2	2	2	2
Decommissioning						
Procurement of labour, goods and services	1	1	1/+	1	1/+	1
Decommissioning or re-purposing of land-based infrastructure (includes transmission line within the TLAA)	1	1	1	1	1	1
Decommissioning of marine-based infrastructure (includes transmission line within the TLAA)	1	1	1	1	1	1
Land transportation of workforce to Gingolx (for marine transport to Site)	1	1	1	1	1	1
Marine transport of decommissioned infrastructure	1	1	1	1	1	1
Waste management	1	1	1	1	1	1

Table 15.1–3 – Potential Project Interactions and Effects on Kitselas First Nation Interests

Project Activities and Physical Works	Potential Project Effects					
	Changes to marine harvest and consumption	Changes to terrestrial harvest and consumption	Changes to governance and social and economic conditions	Changes to sacred places and heritage sites	Changes to health and well-being	Changes to access and travel

Key:

0 = Negligible or no effect expected; no further consideration warranted.

1 = Potential adverse effect that warrants consideration, and requires mitigation through current legal or policy management, best management practice(s) and/or Project-specific mitigation.

2 = Potential adverse effect of particular importance or concern that warrants further detailed assessment.

+ = Potential positive effect that can be enhanced; warrants further consideration.

- 1
- 2 **15.1.7 Residual Effects Characterization**
- 3 Each residual effect on Kitselas First Nation’s interests is characterized using the following
- 4 characterization terms: magnitude, geographic extent, timing, duration, reversibility, frequency,
- 5 affected sub-population, risk (likelihood and consequence). The definitions for these terms as they
- 6 relate to this assessment are provided in Table 15.1–4.

Table 15.1–4 – Characterization of Residual Effects on Kitselas First Nation Interests

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Magnitude	The amount of change in measurable parameters or the ability to exercise or practice rights / maintain the interest, relative to existing conditions.	<p>No Measurable Change – no measurable change.</p> <p>Low –effect may increase the effort necessary but will not reduce the ability to exercise or practice rights / maintain the interest</p> <p>Moderate –effect may reduce but not eliminate the ability to exercise or practice rights / maintain the interest</p> <p>High – effect will greatly reduce or eliminate the ability to exercise or practice rights / maintain the interest</p>
Geographic Extent	The geographic area in which a residual effect occurs.	<p>Project footprint – residual effects are restricted to the Project footprint.</p> <p>OWAA – residual effects are restricted to the OWAA.</p> <p>LAAs – residual effects extend into the LAAs.</p> <p>RAAs – residual effects extend into the RAAs.</p> <p>MSR – residual effects extend into the MSR.</p> <p>Beyond Regional – residual effects extend beyond the VC RAAs but within or beyond Kitselas First Nation territory.</p>

Table 15.1–4 – Characterization of Residual Effects on Kitselas First Nation Interests

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Timing	Considers when the residual environmental effect is expected to occur. Timing considerations are noted in the evaluation of the residual environmental effect on Indigenous interests, where applicable or relevant.	<p>Not Applicable – seasonal aspects are unlikely to affect residual effects on Kitselas First Nation interests.</p> <p>Applicable – seasonal aspects may affect residual effect on Kitselas First Nation interests.</p>
Duration	The length of time the residual effect is expected to persist or be experienced by Kitselas First Nation.	<p>Short-term – the residual effect is restricted to the construction phase (3 to 4 years), or decommissioning phase (12 months).</p> <p>Medium-term –the residual effect extends beyond the construction or decommission phases but is less than the timespan of a single human generation (25 years¹).</p> <p>Long-term – the residual effect extends beyond the timespan of a single human generation (>25 years) and the operation phase (30 years).</p>
Reversibility	Pertains to whether or not the residual effect on the Indigenous interest can return to its existing condition after the Project activity ceases.	<p>Reversible – the residual effect is likely to be reversed after activity completion and reclamation.</p> <p>Partially reversible – the residual effect can be partially reversed after activity completion and reclamation.</p> <p>Irreversible – the residual effect is unlikely to be reversed after activity completion and reclamation.</p>
Frequency	How often the residual effect occurs and how often during the Project or in a specific phase.	<p>Single event - effect occurs once.</p> <p>Multiple irregular event – occurs at no set schedule.</p> <p>Multiple regular event – occurs at regular intervals.</p> <p>Continuous – occurs continuously.</p>
Affected Sub-Populations (where appropriate)	The distribution of the effect amongst the Kitselas First Nation population.	<p>Evenly distributed – the effect will be experienced by any or all Kitselas subpopulations.</p> <p>Disproportionally distributed – the effect will be experienced only by certain Kitselas subpopulations or experienced more acutely by certain Kitselas subpopulations.</p>

Table 15.1–4 – Characterization of Residual Effects on Kitselas First Nation Interests

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories																						
Risk (likelihood and consequences)	<p>Assesses the likelihood and consequences of the potential residual effect. Likelihood is the probability of the residual effect occurring and should consider many factors. Consequence is the potential outcome of the residual effect.</p> <p>Risk is the interaction between likelihood and consequence (see risk rating table).</p>	<p>Consequences: are assessed as minor, moderate, or major based primarily on a combination of Magnitude and Geographic Extent as:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" rowspan="2"></th> <th colspan="2" style="text-align: center;">Geographic Extent*</th> </tr> <tr> <th style="text-align: center;">Project Footprint or LAA (if different from RAA)</th> <th style="text-align: center;">RAA and/or OWAA</th> </tr> </thead> <tbody> <tr> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;">Magnitude</td> <td style="text-align: center;">No Measurable Change</td> <td style="text-align: center;">Minor</td> <td style="text-align: center;">Minor</td> </tr> <tr> <td style="text-align: center;">Low</td> <td style="text-align: center;">Minor</td> <td style="text-align: center;">Minor or Moderate</td> </tr> <tr> <td style="text-align: center;">Moderate</td> <td style="text-align: center;">Minor or Moderate</td> <td style="text-align: center;">Moderate</td> </tr> <tr> <td style="text-align: center;">High</td> <td style="text-align: center;">Moderate or Major</td> <td style="text-align: center;">Major</td> </tr> </tbody> </table> <p>*Where relevant, Duration is also taken into consideration (e.g., a high Magnitude event within the LAA may be Moderate or Major in Consequence and Duration could be considered)</p>						Geographic Extent*		Project Footprint or LAA (if different from RAA)	RAA and/or OWAA	Magnitude	No Measurable Change	Minor	Minor	Low	Minor	Minor or Moderate	Moderate	Minor or Moderate	Moderate	High	Moderate or Major	Major
				Geographic Extent*																				
Project Footprint or LAA (if different from RAA)	RAA and/or OWAA																							
Magnitude	No Measurable Change	Minor	Minor																					
	Low	Minor	Minor or Moderate																					
	Moderate	Minor or Moderate	Moderate																					
	High	Moderate or Major	Major																					
<p>Likelihood: as defined in the Risk table below</p> <p>Risk:</p> <p>Low: Low risk/uncertainty of effect prediction</p> <p>Moderate: Moderate risk/uncertainty of impact prediction</p> <p>High: High risk/uncertainty of impact prediction</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" rowspan="2"></th> <th colspan="3" style="text-align: center;">Consequence</th> </tr> <tr> <th style="text-align: center;">Major</th> <th style="text-align: center;">Moderate</th> <th style="text-align: center;">Minor</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;">Likelihood</td> <td style="text-align: center;">High (>80% chance)</td> <td style="text-align: center;">High</td> <td style="text-align: center;">Moderate</td> <td style="text-align: center;">Low</td> </tr> <tr> <td style="text-align: center;">Medium (40-80% chance)</td> <td style="text-align: center;">High</td> <td style="text-align: center;">Moderate</td> <td style="text-align: center;">Low</td> </tr> <tr> <td style="text-align: center;">Low (<40% chance)</td> <td style="text-align: center;">Moderate</td> <td style="text-align: center;">Low</td> <td style="text-align: center;">Low</td> </tr> </tbody> </table>						Consequence			Major	Moderate	Minor	Likelihood	High (>80% chance)	High	Moderate	Low	Medium (40-80% chance)	High	Moderate	Low	Low (<40% chance)	Moderate	Low	Low
		Consequence																						
		Major	Moderate	Minor																				
Likelihood	High (>80% chance)	High	Moderate	Low																				
	Medium (40-80% chance)	High	Moderate	Low																				
	Low (<40% chance)	Moderate	Low	Low																				

Table 15.1–4 – Characterization of Residual Effects on Kitselas First Nation Interests

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Uncertainty	The degree of uncertainty as assessed for the data and methods including potential effectiveness of mitigation that have been used in the assessment of effects.	<p>Low – good understanding of the pathway to effect(s) on the Indigenous interest due to the Project activities and/or physical works and sufficient data is available to support the assessment. Uncertainty associated with data and/or modelling is low. The effectiveness of the selected mitigation is expected to be moderate to high. Overall, uncertainty in the predicted residual effect is low.</p> <p>Moderate – potential uncertainty associated with the pathway to effect(s) on the Indigenous interest due to the Project activities and/or physical works, e.g., due to unknown external variables or incomplete data. Potential for uncertainty associated with data and/or modelling. The effectiveness of mitigation is expected to be moderate to low. Uncertainty in the predicted residual effect is considered moderate.</p> <p>High – poor understanding of the pathway to effect(s) on the Indigenous interest due to the Project activities and/or physical works. May be unknown external variables and/or data for the Project is incomplete. Modelling results may vary considerably with inputs. The effectiveness of the mitigation may be expected to be low or is unproven. Overall, there is a high degree of uncertainty associated with the predicted residual effect.</p>

NOTE:

1 “Twenty-five years” is representative of a single generation as established by environmental assessments
 2 conducted for comparable projects on the North Coast and based on the Proponent’s understanding that
 3 Indigenous knowledge and associated customs, traditions, practices, or locales, can be displaced from collective
 4 memory if transmission of knowledge, or the ability to engage in associated cultural activities, are disrupted
 5 beyond a single generation’s time.
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15.1.7.1 Context and Resilience

The characterization of residual Project effects inherently considers the effects of past and present projects and activities, and potential trends in the condition of the Interest, as applicable. Literature reviewed, and feedback received from Kitselas First Nation describes historical, ongoing, and future development as modifications to the existing conditions of their Interests.

Resilience is notionally understood as the ability of a receptor to recover from or adapt to a change in its environment, real or perceived. The degree of resilience may be measured or characterized for species or ecosystems relied upon by Indigenous peoples for the exercise of their rights, traditional activities, and practices. Such characterization may be relevant and incorporated into this assessment, where noted, given the interdependence of community health, well-being and culture and the health and

1 availability of the land and water. However, the ability of Indigenous peoples to recover from or adapt
2 to environmental effects of the Project remains contingent on personal, cultural, esthetic, or spiritual
3 values that are subjective and cannot be meaningfully reduced to environmental assessment criteria.
4 When applied to human receptors, resilience in this sense, or as a concept overall, is viewed as uniquely
5 personal as it is informed by an individual's lived experience, individually and/or collectively in social and
6 community groups. It would not be appropriate given the subjective and complex nature of these
7 considerations for anyone but the affected party to characterize resilience. As such, the "context" or
8 "resilience" criterion is not carried forward for the assessment of Project effects on the collectively held
9 rights and interests of Kitselas First Nation.

10 The more commonly understood and accepted criteria defined for this assessment, including:
11 (1) consideration for disproportionate effects on vulnerable populations, (2) Kitselas First Nation views
12 regarding existing environmental, social or economic barriers, and (3) Kitselas First Nation preferred
13 conditions required to maintain or enhance their rights and Interests, are viewed as sufficient to assist
14 the BC EAO in determining the overall seriousness of the Project effects on Kitselas First Nation
15 Interests.

16 **15.1.7.2 Transmission Line Assessment Approach**

17 As described in Section 15.1.5.1, a third-party will own, design, construct and operate the transmission
18 line that is proposed within the TLAA, a portion of which will support the electrification of the Project.
19 The third-party will be responsible for route selection and siting the proposed transmission line within
20 the TLAA (Figure 15.14–12).

21 A high voltage (287 kV) electrical cable will be installed within the TLAA to distribute power to smaller
22 substations, the FLNGs, and the plant buildings at the marine terminal location. While the transmission
23 line route is not currently known, for the purposes of this assessment, the TLAA encompasses a broad
24 area measuring approximately 36,400 ha and represents the area within which the transmission line is
25 expected to be installed (Figure 15.14–12). Preliminary transmission line scenarios, including aerial and
26 submarine options, with segments of variable lengths have been identified as potential routes; however,
27 final route selection will be the responsibility of the third-party owner. Installation methods associated
28 with submarine route scenarios include the potential for areas of transmission line burial as well as
29 areas of surface-lay on the seabed. The decommissioning plan is not currently known, so for the
30 purposes of this assessment, two scenarios have been considered: removal or abandonment in place.

31 As described in Section 15.1.3, this assessment assumes that Indigenous and traditional use sites,
32 activities and resources have the potential to occur on accessible land and waters within a Nation's
33 territory and that Indigenous or traditional use species present within the TLAA could be hunted,
34 trapped, fished, or gathered by Indigenous nations, even if Indigenous nations did not identify specific
35 sites, areas or resources in relation to the TLAA.

36 Potential adverse residual effects identified within this assessment area in relation to the development
37 of the proposed transmission line are not characterized. The potential effects associated with the
38 construction, operation, and decommissioning of the portion of the transmission line within the TLAA

1 are however considered in Section 15.8.2. Potential effects, effects pathways, and indicators /
2 measurable parameters considered for the TLAA are the same as those identified in Table 15.1–2.

3 **15.1.8 Mitigation Measures**

4 Mitigation and enhancement measures described throughout this Application are proposed to reduce
5 adverse residual effects and enhance positive effects on Kitselas First Nation interests, as applicable, and
6 are discussed relative to specific potential effects for each of the identified Indigenous interests in
7 Sections 15.2 to 15.7. These sections also describe:

- 8 • The criteria or rationale used to determine technically and economically feasible mitigation
9 measures
- 10 • Additional accommodation, mitigations, complementary and enhancement measures that are
11 specific to Kitselas First Nation interests, as applicable
- 12 • The relative level of uncertainty, effectiveness, or risk associated with the accommodation,
13 mitigation and complementary options
- 14 • An assessment of the effectiveness of the mitigation measures and adaptive management
15 measures applied to mitigate the residual effects and cumulative effects
- 16 • In cases where measures to mitigate these effects are beyond the control of the Proponents,
17 what parties have authority to act on the measures and commitments made by the other parties
18 regarding the implementation of necessary measures and any associated communication plans
- 19 • A discussion of potential regional implications of applying Project-specific mitigation and
20 enhancement measures (e.g., interactions with initiatives of other projects), taking into account
21 any reasonably foreseeable development in the area
- 22 • How the measures will be integrated into the Project design, if applicable
- 23 • How the GBA Plus results on disproportionate effects specific to Kitselas First Nation, as
24 described in Section 7.13 Community Health and Wellness, have been used to inform these
25 measures

26 Mitigation measures were selected based on:

- 27 • their effectiveness to limit Project interactions that affect Kitselas First Nation interests during
28 all Project phases
- 29 • technical and economic feasibility
- 30 • their inclusion on similar projects proposed for the Pacific North Coast
- 31 • the views of Kitselas First Nation regarding mitigation appropriateness
- 32 • and the professional judgment of the effects assessment team

33 A summary of mitigation or enhancement measures, review processes or monitoring initiatives for
34 Kitselas First Nation interests is described in Sections 15.2 to 15.7.

1 **15.1.9 Assessment of Residual Adverse Effects**

2 The assessment of residual effects is described for each of the identified Indigenous interests in
3 Sections 15.2 to 15.7. This evaluation focuses on the effect pathways listed in Section 15.1.4 and
4 characterizes residual effects according to the approach described in Section 15.1.7. A summary of the
5 assessment of adverse residual effects is described in Section 15.8.

6 Residual effects on aspects of Kitselas First Nation interests identified for assessment have been
7 conservatively overestimated with consideration for the interconnectedness of the effect pathways that
8 inform Kitselas First Nation interests. The analysis in Sections 15.2 to 15.7 incorporates the findings of
9 relevant valued components however potential effects may not fully align with effects on
10 Kitselas First Nation interests. This is considered when evaluating the need for additional mitigation,
11 enhancement measures, review processes or monitoring initiatives that are specific to
12 Kitselas First Nation interests. This is considered when evaluating the need for additional mitigation and
13 enhancement measures, review processes, or monitoring initiatives that are specific to
14 Kitselas First Nation interests.

15 **15.1.10 Assessment of Positive Residual Effects**

16 The assessment of any positive residual effects to Kitselas First Nation interests, where anticipated
17 because of the Project and its associated effects management approaches, is provided in Section 15.9.

18 **15.1.11 Assessment of Cumulative Effects**

19 The assessment of cumulative effects is initiated when the following two conditions are met:

- 20
- 21 • The Project is assessed as having residual effects on the Indigenous interest
 - 22 • Residual effects could act cumulatively with residual effects of other past, present, or
23 reasonably foreseeable future physical activities

24 If neither condition is met, the assessment of cumulative effects concludes with a statement that further
25 assessment of cumulative effects is not warranted because the Project does not interact cumulatively
26 with other projects or activities.

27 When both conditions are met, the Application identifies the Project residual effects likely to interact
28 cumulatively with the residual effects of other projects or physical activities.

29 The assessment of the Project's contribution to cumulative effects on Kitselas First Nation interests and
30 the identification of any additional mitigation measures is described for the identified Indigenous
31 interests in Section 15.10 (Cumulative Effects Assessment). The assessment of cumulative effects
32 includes:

- 33 • Background and context, including how the identified Indigenous interests have been affected
by cumulative effects to date

- 1 • A description of the Project’s residual effects on Kitselas First Nation interests that are likely to
2 interact cumulatively with residual effects of past, present, or reasonably foreseeable projects
3 and physical activities
- 4 • An assessment of the likelihood of any adverse residual cumulative effects on the Indigenous
5 interests

6 A summary of the results of the cumulative effects assessment is described in Section 15.11.

7 **15.2 Changes to Kitselas First Nation Marine Harvest and Consumption**

8 This section provides the assessment of potential Project effects on Kitselas First Nation marine harvest
9 and consumption.

10 **15.2.1 Background and Existing Conditions**

11 Kitselas First Nation has occupied their territory for approximately 10,000 years and continue to harvest
12 and fish marine resources along the north coast and northwest river systems for consumption,
13 economic, subsistence, trade and other purposes (Kitselas First Nation n.d.; Kitselas First Nation 2022c).
14 Over generations Kitselas First Nation developed traditional economies and harvesting patterns which
15 they refer to as their seasonal round (Kitselas First Nation 2022c). Their seasonal round is based on the
16 seasonal availability of resources throughout their territory (Kitselas First Nation 2022c). The seasonal
17 round is founded on the generational accumulation of Indigenous knowledge obtained by intimate
18 relationships and direct observation and interaction with the local surrounding environments, including
19 weather, tides, and conditions of water necessary for navigation and fishing (Cedar 2022). This
20 knowledge is shared among Kitselas families or house groups (*wilp*), who inherit the rights to harvest
21 and care for discrete traditional harvesting areas and the knowledge, histories, and protocols associated
22 with them (Cedar 2022). Species that are commonly harvested during the seasonal round include
23 abalone, clams, cockles, crabs, flounder, halibut, herring, herring eggs, lingcod, octopus, oolichan,
24 prawns, rockfish, species of salmon (coho, pink sockeye, spring and chum), seaweed, sea cucumbers, sea
25 urchin, seals, sealions as well as marine birds such as black ducks, mallards, and seagull eggs
26 (Kitselas First Nation 2022a, 2022c).

27 Kitselas First Nation members most commonly fish and harvest marine species for commercial and
28 personal consumption along the outer coast in areas that overlap established MSRs (Kitselas First Nation
29 2022c). Important marine harvesting areas identified by Kitselas First Nation include the Anger Island,
30 north side of Campania Island, the east side of Banks Island, Browning Entrance, Ferrant Island,
31 Gill Island, Goschen Island, Gurd Island, Lelu Island, McCauley Island, Nepean Sound, Otter Channel, the
32 west side of Pitt Island, Porcher Island, the Principe Channel, the west side of Stephens Island, and the
33 Triple Islands (Kitselas First Nation 2022c). Key harvesting areas that may be affected by Project-related
34 vessel traffic include Chatham Sound, the outer coastal waters between Dundas Island and the
35 Tsimpsean Peninsula located southwest of the Project location, and transportation routes in and around
36 Pearse Island (Kitselas First Nation 2022c).

1 Kitselas First Nation reported that many Kitselas community members no longer have the capacity to
2 engage in extensive coastal resource harvesting due to financial and regulatory barriers
3 (Kitselas First Nation 2022c). Although sites within the house territories that were traditionally accessed
4 during the seasonal round are still known, many sites are inaccessible due to changes in access and the
5 environment (Kitselas First Nation 2022a). For example, Kitselas First Nation reported that the number,
6 location, and availability of sites and areas used as part of the seasonal round have changed over time as
7 a result of government regulation, land alienation due to settlement or industrial activities, harvesting
8 by non-Kitselas people, pollution and climate (Kitselas First Nation 2022c).

9 Through Project engagement, Kitselas First Nation noted the importance of marine food and material
10 resources, as they are vital for their cultural identity, and the social, economic, and cultural relationships
11 of Kitselas people (Kitselas First Nation 2022c). Marine food and resources are harvested for home
12 consumption, processing, distribution to family, community members in need and Elders and are also
13 shared at community events or traded with other Indigenous groups in the region (Kitselas First Nation
14 2022c). Kitselas First Nation expressed concern that Project development and associated marine
15 shipping traffic will impact the marine resources they harvest (Kitselas First Nation 2022c).
16 Kitselas First Nation has also expressed the importance of maintaining Kitselas members ability to
17 harvest marine resources that are free of pollution and in the quality and quantities needed, noting that
18 many Kitselas members now must travel further for resources (Kitselas First Nation 2022a; 2022c). In
19 addition, Kitselas First Nation is concerned about its members safety and feelings of safety while on the
20 water, engaging in coastal shoreline fishing or intertidal harvesting due to vessel traffic and perceptions
21 of potential interactions with wake waves (Kitselas First Nation 2022a).

22 **15.2.2 Project Pathways**

23 All phases of the Project (construction, operation, decommissioning) have the potential to affect
24 Kitselas First Nation marine harvest and consumption. Changes to Kitselas First Nation marine harvest
25 and consumption could result through the pathways identified in Table 15.1–2 in Section 15.1.4.

26 The conclusions in this section are informed by the results of engagement with Kitselas First Nation,
27 the literature review, and related biophysical VC assessments presented in the Application.

28 **15.2.3 Mitigation and Enhancement Measures**

29 Mitigation measures were selected based on the considerations described in Section 15.1.8 and are
30 intended to be implemented in combination with Project design considerations and measures to
31 mitigate and enhance potential effects of the Project on environmental resources and conditions that
32 support Kitselas First Nation marine harvest and consumption. A complete listing of measures can be
33 found in Appendix A and additional details can be found in the following VC Sections:

- 34 • Air Quality (Section 7.02)
- 35 • Acoustic (Section 7.03)
- 36 • Wildlife and Wildlife Habitat (Section 7.07)
- 37 • Marine Resources (Section 7.09)

- 1 • Marine Use (Section 7.11)
- 2 • Human Health (Section 7.14)

3 Table 15.2–1 provides the additional mitigation and enhancement measures to avoid or reduce impacts
 4 to Kitselas First Nation interests, including marine harvest and consumption. In conjunction with these
 5 measures, the Proponents will develop and implement a Project-specific construction environmental
 6 management plan that describes the mitigation and enhancement measures tied to Project-related
 7 activities and physical works associated with construction. The construction environmental management
 8 plan will be incorporated into appropriate construction-related contracts.

9 **Table 15.2–1 – Mitigation and Enhancement Measures Proposed to Avoid or Reduce Potential Effects**
 10 **on Kitselas First Nation Interests**

Mitigation/Mitigation Mechanism	Rationale for Selection	Expected Success/Risks and Uncertainty	Timing and Effectiveness	Management and/or Compensation Plans
<p>Mitigation IN-1: The Proponents will continue to work with Kitselas First Nation to develop a shared understanding of how the Project may affect their Indigenous interests.</p> <p>The Proponents will continue to engage with Kitselas First Nation to discuss the Project and its effects, understand concerns that may arise and respond to those concerns.</p> <p>Mechanism:</p> <p>The Proponents will continue to work with Kitselas First Nation to explore opportunities to further mitigate adverse effects to Kitselas First Nation’s interests and enhance Project benefits.</p> <p>Through ongoing engagement (i.e., throughout the life of the Project) and in development of the Social and Economic Effects Management Plan, the Proponents aim to maintain a positive long-term relationship with Kitselas First Nation.</p>	<p>This measure was selected based on its effectiveness to mitigate potential changes in health, technical and economic feasibility, its inclusion as mitigation measures in similar projects proposed for the Pacific North Coast, the views of Kitselas First Nation regarding mitigation appropriateness, and professional judgment of the effects assessment team.</p>	<p>Expected Success:</p> <p>The success of this measure is contingent upon Kitselas First Nation willingness to engage with the Proponents, Kitselas First Nation’s specific communication protocol needs, and implementation of additional public notices.</p> <p>Risk and Uncertainty:</p> <p>Low.</p>	<p>Project Phase:</p> <p>All phases</p> <p>Effectiveness:</p> <p>This mitigation measure is effective in the long-term.</p>	<p>Indigenous Engagement and Collaboration Plan</p> <p>construction environmental management plan</p> <p>health and medical services plan</p> <p>social and economic effects management plan</p>

1 **15.2.4 Project Residual Effect**

2 During the construction phase, two FLNG barges will be towed through the OWAA and MSR for
3 installation at the Project footprint. During the decommissioning phase, the FLNG barges will either be
4 moved to a Canadian shipyard or a foreign shipyard for re-furbishing or salvage. If the FLNG barges are
5 destined for a Canadian shipyard, they would be towed through the MSR and south along the coast of
6 BC during the decommissioning phase. If the FLNG barges are destined for a foreign shipyard, they
7 would be towed through the MSR and the OWAA during the decommissioning phase. FLNG barge
8 transits through the MSR and OWAA during the construction phase and the decommissioning phase
9 represent single events.

10 The Project is not predicted to result in a change in the quality of country foods harvested within the
11 Human Health LAA, the MSR, the OWAA, and the Project footprint during the operation phase; all
12 exposure pathways for country foods are inoperable (Section 7.14). Residual effects on air quality are
13 predicted within the Air Quality LAA, the Project footprint, and along the OWAA and MSR during the
14 operation phase, however, the predicted criteria air contaminants are less than the applicable
15 regulatory criteria at all receptors in the vicinity of the Project footprint, including sensitive receptors
16 (i.e., vegetation, aquatic ecosystems, human health) (Sections 7.02 and 7.14). Along the Air Quality LAA,
17 the MSR and the OWAA, emission concentrations do not persist in one location due to the transient
18 nature of the LNG carrier and tugboat, and concentrations decrease rapidly with increasing distance
19 from the sources (Sections 7.02 and 7.14). Noise levels will increase during the operation phase within
20 the Acoustic LAA, the Project footprint, the MSR and OWAA but will comply with federal and provincial
21 noise guidance at most receptors (Sections 7.03 and 7.14). Sensory disturbances (including perceived
22 change in air quality and noise levels) may result in an alteration to Kitselas First Nation harvesting
23 experience and associated activities during the operation phase.

24 Project construction will result in a direct habitat loss or alteration of marine bird habitat throughout the
25 Project footprint due to vegetation clearing and Site preparation activities (Section 7.07).
26 Underwater noise will also be emitted into the marine environment at the Project footprint
27 (e.g., through pile installation, infilling, idling vessels) during the construction phase (Section 7.09).
28 Construction activities at the Project footprint will affect the behaviour and movements of
29 Kitselas First Nation culturally important wildlife (e.g., marine birds), fish (e.g., Pacific herring; eulachon),
30 and marine mammals (e.g., baleen whales, sea lions) (Sections 7.07 and 7.09).

31 During the operation phase, approximately 140 to 160 Project-related LNG carriers and 8 to 12 NGL
32 product vessels travelling at speeds of 12 to 19 knots/hour will transit the OWAA and MSR. An LNG
33 carrier will therefore transit the OWAA and MSR approximately every 2.3 days during the operation
34 phase (30 years). The Project is not predicted to result in a change in the quality of country foods
35 harvested within the Human Health LAA, the MSR, the OWAA, and the Project footprint during the
36 operation phase; all exposure pathways for country foods are inoperable (Section 7.14). Residual effects
37 on air quality are predicted within the Air Quality LAA, the Project footprint, the OWAA and the MSR
38 during the operation phase, however, the predicted criteria air contaminants are less than the

1 applicable regulatory criteria at all receptors in the vicinity of the Project footprint, including sensitive
2 receptors (i.e., vegetation, aquatic ecosystems, human health) (Sections 7.02 and 7.14). Along the
3 Air Quality LAA, the MSR and the OWAA, emission concentrations do not persist in one location due to
4 the transient nature of the LNG carrier and tugboat, and concentrations decrease rapidly with increasing
5 distance from the LNG carrier and tugboat emission sources (Sections 7.02 and 7.14). Noise levels will
6 increase during the operation phase within the Acoustic LAA, the Project footprint and along the MSR
7 and OWAA but will comply with federal and provincial noise guidance at most receptors (Sections 7.03
8 and 7.14). Sensory disturbances (change in air quality and noise levels) may result in an alteration to
9 Kitselas First Nation harvesting experience during the operation phase.

10 During the operation phase, an indirect loss or alteration of marine bird habitat within the Wildlife and
11 Wildlife Habitat LAA and the Project footprint will occur due to sensory disturbance (i.e., reduced
12 habitat effectiveness) (Section 7.07). Physical and sensory barriers may present semi-permeable barriers
13 that can result in temporary local shifts in marine bird distributions in the vicinity of the Project
14 footprint, but the sustainability of regional marine bird populations is not expected to be adversely
15 affected (Section 7.07). Project activities (shipping and activities at the Project footprint) may increase
16 marine bird mortality risk and some mortality events may be unavoidable, but the sustainability of
17 regional marine bird populations harvested and consumed by Kitselas First Nation is not expected to be
18 adversely affected (Section 7.07).

19 Marine shipping activities during the operation phase may adversely affect Kitselas First Nation marine
20 consumption and harvest by altering the abundance and distribution of fish and marine mammals within
21 the Marine Resources LAA, the OWAA, the MSR and in the vicinity of the Project footprint (Section 7.09).
22 Vessel wakes produced during operation will result in increased wave activity throughout the Marine
23 Resources LAA, the OWAA and MSR, however they are not expected to result in additional shoreline
24 erosion, degradation of marine vegetation or meaningful increases to total suspended solids (TSS) when
25 compared to natural wave action in the area (Section 7.09). Underwater noise will be emitted into the
26 marine environment within the Marine Resources LAA, the Project footprint (e.g., seawater intakes) and
27 along the MSR and OWAA (e.g., LNG carrier and tugboats underway) during the operation phase,
28 however, noise is not expected to exceed the threshold of injury for species of cultural importance to
29 Kitselas First Nation (Section 7.09).

30 The Project is not expected to result in residual effects that may adversely affect the long-term
31 persistence of any marine population harvested and consumed by Kitselas First Nation. A measurable
32 change in the productivity of relevant fish, invertebrate, marine mammal, or sea turtle populations is
33 not predicted within the Marine Resources LAA, the OWAA, the MSR and the Project footprint
34 (Section 7.09). Population wide effects to any culturally important marine mammal species caused by
35 vessel strikes are not anticipated (Section 7.09). During all Project phases, Project activities may increase
36 mortality risk for marine birds and some mortality events may be unavoidable, but the sustainability of
37 regional populations within the Marine Resources LAA, the OWAA, the MSR and in the vicinity of the
38 Project footprint are not expected to be adversely affected (Section 7.07).

1 A measurable change in Kitselas First Nation marine access along the OWAA, the MSR and in the vicinity
2 of the Project footprint is predicted to occur during the operation phase due to the increase in marine
3 shipping activity, however, as the Project is expected to comply with existing marine use plans and
4 participate in federal initiatives and requirements (e.g., development and implementation of
5 recommendations from a Navigational Safety Assessment), it is not expected to create a change or
6 disruption that widely reduces or restricts Kitselas First Nation present marine access and use activities
7 to a point where they cannot continue at current activity levels (Section 7.11). Marine navigation is
8 unlikely to be affected as the waters of the Marine Resources LAA, the OWAA and MSR are open and
9 not confined by geography, allowing adequate space for Kitselas First Nation marine users to navigate.

10 With the implementation of mitigation measures outlined in Table 15.2–1 and Appendix A, residual
11 effects on Kitselas First Nation interests related to marine harvest and consumption during all Project
12 phases are anticipated to be moderate in magnitude within applicable VC LAAs, the OWAA, the MSR and
13 the Project footprint, inclusive of timing considerations due to the seasonal movements of migratory
14 species. Residual effects are short-term during the construction and decommissioning phases and will
15 occur as multiple irregular events. Residual effects are long-term (lasting for longer than one generation
16 [25 years]) during the operation phase and will occur as multiple regular events. However, residual
17 effects are considered reversible during all phases as they are primarily tied to marine shipping; the
18 effects cease once the FLNG barges, LNG Carriers, tugs, and crew vessels pass through the applicable
19 VC LAAs, the MSR and OWAA, and noise levels and air quality will return to current conditions once
20 Project activities cease. The risk of a residual effect on Kitselas First Nation marine harvest and
21 consumption is moderate (moderate consequence, high likelihood) during all phases, with moderate
22 uncertainty due to unknown external variables. The LNG carriers, tugs, and crew vessels will transit an
23 established shipping route where marine and other cultural activities will be able to safely continue in a
24 manner that is generally consistent with existing conditions.

25 **15.3 Changes to Kitselas First Nation Terrestrial Harvest and Consumption**

26 This section provides the assessment of potential Project effects on Kitselas First Nation terrestrial
27 harvest and consumption.

28 **15.3.1 Background and Existing Conditions**

29 Kitselas First Nation traditionally moved throughout their territory to harvest a vast array of plant,
30 animal, and fish resources during their seasonal round (Kitselas First Nation 2022c). Harvesting for food
31 and cultural purposes continues to be significant to Kitselas First Nation members today
32 (Kitselas First Nation 2022c). Hunting contributes a significant amount of food for Kitselas First Nation
33 diet (Kitselas First Nation 2022c). Trapping of fur bearers also occurs but is limited (Kitselas First Nation
34 2020, 2022c). Plants are used for food, medicines, and as building and crafting materials for both
35 practical and ceremonial items (Kitselas First Nation 2022c). The timing of harvest is often signaled by
36 signs in nature and throughout the seasonal cycle, harvested resources are consumed fresh and are also
37 preserved for later use (Kitselas First Nation 2022c). The seasonal cycle begins after the coldest nights of
38 winter and the beginning of spring (Kitselas First Nation 2022c). In spring, Kitselas First Nation members

1 plant vegetable gardens and begin harvesting plants and medicines (Kitselas First Nation 2022c). In May,
2 trees are bark-stripped, and sap is collected. Wood is also collected for traditional carvings and for
3 smokehouses in the springtime (Kitselas First Nation 2022c). In the summer, berries, mushrooms, and
4 other plants are harvested and garden produce is collected. In the late summer and early fall, nettle and
5 firewood are collected (Kitselas First Nation 2022c). Plants such as Labrador tea, fruit, and root
6 vegetables are collected in the fall. Hunting becomes a main activity and trapping of small animals
7 occurs in the fall. In the winter, there is limited harvesting (Kitselas First Nation 2022c). When trapping
8 was economically viable, Kitselas First Nation members would travel to their traplines in the late fall
9 (Kitselas First Nation 2022c).

10 Many hunting areas are accessed by waterways while Kitselas First Nation members are out engaging in
11 aquatic harvesting or travelling between harvest areas and settlement (Kitselas First Nation 2022c).
12 Many harvesting areas are associated with settlement locations including cabins, houses, or campsites
13 that Kitselas members use while on the coast (Kitselas First Nation 2022c). There are terrestrial
14 harvesting locations near the mouth of the Skeena River, on Lelu Island, Kennedy Island, Lewis Island,
15 Porcher Island and Stephens Island. Through engagement, Kitselas First Nation noted that hunters
16 would travel up the Ecstall River to the Brown's Sawmill to hunt mountain goat, deer, and bear
17 (Kitselas First Nation 2022c). Lelu Island, Kennedy Island, Lewis Island, Porcher Island, and
18 Stephens Island are located along the MSR.

19 Kitselas First Nation community members harvest a variety of terrestrial species as part of their seasonal
20 round and maintain rights and responsibility of family traplines. At the on-set of the winter season
21 commonly trapped terrestrial species include beaver, coyote, fisher, lynx, marten, squirrel, weasel, wolf
22 and wolverine (Kitselas First Nation 2020; Kitselas 2022c). Mink frequently trapped to produce
23 ceremonial regalia. Along the coastline and along several outer coastal islands accessible through
24 Kitselas traditional access routes and waterways, Kitselas First Nation community members also hunt
25 deer, bear and other small mammals during fish harvests (Kitselas First Nation 2020). Other harvested
26 animals include mountain goats, deer, moose, geese, ducks, grouse, bear, and rabbit
27 (Kitselas First Nation 2022c).

28 Kitselas First Nation harvests Devil's club, spruce trees, thimbleberry shoots, mushrooms, salmonberries,
29 blueberries, raspberries, red huckleberries, stonecrop, *'wooksalii* bulbs, *hoosms* roots, soapberries,
30 cow parsnips, fiddleheads, stinging nettle, Labrador team cranberries, crab apples, potatoes, turnips,
31 tree fruit, and fireweed. Trees that are bark-stripped includes alder, cottonwood, hemlock, and cedar.
32 Maple and birch are also collected (Kitselas First Nation 2022c).

33 Through engagement with Kitselas First Nation, the Proponents understand that Kitselas First Nation
34 have unique connections to the lands of their territory and feel a strong responsibility to care for it; the
35 Nation expressed concerned about existing pressures on terrestrial species that are hunted and the
36 protection of the lands and resources in their territory. Kitselas First Nation has reported harvesting sites
37 and areas accessed during the seasonal round have changed over time because of government

1 regulation, land alienation due to settlement and industry, harvesting by non-Kitselas people, pollution,
2 and climate change (Kitselas First Nation 2022c).

3 **15.3.2 Project Pathways**

4 All phases of the Project (construction, operation, decommissioning) have the potential to affect
5 Kitselas First Nation terrestrial harvest and consumption. Changes to Kitselas First Nation terrestrial
6 harvest and consumption could result through the pathways identified in Table 15.1–2 in Section 15.1.4.

7 The conclusions in this section are informed by the results of engagement with Kitselas First Nation, the
8 literature review, and related biophysical VC assessments presented in the Application.

9 **15.3.3 Mitigation and Enhancement Measures**

10 Mitigation measures were selected based on the considerations described in Section 15.1.8 and are
11 intended to be implemented in combination with Project design considerations and measures to
12 mitigate and enhance potential effects of the Project on environmental resources and conditions that
13 support Kitselas First Nation terrestrial harvest and consumption. A complete listing of measures can be
14 found in Appendix A and additional details can be found in the following VC Sections:

- 15 • Air Quality (Section 7.02)
- 16 • Acoustic (Section 7.03)
- 17 • Wildlife and Wildlife Habitat (Section 7.07)
- 18 • Human Health (Section 7.14)

19 Table 15.2–1 provides the additional mitigation and enhancement measures to avoid or reduce impacts
20 to Kitselas First Nation terrestrial harvest and consumption

21 **15.3.4 Project Residual Effect**

22 As described in Section 15.2.4, changes in air quality and noise are predicted within applicable VC LAAs,
23 the Project footprint and along the MSR and OWAA during all Project phases. The Project is not
24 predicted to result in a change in the quality of country foods within applicable VC LAAs during any of
25 the Project phases as all pathways are inoperable.

26 Project construction will result in a direct habitat loss or alteration of terrestrial wildlife habitat
27 throughout the Wildlife and Wildlife habitat LAA and the Project footprint due to vegetation clearing
28 and Site preparation activities and an indirect loss or alteration of terrestrial wildlife habitat at the
29 Project footprint will occur during the operation phase due to sensory disturbance (i.e., reduced habitat
30 effectiveness). These activities and associated residual effects on terrestrial wildlife will however occur
31 on Nisga’a Category A lands that are not accessible to Kitselas First Nation. The Project is therefore not
32 expected to result in adverse residual effects on Kitselas First Nation interests related to terrestrial
33 consumption and harvest at the Project footprint.

1 Kitselas First Nation may however encounter alteration of the harvesting experience at terrestrial
2 harvesting sites adjacent the applicable VC LAAs, the MSR, the OWAA, and in the vicinity of the Project
3 footprint due to real or perceived sensory disturbances associated with the increase in LNG carriers and
4 associated change in air quality and noise levels (primarily during the operation phase). Shipping
5 activities and associated residual effects may reduce Kitselas First Nation terrestrial harvesting activities
6 within their territory that they rely upon for food, social, ceremonial (FSC), economic, subsistence, trade,
7 and other purposes.

8 With the implementation of mitigation measures outlined in Table 15.2–1 and Appendix A, a low
9 magnitude residual effect on Kitselas First Nation terrestrial harvest and consumption is anticipated at
10 terrestrial harvesting sites adjacent the applicable VC LAAs, the MSR and OWAA, and in the vicinity of
11 the Project footprint due to potential changes in overall quality of the harvesting experience. Residual
12 effects from increased noise levels and change in air quality due to the two FLNG barge transits during
13 construction and decommissioning will be short term and single events. Residual effects during the
14 operation phase will be long-term, lasting for longer than one generation (25 years), and will occur as
15 multiple regular events during the operation phase (30 years). Residual effects are considered reversible
16 during all Project phases as they are tied to marine shipping; the effects cease once the vessels pass
17 through applicable VC LAAs, the MSR and OWAA. The risk of a residual effect on Kitselas First Nation
18 terrestrial harvest and consumption is moderate (moderate consequence, high likelihood) during all
19 Project phases, with moderate uncertainty due to unknown external variables.

20 **15.4 Changes to Kitselas First Nation Governance and Social and Economic Conditions**

21 This section provides the assessment of potential Project effects on Kitselas First Nation governance,
22 decision making and economic development.

23 **15.4.1 Background and Existing Conditions**

24 Kitselas First Nation recognize both traditional Hereditary chiefs under the traditional Tsimshian
25 governance structure as well as an elected Band council (Kitselas First Nation 2022c).

26 The elected Band Council provides direction for the Nation and administers educational services and
27 programs, employment, housing support, health services, and other initiatives on-reserve to support
28 Kitselas members; these aspects of Kitselas First Nation social and economic structure remain tied to
29 their Traditional Tsimshian governance system (Cedar 2022). Kitselas First Nation Band council has also
30 developed the Kitselas Land and Resources Policy, which states the principles and processes for land,
31 water, and resource management within Kitselas territory. The policy evolved through Kitselas
32 stewardship, practiced by Kitselas Elders and community members. The policy defines criteria for
33 effective inter-government relationships, to ensure meaningful and respectful consultation with
34 Kitselas First Nation when dealing with lands, water, and resources within Kitselas territory
35 (Kitselas First Nation n.d.). In 2019, the Band Council also coordinated Kitselas First Nations membership
36 in the North Coast Skeena First Nations Stewardship Society, which oversees both regional and local
37 community-based initiatives for sustainable marine resource harvesting (NCSFNSS 2015).

1 The traditional governance system for Kitselas First Nation includes four socio-political units, informed
2 by the Tsimshian laws which set out the rights and responsibilities associated with the different levels of
3 socio-political organization (Kitselas First Nation 2022c). The *wilp* (house) is a matrilineal kin group and is
4 the fundamental political and land-owning unit (Kitselas First Nation 2022c). This group generally bears
5 the name of its chief (Kitselas First Nation 2022c). The hereditary chiefs are descendants of all previous
6 generations who acquired, defended, and managed the house territories and associated rights
7 (Kitselas First Nation 2022c). The second socio-political unit is *wil'naat'at*, which is a network of houses
8 from different tribes that share a common origin history. The Clan is the third socio-political unit, which
9 is a matrilineal group in which everyone is considered kin and every *wil'naat'at*, is a part of. The
10 Tsimshian has four clans: *laxgibuu* (wolf), *ganhada* (raven), *gispwudwada* (blackfish/killer whale), and
11 *laxgiik* (eagle). The fourth socio-political unit of Tsimshian society is the tribe, which is made up of all the
12 houses at a specific residence location (Kitselas First Nation 2022c). The houses within the village
13 represent different *wil'naat'at* and clans. According to Kitselas First Nation, in traditional Tsimshian
14 culture, members loyalties were first to their own lineage and clan and second to their tribe or village
15 and its chief. The extensive political, social, and economic ties to surrounding villages provided shared
16 territory, kinship ties, and security within the whole Tsimshian Nation (Kitselas First Nation 2022c).
17 These ties are still recognized today and form the basis of social and economic connections including
18 harvesting and trading rights and responsibilities at funerals and potlaches (Kitselas First Nation 2022c).

19 Kitselas First Nation reported that colonialization of Indigenous people has led to alienation from the
20 lands, waters, and resources upon which their economy is based (Kitselas First Nation 2022c). Through
21 engagement with Kitselas First Nation, the Proponents understand that Kitselas First Nation value their
22 governance systems and their ability to make decisions about their territory, however, they have
23 repeatedly experienced a diminishment of their authority due to uptake of lands for industrial and other
24 extractive developments. Kitselas First Nation indicated that this has largely been due to the *Indian Act*
25 and the *Fisheries Act*, as well as laws impacting forestry and wildlife (Kitselas First Nation 2022c).
26 Kitselas First Nation believe that the imposition of these systems has led to fixed residential locations
27 and changes to the traditional governance structure of the Tsimshian (Kitselas First Nation 2022c).
28 Kitselas First Nation reported that the Band government is a political unit that acts for the tribe and
29 makes decisions relating to their territories, but the Band government is not reflective of their
30 traditional governance structures (Kitselas First Nation 2022c). Through engagement with
31 Kitselas First Nation, the Proponents understand that Kitselas people have also experienced, and
32 continue to experience, the effects of intergenerational trauma due to the many assimilative policies of
33 the *Indian Act*, including the impacts of residential schools, the potlatch ban, and related loss of
34 traditional knowledge and stories. The Government of Canada have developed several reconciliation
35 principles and aims to “support efforts to end the denial of Indigenous rights that led to
36 disempowerment and assimilationist policies and practices... [and recognize] that Indigenous nations are
37 self-determining, self-governing, increasingly self-sufficient, and rightfully aspire to no longer be
38 marginalized, regulated, and administered under the *Indian Act* and similar instruments”. With respect
39 to the Government of Canada’s principles, Principle 8 states that Indigenous nations be provided “access

1 to land and resources, in order to govern effectively and to provide programs and services to those for
2 whom they are responsible” (Government of Canada 2021).

3 Through Project engagement, Kitselas First Nation stated that industrial development is taking away
4 much of the culture, knowledge, and ability to access the land (Kitselas First Nation 2022c). Due to this,
5 many Kitselas First Nation members, especially Elders, must rely on fewer people to provide ceremonial
6 and food resources to the community, impacting Kitselas First Nation’s way of life (Kitselas First Nation
7 2022c).

8 **15.4.1.1 Kitselas First Nation Arrangements with the Province of British Columbia, the Government**
9 **of Canada, and other Indigenous Nations**

10 In 2006, Kitselas First Nation signed the North Coast Strategic Land Use Planning Agreement with the
11 Province of British Columbia (BC). The North Coast Strategic Land Use Planning Agreement set out a
12 framework for Kitselas First Nation and the Government of BC to refine management objectives,
13 monitor strategic land and resource planning outcomes, and jointly address related land use
14 management concerns (Kitselas First Nation and the Province of British Columbia 2006).

15 The Environmental Stewardship Initiative (ESI) was established in 2014 between the Province of BC,
16 Kitselas First Nation, and other coastal First Nations (Government of British Columbia n.d.; FDMS 2018).
17 The ESI aimed to build relationships among the participating groups through the cooperative
18 development of projects centered on ecosystem assessment, monitoring, restoration, enhancement,
19 research, and knowledge exchange and on stewardship education and training (Government of British
20 Columbia 2016). Kitselas First Nation also entered into an agreement and signed a Letter of
21 Understanding (LOU) regarding the LNG ESI in 2016 (Government of British Columbia 2016). In 2018, the
22 ESI agreement was modified to include the North Coast Cumulative Effects Demonstration Project
23 Agreement; the revised agreement stipulated that the ESI was a collaborative government to
24 government initiative between the Province of BC and the signatory First Nations and was “intended to
25 generate a positive environmental stewardship legacy” (Government of British Columbia 2018a). Shortly
26 after the ESI agreement was modified, the ESI North Coast Ecosystem Restoration Project Agreement
27 was signed by the Province of BC, Kitselas First Nation and other coastal First Nations (Government of
28 British Columbia 2018b). The ESI North Coast Ecosystem Restoration Project Agreement was established
29 to support the collaborative design and implementation of various Nation-specific Indigenous
30 Stewardship Projects (ISPs) for terrestrial and aquatic ecosystems within each Nation’s territory
31 (Government of British Columbia 2018b).

32 Kitselas First Nation are also members of the Marine Plan Partnership for the North Pacific Coast and the
33 Environmental Stewardship Initiative. The Marine Plan Partnership is a collaborative initiative between
34 16 Indigenous nations along the coast of BC and the Province of BC (MaPP 2020). The Environmental
35 Stewardship Initiative involves collaboration with the Government of BC on the development of shared
36 principles in land management (FDMS 2018).

1 In 2017, Kitselas First Nation signed the Kitselas LNG Coastal Fund Agreement with the province of BC
2 within which Kitselas First Nation confirmed their support of LNG industry in BC given that its interests
3 are met including issues related to Indigenous rights, impacts to resources and social and economic, and
4 the cumulative impacts of LNG development (Kitselas First Nation and the Province of British Columbia
5 2017a). Kitselas First Nation also entered the Kitselas LNG Benefits Agreement in 2017 with the
6 Government of BC which provides funding for community and economic development projects as well
7 as funded the land transfers associated with proposed LNG developments in their territory
8 (Kitselas First Nation and the Province of British Columbia 2017b). The Kitselas Reconciliation Agreement
9 was signed in 2017 to improve government relationships between Kitselas First Nation and the
10 Government of BC. This agreement was created to support the completion of their final treaty and
11 provides funding for a community wellness process for industrial development related effects on
12 Kitselas First Nation (Kitselas First Nation and the Province of British Columbia 2017c).

13 More recently in 2020, Kitselas First Nation signed the Reconciliation Framework Agreement for
14 Bioregional Oceans Management and Protection with the Government of Canada. The Agreement
15 encourages more efficient and collaborative approaches for the maintenance and protection of
16 marine ecosystems, resources and marine use activities. Overall, the objective of the Agreement is to
17 implement collaborative marine planning initiatives within the Northern Shelf bioregion
18 (BC Treaty Commission 2021; Government of Canada 2019).

19 Kitselas First Nation is part of the Tsimshian First Nations Treaty Society which is negotiating within the
20 BC treaty process on behalf of its five member bands that are either in Stage 4 or 5 of the treaty process
21 (Government of British Columbia 2022). Kitselas First Nation is currently in Stage 5 (negotiating to
22 finalize) of the BC treaty process (Government of British Columbia 2022). Kitselas First Nation has also
23 signed an Agreement-in-Principle with Canada and BC (Government of British Columbia 2022).

24 The Proponents are not aware of any existing agreements made directly between Kitselas First Nation
25 and other Indigenous nations regarding governance of areas of territory overlap, as relevant to the
26 Project.

27 **15.4.1.2 Population and Reserves**

28 The current registered population of Kitselas First Nation is 748 as of June 2023, comprised of
29 393 women and 355 men (CIRNAC 2023).

30 Kitselas First Nation has 10 reserves: reserve land area totals 1,069.10 ha (BCAFN 2021; CIRNAC 2023).
31 A list of the Kitselas First Nation reserve lands is provided in Table 15.4–1 and the Nation’s reserves are
32 shown on Figure 15.14–1 (CIRNAC 2023). Kitselas First Nation’s reserve in Port Essington (Spookshuut) is
33 jointly administered with Kitsumkalum First Nation. Two of the 10 reserves, Kitselas Indigenous Reserve
34 (IR) 1 (Gitau IR 1; approximately 434.6 ha) and Kulspai (Kulspai IR 6; approximately 6.90 ha) are
35 inhabited year-round (Kitselas First Nation 2020; BCAFN 2021).

- 1 About half of Kitselas residents live at Kitselas IR 1 (Gitaus), located 15-minutes away from the City of
2 Terrace. Kitselas IR 1 (Gitaus) is in the Kitselas Canyon along the Skeena River. Most other Nation
3 members live in Kulspai (Reserve No.6), which is located west of Terrace, as well as in larger cities such
4 as Prince George, Prince Rupert and Vancouver (Kitselas First Nation n.d.). A single community member
5 resides at Endudoon (Kshish IR 4) and another at Chimdimash (Chimdimash IR 2 and IR 2A) (Kitselas
6 CWWG 2020).
- 7 The Skeena River is one of the major waterways within Kitselas territory, and most Kitselas First Nation
8 reserves are located along the shorelines of this waterway, including Chimdimash IR 2 and
9 Chimdimash IR 2A, Ikshenigwolk IR3, Kshish IR4, Zaimoetz IR5, Kulspai IR 6; and Ketonedá IR7.

Table 15.4–1 – Kitselas First Nation Reserves

Number	Name	Location	Size (ha)	Valued Component Assessment Areas Overlapping Reserve Lands	Distance to Project Facility (km)	Distance to OWAA (km)	Distance to MSR (km)
07638	CHIMDIMASH 2	COAST DISTRICT, RANGE 5, ON THE SKEENA RIVER AT THE MOUTH OF CHIMDEMASH CREEK, 3 MILES NORTHEAST OF USK CN RAILWAY STATION	65.10	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	121.46	158.5	107.1
07639	CHIMDIMASH 2A	COAST DISTRICT, RANGE 5, ON LEFT BANK OF SKEENA RIVER BETWEEN THE MOUTHS OF CHIMDEMASH AND MANNIX CREEKS NORTH AND ADJOINING IR NO. 2	119.30	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	122.41	160.1	108
07640	IKSHENIGWOLK 3	COAST DISTRICT, RANGE 5, ON LEFT BANK OF SKEENA RIVER AT MOUTH OF LEGATE CREEK 2 MILES SOUTH OF PACIFIC CN STATION	28.70	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	125.95	167	111.4
07645	KETONEDA 7	COAST DISTRICT, RANGE 5, ON LEFT BANK OF SKEENA RIVER 2 MILES SOUTHEAST OF DOREEN CN STATION	40.80	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	120.61	165.4	106.1
07637	KITSELAS 1 (GITAUS)	COAST DISTRICT, RANGE 5, ON THE SKEENA RIVER AT THE MOUTH OF KLEANZA CREEK ONE MILE SOUTH OF USK CN STATION	434.60	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	119.79	154.1	105.6

Table 15.4–1 – Kitselas First Nation Reserves

Number	Name	Location	Size (ha)	Valued Component Assessment Areas Overlapping Reserve Lands	Distance to Project Facility (km)	Distance to OWAA (km)	Distance to MSR (km)
07641	KSHISH 4 (INCLUDES KSHISH 4A)	COAST DISTRICT, RANGE 5, ON RIGHT BANK OF THE SKEENA RIVER NORTH OF THE MOUTH OF THE ZYMOETZ RIVER	258.30	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	119.29	150.5	105.3
07642	KSHISH 4B	COAST DISTRICT, RANGE 4, AN ADDITION TO IR NO. 4, LOT 2169 NORTH OF AND ADJOINING IR NO. 4	4	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	120.72	152.3	106.7
07644	KULSPAI 6	COAST DISTRICT, RANGE 5, ON LEFT BANK OF SKEENA RIVER 3 MILES SOUTH OF TERRACE	6.90	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	117.51	144.2	104
07649	PORT ESSINGTON	COAST DISTRICT, RANGE 5, PORT ESSINGTON TOWNSITE, ON LEFT BANK OF THE SKEENA RIVER, AT MOUTH OF THE ECSTALL RIVER	2	N/A	96.22	49.4	26.5
07643	ZAIMOETZ 5	COAST DISTRICT, RANGE 5, ON LEFT BANK OF THE SKEENA RIVER AT THE MOUTH OF THE ZYMOETZ RIVER	109.40	Community Health and Wellness RAA; Employment and Economy RAA; Infrastructure and Services RAA	120.20	150	106.3

1 **15.4.1.3 Economic Development**

2 The Kitselas Development Corporation and the Kitselas Development Limited Partnership are the
3 economic arms of the Nation (Kitselas First Nation 2018). The Kitselas Development Limited Partnership
4 and Kitselas Development Corporation strive to build economic independence for the Nation through
5 the provision of sustainable economic business opportunities and job creation for Kitselas community
6 members (Kitselas First Nation 2020). The Kitselas Development Limited Partnership oversees
7 decision-making for the Kitselas Development Corporation, which focuses on the development of
8 Kitselas-owned businesses, and partnerships with other regional businesses, contractors and
9 proponents on Kitselas territory (Kitselas First Nation 2018; Kitselas First Nation 2020). Some examples
10 of recent profit-sharing opportunities generated through the Kitselas Development Corporation include
11 the Kitselas Development Park, the Onion Lake Site, and Groundside Commercial Park
12 (Kitselas First Nation 2020). In addition to business opportunities, the Kitselas Development Corporation
13 also holds Kitselas First Nation’s off-reserve lands (including impact agreement lands and fee simple
14 lands) in trust for Kitselas First Nation members (Kitselas First Nation 2020).

15 Proceeds from Kitselas Development Corporation are generally directed towards improving services
16 within Kitselas First Nation, such as Emergency Response, employment and training, health and
17 wellness, housing, education, and membership services (Kitselas First Nation 2019; Kitselas First Nation
18 2020).

19 Kitselas First Nation recognizes the need to improve unemployment rates within the
20 Kitselas community, which in 2015 reached 15% for males and 25% for females (Statistics Canada 2018;
21 Kitselas First Nation 2019). Kitselas First Nation has identified that portions of reserve lands can be
22 leased to commercial and industrial developments to boost community employment rates on reserves
23 (Kitselas First Nation 2019). As of 2015 Kitselas First Nation members received an overall average
24 income of \$44,208, which is approximately a third less than the average of other British Columbians.
25 Most Kitselas First Nation members are employed through the resource sector, wholesale and health
26 and education (Kitselas First Nation 2019).

27 In addition to more contemporary economic activities, Kitselas First Nation traditional economy is
28 centered around seasonal rounds and represents another key element of Kitselas First Nation culture
29 (Cedar 2022). Kitselas First Nation seasonal rounds are rooted in the accumulation of knowledge
30 associated with the inextricable linkages between the environmental and the practice of traditional
31 harvesting activities (Kitselas First Nation 2022c). Resources harvested during the seasonal rounds also
32 provide opportunities for Kitselas people to trade and sell among Nation members and with other
33 neighbouring Indigenous nations (Kitselas First Nation 2022c).

34 Through Project engagement, Kitselas First Nation indicated that they, as well as many other coastal
35 BC Indigenous people, are engaged in the commercial wage economy through seasonal employment at
36 canneries (Kitselas First Nation 2022c). These locations became important areas of income and were
37 also centres of social life as many Kitselas people shared experiences there (Kitselas First Nation 2022c).
38 Kitselas First Nation expressed concern with industrial developments in their territory, stating that

1 industrial projects are taking away Kitselas First Nation’s way of life, despite creating job opportunities
2 (Kitselas First Nation 2022c). Kitselas First Nation members stated that the land and resources being
3 taken away through development is a perpetuation of colonization (Kitselas First Nation 2022c).
4 Kitselas First Nation also noted concern regarding potential social and economic effects from shipping
5 and the housing of temporary construction workforce.

6 **15.4.2 Project Pathways**

7 All phases of the Project (construction, operation, decommissioning) have the potential to affect
8 Kitselas First Nation governance, decision-making and economic development. Changes to
9 Kitselas First Nation governance, decision-making and economic development could result through the
10 pathways identified in Table 15.1–2 in Section 15.1.4.

11 The conclusions in this section are informed by the results of engagement with Kitselas First Nation, the
12 literature review, and related biophysical VC assessments presented in the Application.

13 **15.4.3 Mitigation and Enhancement Measures**

14 Mitigation measures were selected based on the considerations described in Section 15.1.8 and are
15 intended to be implemented in combination with Project design considerations and measures to
16 mitigate and enhance potential effects of the Project on environmental resources and conditions that
17 support Kitselas First Nation governance and social and economic conditions. A complete listing of
18 measures can be found in Appendix A and additional details can be found in the following VC Sections:

- 19 • Air Quality (Section 7.02)
- 20 • Acoustic (Section 7.03)
- 21 • Wildlife and Wildlife Habitat (Section 7.07)
- 22 • Marine Resources (Section 7.09)
- 23 • Employment and Economy (Section 7.10)
- 24 • Marine Use (Section 7.11)
- 25 • Infrastructure and Services (Section 7.12)
- 26 • Human Health (Section 7.14)

27 Table 15.2–1 provides the additional mitigation and enhancement measures to avoid or reduce impacts
28 to Kitselas First Nation governance, decision making and economic development.

29 **15.4.4 Project Residual Effect**

30 As described in Section 15.2.4, residual effects are anticipated on Kitselas First Nation marine
31 consumption and harvest during all phases due to alteration of the harvesting experience through
32 change in air quality and increased sound levels and change in the abundance and distribution of
33 harvested species in the vicinity of the Project footprint and within the applicable VC LAAs, the OWAA
34 and MSR (inclusive of timing considerations due to the seasonal movements of migratory species).

1 As described in Section 15.3.4, residual effects on Kitselas First Nation terrestrial harvest and
2 consumption are anticipated along terrestrial areas (harvesting sites) adjacent the MSR and OWAA that
3 are accessed by Kitselas First Nation due to potential changes in overall quality of experience (increased
4 noise level and change in air quality associated with marine shipping activities). Kitselas First Nation
5 governance and social and economic conditions may therefore be affected through a related change in
6 the status and position of hereditary leaders and change in the production of foods from discrete house
7 territories overlapping the applicable VC LAAs, the MSR, the OWAA and in the vicinity of the Project
8 footprint.

9 As described in Section 15.2.4, a measurable change in Kitselas First Nation marine access and ability to
10 make decisions regarding vessel traffic in the OWAA and the MSR is predicted to occur due to the
11 increase in LNG carrier transits occurring each year during the operation phase (30 years). However, as
12 the Project is expected to comply with existing marine use plans and participate in federal initiatives and
13 requirements (e.g., development and implementation of recommendations from a Navigational Safety
14 Assessment), it is not expected to create a change or disruption that widely reduces or restricts
15 Kitselas First Nation present marine access and use activities to a point where they cannot continue at
16 current activity levels (Section 7.11). The increase in marine shipping activities within the applicable
17 VC LAAs, the OWAA and the MSR may however result in changes in Kitselas First Nation ability to uphold
18 the Nation’s management principles in these areas.

19 Residual effects are also anticipated on regional business and regional economy during all Project
20 phases (construction, operation, and decommissioning) within the Employment and Economy LAA
21 (Section 7.10). Adverse effects on regional business stem from increased competition for labour and
22 upward pressure on wages due to Project-related wages being greater than existing conditions and due
23 to the potential for Project employment to be deemed more desirable than other forms of employment
24 in the Employment and Economy LAA (Section 7.10). Upward pressure on wages can lead businesses to
25 increase the price of consumer goods (consumables) to cover increased operating expenses contributing
26 to an increased cost of living (change in regional economy). Real estate speculation and increased
27 demand for housing from in-migrating workers to Employment and Economy LAA (primarily during the
28 operation phase of the Project) are anticipated to contribute to increased housing costs (Section 7.10).

29 Adverse residual effects are anticipated on utilities and waste management, emergency services,
30 housing availability, and transportation infrastructure within the Infrastructure and Services LAA
31 (Section 7.12), and Kitselas First Nation may experience an alteration of access to regional infrastructure
32 and services (e.g., health centers, shopping centers) and associated travel routes (marine and
33 terrestrial), including those that they rely upon in Prince Rupert and Terrace. However, with the
34 application of mitigation and enhancement measures, including the use of the self-contained floatel and
35 other permanent on-Site accommodations to house the Project workforce during construction and
36 operation, and the implementation of Project-specific management plans, residual effects are not
37 predicted to result in an exceedance of available capacity, or a decrease in the quality of a service
38 provided, on a persistent and ongoing basis (Section 7.12).

1 With the implementation of mitigation measures outlined in Table 15.2–1 and Appendix A, residual
2 effects on Kitselas First Nation interests related to governance and social and economic conditions
3 during all Project phases are anticipated to be moderate in magnitude within the applicable VC LAAs,
4 the OWAA, the MSR and in the vicinity of the Project footprint, inclusive of timing considerations due to
5 the seasonal movements of migratory species, seasonal activities at sacred places and heritage sites and
6 potential seasonal recreational activities of the Project workforce (e.g., fly fishing, trail use). Residual
7 effects are short-term during the construction and decommissioning phases and will occur as multiple
8 irregular events. Residual effects are long-term (lasting for longer than one generation [25 years]) during
9 the operation phase and will occur as multiple regular events. Residual effects are considered reversible
10 during all Project phases; effects associated with marine shipping cease once the FLNG barges and LNG
11 carriers and tugboats pass through the applicable VC LAAs, the MSR and OWAA, noise levels will return
12 to current conditions once noise-generating activities cease, and employment and labour income
13 impacts cease upon Project completion. The risk of a residual effect on Kitselas First Nation governance
14 and social and economic conditions is moderate (moderate consequence, high likelihood) during all
15 Project phases, with moderate uncertainty due to unknown external variables.

16 **15.5 Changes to Kitselas First Nation Sacred Places and Heritage Sites**

17 This section provides the assessment of potential Project effects on Kitselas First Nation sacred places
18 and heritage sites.

19 **15.5.1 Background and Existing Conditions**

20 Archaeological and ethnographic evidence suggests that Kitselas First Nation have occupied their
21 territory for over 5,000 years (Kitselas First Nation 2022b). There are hundreds of archaeological sites
22 documented within the North Coast region of their territory (Kitselas First Nation 2022c).
23 Kitselas First Nation consider some archaeological and heritage sites to be sacred places
24 (Kitselas First Nation 2022c). Kitselas First Nation define sacred or ceremonial places as locations known
25 to have sacred or avoidance qualities or that are used for traditional ceremonies or rites
26 (Kitselas First Nation 2022c).

27 Kitselas First Nation reported that sacred places and heritage sites remain important physical
28 representations of their spiritual, cultural, and physical ties to their territory (Kitselas First Nation
29 2022a). The variety of Kitselas sacred places and heritage sites illustrates the Nation's deep-time and
30 widespread occupation of the region (e.g., village sites, lithic sites, rock art sites, burial sites)
31 (Kitselas First Nation 2022a). Kitselas First Nation also identified an important sacred site at the mouth
32 of the Ecstall River that has therapeutic as well as specific cultural uses for Nation members
33 (Kitselas First Nation 2022c).

34 Through Project engagement, Kitselas First Nation noted Kitselas heritage sites on Digby Island and
35 throughout Venn Passage in Prince Rupert Harbour (Kitselas First Nation 2022a). Heritage sites were
36 also reported at the mouth of the Skeena River, particularly important is Port Essington (Spookshuut), as
37 well as Ecstall Island at the mouth of the Ecstall River and the coast of Chatham Sound and Portland Inlet

1 (Kitselas First Nation 2022a, 2022c). Digby Island, Prince Rupert Harbour, Port Essington, Ecstall Island,
2 and the coasts of Chatham Sound and Port inlet are all located along the MSR.

3 **15.5.2 Project Pathways**

4 All phases of the Project (construction, operation, decommissioning) have the potential to affect
5 Kitselas First Nation sacred place and heritage sites. Changes to Kitselas First Nation sacred places and
6 heritage sites could result through the pathways identified in Table 15.1–2 in Section 15.1.4.

7 The conclusions in this section are informed by the results of engagement with Kitselas First Nation, the
8 literature review, and related biophysical VC assessments presented in the Application.

9 **15.5.3 Mitigation and Enhancement Measures**

10 Mitigation measures were selected based on the considerations described in Section 15.1.8 and are
11 intended to be implemented in combination with Project design considerations and measures to
12 mitigate and enhance potential effects of the Project on environmental resources and conditions that
13 support Kitselas First Nation sacred places and heritage sites. A complete listing of measures can be
14 found in Appendix A and additional details can be found in the following VC Sections:

- 15 • Air Quality (Section 7.02)
- 16 • Acoustic (Section 7.03)
- 17 • Marine Use (Section 7.11)
- 18 • Human Health (Section 7.14)
- 19 • Archaeological and Heritage Resources (Section 7.15)

20 Table 15.2–1 provides the additional mitigation and enhancement measures to avoid or reduce impacts
21 to Kitselas First Nation sacred places and heritage sites.

22 **15.5.4 Project Residual Effect**

23 As described in Section 15.2.4, changes in air quality and noise are predicted at the applicable VC LAAs,
24 the Project footprint and along the MSR and OWAA during all Project phases and may alter the quality
25 of experience at sacred places and heritage sites..

26 As described in Section 15.2.4, a measurable change in Kitselas First Nation marine access, and therefore
27 Kitselas First Nation ability to access sacred places and heritage sites is expected along the Marine Use
28 LAA, the MSR, the OWAA, and in the vicinity of the Project footprint, due to the increase in LNG carrier
29 transits occurring during the operation phase (30 years). However, as the Project is expected to comply
30 with existing marine use plans and participate in federal initiatives and requirements (e.g., development
31 and implementation of recommendations from a Navigational Safety Assessment), it is not expected to
32 create a change or disruption that widely reduces or restricts Kitselas First Nation ability to access sacred
33 places and heritage sites to a point where they cannot continue at current activity levels.

1 As described in Section 7.15, 12 archaeological sites and 18 historic Culturally Modified Tree sites are
2 located within the Archaeological and Heritage Resources LAA (Nisga’a Category A lands). After
3 implementation of mitigation measures identified in Section 7.15 and engagement with Nisga’a Nation
4 and other affected Indigenous groups, no adverse residual effects on Archaeological and
5 Heritage Resources are anticipated within the VC LAA. As described in Section 7.11, wave heights
6 generated by transiting LNG carriers and escort tugs are anticipated to be within the range of natural
7 wave conditions. Therefore, wake waves are not expected to have adverse effects on sacred places and
8 heritage sites within marine, intertidal, or shoreline areas and are therefore not carried forward in the
9 assessment.

10 Kitselas First Nation may however encounter reduced quality of experience and increased avoidance at
11 sacred places and heritage sites within applicable VC LAAs, and adjacent the MSR, the OWAA, and in the
12 vicinity of the Project footprint due to real or perceived sensory disturbances associated with the
13 increase in LNG carriers and associated change in air quality and noise levels (primarily during the
14 operation phase). If Kitselas First Nation experience qualitative disconnect from their sacred places and
15 heritage sites, they may also experience loss or alteration of the ability to share knowledge and history
16 with current and future generations.

17 With the implementation of mitigation measures outlined in Table 15.2–1 and Appendix A, residual
18 effects on Kitselas First Nation interests related to sacred places and heritage sites during all Project
19 phases are anticipated to be moderate in magnitude within the applicable VC LAAs, the MSR, the OWAA,
20 and in the vicinity of the Project footprint, inclusive of timing considerations due to the seasonal use of
21 sacred places and heritage sites. Residual effects are short-term during the construction and
22 decommissioning phases and will occur as multiple irregular events. Residual effects are long-term
23 (lasting for longer than one generation [25 years]) during the operation phase and will occur as multiple
24 regular events. Residual effects are considered reversible during all Project phases as effects associated
25 with marine shipping cease once the vessels pass through the applicable VC LAAs, the MSR and OWAA.
26 During all Project phases, the risk of a residual effect on Kitselas First Nation sacred places and heritage
27 is moderate (moderate consequence, high likelihood) with moderate uncertainty due to unknown
28 external variables. However, Project activities will occur within an established shipping route where
29 access to sacred places and heritage sites will be able to safely continue in a manner that is generally
30 consistent with existing conditions and direct impacts to Kitselas First Nation sacred places and heritage
31 sites are not anticipated.

32 **15.6 Changes to Kitselas First Nation Health and Well-being**

33 This section provides the assessment of potential Project effects on Kitselas First Nation health and
34 well-being.

1 **15.6.1 Background and Existing Conditions**

2 Health and well-being can be influenced by several contributing factors that can affect quality of life,
3 including housing, employment, education, income, and community cohesion (discussed in
4 Section 15.4.1; Section 7.13), as well as crime rates, access to health care, and overall conditions of
5 human health, which can include various sensory components such as light, noise, and quality of air
6 (odours).

7 Kitselas First Nation’s Community Wellness Working Group (CWWG) has developed an approach to
8 assess the risk and impacts of large industrial projects occurring within their territory on
9 Kitselas First Nation health (Kitselas First Nation 2022b). The CWWG identified six potential community
10 health and safety priorities and critical risks in associated with the Project: (1) marine environment
11 safety and accessibility, (2) transportation infrastructure overload, (3) influx of workers, (4) risks
12 associated with employment opportunities for female workers, (5) added pressure on services, and
13 (6) the opioid crises (Kitselas First Nation 2022b).

14 Kitselas First Nation reported that marine environment safety and accessibility is one of the main
15 determinates of health (Kitselas First Nation 2022b). Kitselas First Nation view the marine environment
16 as extremely important and central to the cultural and traditional practices they have perpetuated since
17 time immemorial (Kitselas First Nation 2022b). Kitselas First Nation traditional diet is heavily reliant on
18 marine-based resources and reduced access to resources and spiritual sites is a major pathway for
19 adverse health outcomes experienced by Nation members (Kitselas First Nation 2022b). Additionally,
20 engaging in marine based activities enables Kitselas First Nation to realize numerous physical,
21 emotional, spiritual and mental health benefits such as increased physical activity, consumption of
22 healthier diets, improved mental health and motivation, and stronger connection to their cultural
23 identity (Kitselas First Nation 2022b). Kitselas First Nation has noted difficulty in harvesting traditional
24 foods within the region that are free from pollutants (Kitselas First Nation 2022b). Kitselas First Nation
25 also noted the impact of systemic disenfranchisement from fishing practices that have reduced the
26 ability for the community to access traditional foods (Kitselas First Nation 2022b).

27 Kitselas First Nation territory is overlapped by the geographical boundaries of the Terrace Local Health
28 Area and approximately half of the Kitselas population resides on-reserve at Gitau (IR1), which is
29 located 20 km northeast of the City of Terrace (Kitselas First Nation 2022b). Kitselas First Nation
30 therefore consider the city of Terrace to be a primary service area for Nation members, and that the
31 social and health, infrastructure and other social and economic conditions of the region directly
32 influence the health and well-being of the Nation (Kitselas First Nation 2022b). Kitselas First Nation
33 considers the transportation infrastructure for the city of Terrace to be overloaded and not equipped to
34 accommodate current and future use; the Nation has noted concern regarding potential Project-related
35 increases in regional traffic and associated potential increases in vehicular accidents and traffic delays
36 for Nation members (Kitselas First Nation 2022b).

1 Kitselas First Nation indicated that the influx of non-local Project workers often leads to adverse social,
2 health, and environmental impacts for local communities (Kitselas First Nation 2022b).
3 Kitselas First Nation is concerned with the potential for non-local workers to put additional pressure on
4 the availability and affordability of housing, accessibility to health and emergency services, and mental
5 health and substance abuse problems in the region (Kitselas First Nation 2022b). Kitselas First Nation
6 noted that Indigenous women and children are disproportionately vulnerable to potential adverse effects
7 associated with an influx of non-local workers and identified that Indigenous women statistically
8 experience higher rates and more severe forms of physical assault, sexual assault, trafficking, and theft
9 compared to other demographics (Kitselas First Nation 2022b). Additionally, Kitselas First Nation
10 identified that female community members seeking employment in large-scale industrial development
11 projects in northern BC have faced challenges and barriers such as lack of access to safety equipment,
12 unsafe work practices, and unsafe work environments, that have resulted in adverse outcomes on their
13 health and well-being (Kitselas First Nation 2022b).

14 The Proponents understand that sites associated with resources and cultural values support the health
15 and well-being of Kitselas First Nation. For this assessment, community cohesion is defined as the social
16 attachment and/or sense of belonging that Indigenous people may express within their unique
17 communities (e.g., common identity, interpersonal and/or intergroup trust, norms of reciprocity,
18 participation in community/cultural events, intergenerational solidarity and social networks of
19 emotional, and social and spiritual support) (Northern Health 2018; Statistics Canada 2016).

20 **15.6.2 Project Pathways**

21 All phases of the Project (construction, operation, decommissioning) have the potential to affect
22 Kitselas First Nation health and well-being. Changes to Kitselas First Nation health and well-being could
23 result through the pathways identified in Table 15.1–2 in Section 15.1.4.

24 The conclusions in this section are informed by the results of engagement with Kitselas First Nation, the
25 literature review, and related biophysical VC assessments presented in the Application.

26 **15.6.3 Mitigation and Enhancement Measures**

27 Mitigation measures were selected based on the considerations described in Section 15.1.8 and are
28 intended to be implemented in combination with Project design considerations and measures to
29 mitigate and enhance potential effects of the Project on environmental resources and conditions that
30 support Kitselas First Nation health and well-being. A complete listing of measures can be found in
31 Appendix A and additional details can be found in the following VC Sections:

- 32 • Air Quality (Section 7.02)
- 33 • Acoustic (Section 7.03)
- 34 • Wildlife and Wildlife Habitat (Section 7.07)
- 35 • Marine Resources (Section 7.09)
- 36 • Marine Use (Section 7.11)
- 37 • Infrastructure and Services (Section 7.12)

- 1 • Community Health and Well-being (Section 7.13)
- 2 • Human Health (Section 7.14)

3 Table 15.2–1 provides the additional mitigation and enhancement measures to avoid or reduce impacts
4 to Kitselas First Nation health and well-being.

5 **15.6.4 Project Residual Effect**

6 As described in Sections 15.2.4, 15.3.4, and 15.4.4, residual effects are anticipated on
7 Kitselas First Nation marine and terrestrial harvest and consumption during all phases due to alteration
8 of the harvesting experience through increased sound levels and changes in air quality associated with
9 marine shipping activities. Change in the abundance and distribution of harvested species in the vicinity
10 of the Project footprint and within the OWAA and MSR (inclusive of timing considerations due to the
11 seasonal movements of migratory species) are also anticipated. Change in the abundance and
12 distribution of harvested species in applicable VC LAAs, in the vicinity of the Project footprint, the OWAA
13 and MSR (inclusive of timing considerations due to the seasonal movements of migratory species) are
14 also anticipated. Changes in harvest and consumption are connected to food security and connection to
15 place and are therefore connected to Kitselas First Nation overall health and well-being.

16 A measurable change in Kitselas First Nation marine access is also expected along the Marine Use LAA,
17 the MSR, the OWAA, and in the vicinity of the Project footprint, due to the increase in LNG carrier
18 transits occurring during the operation phase. If Kitselas First Nation experience qualitative disconnect
19 from their sacred places and heritage sites adjacent the OWAA, MSR, the Project footprint and
20 applicable VC LAAs, they may also experience loss or alteration of the ability to share knowledge and
21 history with current and future generations. However, as the Project is expected to comply with existing
22 marine use plans and participate in federal initiatives and requirements (e.g., development and
23 implementation of recommendations from a Navigational Safety Assessment), it is not expected to
24 create a change or disruption that widely reduces or restricts Kitselas First Nation marine access and use
25 to a point where they cannot continue at current activity levels.

26 As described in Section 15.5.4, residual effects on Kitselas First Nation interests related to sacred places
27 and heritage sites are also anticipated during all Project phases within the MSR, the OWAA, and in the
28 vicinity of the Project footprint due to change in quality of experience. However, Project activities will
29 occur within an established shipping route where access to sacred places and heritage sites will be able
30 to safely continue in a manner that is generally consistent with existing conditions and direct impacts to
31 Kitselas First Nation sacred places and heritage sites are not anticipated.

32 Adverse residual effects are anticipated on emergency services within the Infrastructure and Services
33 LAA (Section 7.12), and Kitselas First Nation may experience an alteration of access to regional
34 infrastructure and services (e.g., health centers; hospitals) and associated travel routes (marine and
35 terrestrial), including those that they rely upon in Prince Rupert and Terrace. However, with the
36 application of mitigation and enhancement measures, including the use of the self-contained floatel and
37 other permanent on-Site accommodations to house the Project workforce during construction and

1 operation, and the implementation of Project-specific management plans, , residual effects are not
2 predicted to result in an exceedance of available capacity, or a decrease in the quality of a service
3 provided, on a persistent and ongoing basis (Section 7.12).

4 Adverse residual effects on change in community health, community wellness, food security, and health
5 and medical infrastructure and services are predicted to occur in the Community Health and Wellness
6 LAA due to Project-related population growth, change in demographics, employment opportunities and
7 potential income advancement, and potential Project workforce risk behaviours (Section 7.13). Residual
8 effects in the Community Health and Wellness LAA represent outside stressors that may result in a
9 change in Kitselas First Nation sense of safety, overall health and well-being, and expression of
10 community cohesion. , and expression of community cohesion. However, as described in Section 7.13,
11 The Proponents will provide its workforce with access to on-site primary care as well as personnel
12 programs such as personnel and family assistance which will reduce the potential change in
13 Kitselas First Nation sense of safety and overall health and well-being.

14 With the implementation of mitigation measures outlined in Section 7.13, Table 15.2–1 and Appendix A,
15 residual effects on Kitselas First Nation interests related to health and well-being during all Project
16 phases are anticipated to be moderate in magnitude within the applicable VC LAAs, the MSR, the OWAA,
17 and in the vicinity of the Project footprint, inclusive of timing considerations due to the seasonal use of
18 sacred places and heritage sites, the seasonal movements of migratory species, and potential seasonal
19 recreational activities of the Project workforce (e.g., fly fishing, trail use). Residual effects are short-term
20 during the construction and decommissioning phases and will occur as multiple irregular events.
21 Residual effects are long-term (lasting for longer than one generation [25 years]) during the operation
22 phase and will occur as multiple regular events. Residual effects are considered reversible during all
23 Project phases. Effects associated with marine shipping cease once the vessels pass through the
24 applicable VC LAAs, the MSR and OWAA, noise levels and air quality will return to current conditions
25 once Project activities cease, and Project workforce recreational activities and use of local infrastructure
26 and services cease once the Project is decommissioned. The risk of a residual effect on
27 Kitselas First Nation community health and well-being is moderate (moderate consequence, high
28 likelihood) with moderate uncertainty due to unknown external variables.

29 **15.7 Changes to Kitselas First Nation Access and Travel**

30 This section provides the assessment of potential Project effects on Kitselas First Nation access and
31 travel.

32 **15.7.1 Background and Existing Conditions**

33 Kitselas First Nation consider their entire territory to be a traditional use site (Vopak 2020). Travel and
34 access routes utilized by Kitselas First Nation include boat routes and trails, as well as regional roads,
35 highways, and air travel (Kitselas First Nation 2022b, Kitselas First Nation 2022c). Travel and access are
36 integral to Kitselas First Nation ability to engage in their seasonal rounds, a practice that continues to be
37 tied to their identity, health, and well-being (Kitselas First Nation 2022c). Kitselas First Nation identified

1 49 marine and terrestrial travel routes in the North Coast region of their territory that continue to be
2 accessed today (Kitselas First Nation 2022c). These travel routes intersect or are in the vicinity of the
3 Project location and MSR.

4 Through engagement, Kitselas First Nation reported that there are several sites along the coast of
5 Chatham Sound and Portland Inlet that continue to be accessed by Kitselas First Nation in the present
6 day (Kitselas First Nation 2022a, 2022c). Travel routes used to access these sites have been used since
7 historical times (Kitselas First Nation 2022a, 2022c). Kitselas First Nation noted an important village
8 located on the south shore of the Nass River that is one of many sites used as a campsite and anchorage
9 while Kitselas members gather resources on the coast (Kitselas First Nation 2022a, 2022c).
10 Kitselas First Nation also have several long-established travel routes between the Skeena River and
11 Portland Inlet, including Burnt Cliff Island (Pearl Harbour), Finlayson Island, Birnie Island,
12 Somerville Island, Cathedral Peak and Red Bluff (Kitselas First Nation 2022c). Kitselas First Nation noted
13 travel routes leading into and out of Prince Rupert harbour and Port Edward enable access to key outer
14 coastal areas for fishing or gathering seafood (Kitselas First Nation 2022c).

15 Kitselas First Nation noted that access to and use of the lands and waters within their territory has
16 changed significantly over the last few decades (Kitselas First Nation 2022c). Kitselas First Nation
17 reported that their access to the land and sea has been fundamentally changed due to modern regional
18 development, including residential construction, industrial use, shipping traffic, and encroachment of
19 non-Indigenous resource users (Kitselas First Nation 2022c). Regional population level increases and
20 associated increases in vehicle traffic on and off-land has affected Kitselas First Nation ability to access
21 and navigate their preferred travel routes (Cedar 2022). Kitselas First Nation perceives recreational
22 fishing activities by a non-local populace to have resulted in a reduction in the accessibility to and
23 quantity of their harvested resources (Cedar 2022). Kitselas First Nation reported that Nation members
24 now travel farther afield in order to harvest marine resources that they consider to be healthy and free
25 of pollution (Kitselas First Nation 2022c).

26 Through Project engagement, Kitselas First Nation expressed concern about potential impacts to
27 Chatham Sound due to industrial developments and associated marine traffic (Kitselas First Nation
28 2022c). Access to harvesting areas and undisrupted travel from Prince Rupert and Port Edward remains
29 a priority for the Nation (Kitselas First Nation 2022c).

30 Port Edward, Prince Rupert, the coasts of Portland Inlet and Chatham Sound, Burnt Cliff Island
31 (Pearl Harbour), Finlayson Island, Birnie Island, Somerville Island, Cathedral Peak and Red Bluff are along
32 the MSR.

33 **15.7.2 Project Pathways**

34 All phases of the Project (construction, operation, decommissioning) have the potential to affect
35 Kitselas First Nation access and travel. Changes to Kitselas First Nation access and travel could result
36 through the pathways identified in Table 15.1–2 in Section 15.1.4.

1 The conclusions in this section are informed by the results of engagement with Kitselas First Nation, the
2 literature review, and related biophysical VC assessments presented in the Application.

3 **15.7.3 Mitigation and Enhancement Measures**

4 Mitigation measures were selected based on the considerations described in Section 15.1.8 and are
5 intended to be implemented in combination with Project design considerations and measures to
6 mitigate and enhance potential effects of the Project on environmental resources and conditions that
7 support Kitselas First Nation access and travel. A complete listing of measures can be found in Appendix
8 A and additional details can be found in the following VC Sections:

- 9 • Marine Use (Section 7.11)
- 10 • Infrastructure and Services (Section 7.12)

11 Table 15.2–1 provides the additional mitigation and enhancement measures to avoid or reduce impacts
12 to Kitselas First Nation access and travel.

13 **15.7.4 Project Residual Effect**

14 As described in Section 15.2.4, sensory disturbances (changes in air quality and noise levels) are
15 predicted in the vicinity of the Project footprint and within the OWAA and MSR during all Project phases
16 which may result in an alteration to Kitselas First Nation use of preferred harvesting locations, sacred
17 places and heritage sites and access routes.

18 A measurable change in Kitselas First Nation marine access and travel is also expected in the Marine Use
19 LAA, and in the vicinity of the Project footprint and within the OWAA and MSR due to the increase in
20 LNG carrier transits during the operation phase. However, as the Project is expected to comply with
21 existing marine use plans and participate in federal initiatives and requirements (e.g., development and
22 implementation of recommendations from a Navigational Safety Assessment), it is not expected to
23 create a change or disruption that widely reduces or restricts Kitselas First Nation ability to access and
24 travel to a point where they cannot continue at current activity levels.

25 As described in Section 15.6.4, adverse residual effects are anticipated on transportation infrastructure
26 within the Infrastructure and Services LAA (Section 7.12), and Kitselas First Nation may experience an
27 alteration of access to terrestrial travel routes, including those that they rely upon in Prince Rupert and
28 Terrace. However, with the application of mitigation and enhancement measures, including the
29 implementation of Project-specific management plans, such as those for traffic, residual effects are not
30 predicted to result in an exceedance of available capacity, or a decrease in the quality of a service
31 provided, on a persistent and ongoing basis for Kitselas First Nation (Section 7.12).

32 With the implementation of mitigation measures outlined in Table 15.2–1 and Appendix A, residual
33 effects on Kitselas First Nation interests related to access and travel during all Project phases are
34 anticipated to be moderate in magnitude within the applicable VC LAAs, the MSR, the OWAA, and in the
35 vicinity of the Project footprint, inclusive of timing considerations due to the seasonal use of sacred
36 places and heritage sites and the seasonal movements of migratory species. Residual effects are
37 short-term during the construction and decommissioning phases and will occur as multiple irregular

1 events. Residual effects are long-term (lasting for longer than one generation [25 years]) during the
 2 operation phase and will occur as multiple regular events. Residual effects are considered reversible
 3 during all Project phases. Effects associated with marine shipping cease once the vessels pass through
 4 the applicable VC LAAs, the MSR and OWAA, and noise levels and air quality will return to current
 5 conditions once Project activities cease. The risk of a residual effect on Kitselas First Nation access and
 6 travel is moderate (moderate consequence, high likelihood) with moderate uncertainty due to unknown
 7 external variables.

8 **15.8 Summary of Adverse Residual Effects**

9 Table 15.8–1 summarizes Project residual effects on Kitselas First Nation Indigenous interests. The
 10 assessment of disproportionately distributed residual effects on Kitselas First Nation interests is
 11 provided following the table.

Table 15.8–1 – Project Residual Effects on Kitselas First Nation Indigenous Interests

Project Phase	Proposed Mitigation and Enhancement Measures	Residual Effects Characterization Criteria								
		Magnitude	Geographic Extent	Timing	Duration	Reversibility	Frequency	Affected Sub-Populations	Risk (Likelihood and Consequences)	Uncertainty
Changes to Kitselas First Nation Marine Harvest and Consumption										
Construction	Mitigation IN-1;	M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Operation	Applicable mitigations in Appendix A	M	PF; OWAA; LAAs; MSR	A	LT	R	MR	DD	M	M
Decommissioning		M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Changes to Kitselas First Nation Terrestrial Harvest and Consumption										
Construction	Mitigation IN-1; Applicable mitigations in Appendix A	L	PF; OWAA; LAAs; MSR	A	ST	R	S	DD	M	M
Operation		L	PF; OWAA; LAAs; MSR	A	LT	R	MR	DD	M	M
Decommissioning		L	PF; OWAA; LAAs; MSR	A	ST	R	S	DD	M	M

Table 15.8–1 – Project Residual Effects on Kitselas First Nation Indigenous Interests

Project Phase	Proposed Mitigation and Enhancement Measures	Residual Effects Characterization Criteria								
		Magnitude	Geographic Extent	Timing	Duration	Reversibility	Frequency	Affected Sub-Populations	Risk (Likelihood and Consequences)	Uncertainty
Changes to Kitselas First Nation Governance and Social and Economic Conditions										
Construction	Mitigation IN-1; Applicable mitigations in Appendix A	M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Operation		M	PF; OWAA; LAAs; MSR	A	LT	R	MR	DD	M	M
Decommissioning		M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Changes to Kitselas First Nation Sacred Places and Heritage Sites										
Construction	Mitigation IN-1; Applicable mitigations in Appendix A	M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Operation		M	PF; OWAA; LAAs; MSR	A	LT	R	MR	DD	M	M
Decommissioning		M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Changes to Kitselas First Nation Health and Well-being										
Construction	Mitigation IN-1; Applicable mitigations in Appendix A	M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Operation		M	PF; OWAA; LAAs; MSR	A	LT	R	MR	DD	M	M
Decommissioning		M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M

Table 15.8–1 – Project Residual Effects on Kitselas First Nation Indigenous Interests

Project Phase	Proposed Mitigation and Enhancement Measures	Residual Effects Characterization Criteria								
		Magnitude	Geographic Extent	Timing	Duration	Reversibility	Frequency	Affected Sub-Populations	Risk (Likelihood and Consequences)	Uncertainty
Changes to Kitselas First Nation Access and Travel										
Construction	Mitigation IN-1; Applicable mitigations in Appendix A	M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M
Operation		M	PF; OWAA; LAAs; MSR	A	LT	R	MR	DD	M	M
Decommissioning		M	PF; OWAA; LAAs; MSR	A	ST	R	MIR	DD	M	M

KEY

See Table 15.1–4 for detailed definitions

Magnitude:

NMC: No Measurable Change

L: Low

M: Moderate

H: High

Geographic Extent:

PF: Project Footprint

LAAs: Local Assessment Areas

MSR: Marine Shipping Route

OWAA: Open Water Assessment Area

BR: Beyond Regional

Timing:

N/A: Not Applicable

A: Applicable

Duration:

ST: Short-term

MT: Medium-term

LT: Long-term

Reversibility:

R: Reversible

PR: Partially reversible

I: Irreversible

Frequency:

S: Single event

MIR: Multiple irregular event

MR: Multiple regular event

C: Continuous

Affected Sub-Populations:

E: Evenly distributed

DD: Disproportionally distributed

Risk (Likelihood and Consequences)

L: Low

M: Moderate

H: High

Uncertainty:

L: Low

M: Moderate

H: High

1 **15.8.1 Disproportionately Distributed Residual Effects on Kitselas First Nation Subgroups**

2 Based on the predicted residual effects, the Project may disproportionately affect Kitselas First Nation
3 subgroups in the following ways:

- 4 • reduced quality of the marine and terrestrial harvesting experience, as well as access to fishing
5 or shoreline harvesting sites, which may disproportionately affect Kitselas First Nation members
6 who rely more heavily on these environments and their resources for FSC purposes and or to
7 provide for Elders, hereditary leaders, and others in the community, as well as for feasting or
8 other culturally important events, and for other purposes (e.g., spiritual, trade)
- 9 • reduced decision-making and reduced access to areas where social and economic activities
10 occur (e.g., commercial fishing), which may disproportionately affect Kitselas First Nation
11 members who rely more heavily on these environments and their resources for income or FSC
12 purposes and other purposes (e.g., cultural, economic, spiritual, trade)
- 13 • reduced access and quality of experience at sacred places and heritage sites, which may
14 disproportionately affect Kitselas First Nation members who rely more heavily on these places
15 for knowledge transmission, sharing cultural teachings and history, and spirituality
- 16 • reduced access and travel, which may disproportionately affect Kitselas First Nation members
17 who rely more heavily on established travel and access routes for safe navigation (e.g., seasonal
18 considerations), or to access marine and terrestrial harvesting sites and sacred places and
19 heritage sites, or for the maintenance of trade relationships, or for income or FSC purposes and
20 for other purposes (e.g., spiritual, trade)

21 If Kitselas First Nation decision-making is reduced, or if access and travel routes are altered, or the
22 quality of experience at marine harvesting sites, sacred places and cultural sites is altered, or if the
23 quality and quantity of resources available is diminished, the culture, identity, mental health and
24 physical health, and well-being of Kitselas First Nation sub-groups may be impacted.

25 Adverse effects on Kitselas First Nation may also be disproportionately distributed across the
26 Community Health and Wellness LAA. Employers within Nisga’a Lands and communities outside larger
27 population centres in the Community Health and Wellness LAA, such as Gitau IR 1 and Kulspai IR 6, are
28 expected to experience more pronounced effects of labour scarcity and resultant wage inflation. As
29 such, these communities are also expected to experience more pronounced effects of regional
30 consumer good price inflation. Effects of real estate speculation and increased demand for housing from
31 in-migrating workers (and in some cases families) on housing costs is expected to be more pronounced
32 in communities closest the Project, including for members of Kitselas First Nation residing off-reserve.
33 Within these communities, Kitselas First Nation individuals and families that fall within low-income
34 brackets are most likely to experience economic hardship associated with regional changes in the cost-
35 of-living.

36 Residual effects within the Community Health and Wellness LAA may be disproportionately experienced
37 by Kitselas First Nation subgroups (e.g., Kitselas women requiring specific health services, low-income
38 families requiring housing) that already experience challenges in accessing infrastructure and services

1 and housing in larger centers in Terrace and Prince Rupert. These subgroups may be more adversely
2 affected than other groups by the increased competition for such services resulting from a
3 Project-related temporary increase in the population. With the use of mitigation and enhancement
4 measures described throughout the Application, including the development and implementation of a
5 feedback process to hear concerns from residents of the Infrastructure and Services LAA and members
6 of vulnerable groups, the Proponents aim to reduce the differential effects on Kitselas First Nation
7 sub-groups.

8 As described in Section 7.13, statistics at the provincial and national levels indicate that Indigenous
9 Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, and Asexual Plus
10 (2SLGBTQQIA+) communities are disproportionately affected by gender-based violence and intimate
11 partner violence. For example, 82% of 2SLGBTQQIA+ First Nations, Métis, and Inuit people in Canada
12 have been sexually or physically assaulted by the age of 15 compared to 41% of non-2SLGBTQQIA+ non-
13 Indigenous people (Perreault 2022). Members of Kitselas First Nation who identify as 2SLGBTQQIA+ may
14 be disproportionately susceptible to sexual or physical assault. As a primary means to avoid Project
15 effects in communities, Project personnel during construction and operation will be housed at the Site,
16 limiting the effects of transient workers. For those successful in procuring employment, they may be
17 more prone to workplace violence and harassment. To address workplace harassment and violence, the
18 Proponents will develop and implement a policy that speaks to discrimination, bullying and harassment
19 in the workplace with relevant training. The Proponents will also provide cultural awareness trainings.
20 The Proponents will develop and implement disease and infection management measures as part of its
21 Health Management Services Plan. As a result of the disease and infection management measures,
22 subpopulations who are disproportionately affected by communicable diseases, such as Indigenous
23 2SLGBTQQIA+ populations, will potentially be protected.

24 With the use of mitigation and enhancement measures described throughout the Application, including
25 the development and implementation of a feedback process to hear concerns from residents and
26 members of vulnerable groups, the Proponents aim to reduce the differential effects on Kitselas First
27 Nation sub-groups.

28 **15.8.2 Summary of Potential Adverse Residual Effects Identified for the TLAA**

29 As the transmission line is proposed to be located within Kitselas First Nation territory, potential adverse
30 residual effects on Kitselas First Nation interests are anticipated. This assessment conservatively
31 assumes that construction and/or operation of the transmission line may result in the same or similar
32 potential effects on Kitselas First Nation interests as those identified in Section 15.1.4. Potential
33 pathways for changes to Kitselas First Nation interests are therefore the same as those identified in
34 Table 15.1–2. Some examples include loss or alteration of access to preferred harvesting areas and / or
35 sacred places and heritage sites if present within the TLAA, alteration of necessary conditions, change in
36 the quality and quantity (real or perceived) of culturally important species and country foods, alteration
37 of management principles and ability to make decisions regarding land and marine use, and alteration of

1 community practices tied to identity, community cohesion, and cultural transference opportunities in
2 the territory.

3 As a third-party will ultimately design, implement, and operate the transmission line, the Proponents are
4 not able to commit to mitigation measures specific to the transmission line in relation to adverse
5 residual effects on Kitselas First Nation interests. Legal processes during future permit applications
6 (e.g., a *Fisheries Act* Authorization, [Section 7.10]) are in place to formally commit specific mitigation
7 measures to the transmission line, as applicable, and are expected to be tailored to suit environmental
8 concerns associated with the route selected and equipment to be used based on the final design.

9 Environmental assessments conducted for the Vancouver Island Transmission Reinforcement,
10 Sea Breeze Juan de Fuca Cable, Northwest Transmission Line, and Interior-Lower Mainland Transmission
11 Line projects, considered similar types of potential interactions and mitigation measures and it was
12 determined that the adverse residual effects arising from these projects could be adequately managed.
13 In each of the above-mentioned projects, the BC EAO determined in their assessment report that there
14 would be no significant adverse residual effects associated with construction and operation of these
15 transmission lines.

16 **15.9 Summary of Positive Residual Effects**

17 Positive effects are anticipated within Nisga'a villages, Terrace and Prince Rupert (i.e., Infrastructure and
18 Services LAA and the Community Health and Wellness LAA) through regional gains in employment and
19 income, business and improvements to municipal services, housing, utilities, and transportation
20 infrastructure.

21 Increased employment opportunities in the Employment and Economy LAA may have positive effects on
22 Kitselas First Nation unemployment rates, increase income levels for Kitselas First Nation individuals
23 (and families) who secure employment with the Project and will provide valuable employment
24 experience that can be leveraged by workers to secure employment with other projects/employers
25 following completion of Project-related work. The Project may also serve to diversify the economic base
26 of the Employment and Economy LAA increasing the economic resiliency of the region.

27 Given existing labour force characteristics it is likely that a larger percentage of non-Indigenous men will
28 be employed on the Project than other subpopulations. Mitigation and enhancement measures
29 described in Table 15.2–1, Section 7.10, and Appendix A, will be implemented to increase participation
30 among underrepresented groups on the Project, however, given the estimated size of the Project's
31 workforce, measurable changes in employment equity across the Employment and Economy LAA are
32 not expected.

33 Although the social and economic assessment areas overlap with Kitselas First Nation reserve lands and
34 broader territory, direct positive effects on Kitselas First Nation interests will be limited. As described in
35 Section 7.11, the addition of aids to navigation near the Site will have a positive effect on marine
36 navigation. The installation of aids to navigation will not only mark dangers and obstructions related to
37 the Project but assist marine users in determining their position and course, warn marine users of other

1 dangers or obstructions, and advise marine users of the location of the best or preferred route
2 (Section 7.11).

3 Limited direct positive residual effects to Kitselas First Nation interests are predicted when compared to
4 existing conditions. The Proponents are committed to working directly with Kitselas First Nation to
5 identify opportunities for Kitselas First Nation to realize potential benefits from the Project that can be
6 used to both offset potential adverse effects and create positive effects for the Nation.

7 **15.10 Cumulative Effects Assessment**

8 This section provides the assessment of potential cumulative effects on Kitselas First Nation interests.

9 **15.10.1 Project Residual Effects Likely to Interact Cumulatively with Kitselas First Nation Interests**

10 The Project residual effects identified in Sections 15.2 to 15.7 likely to act cumulatively with those
11 projects and physical activities found in Table 6.9-1, Section 6.9.1 (Project and Physical Activities
12 Inclusion List) are listed in Table 15.10–1 Where residual effects from the project act cumulatively with
13 residual effects from other projects and physical activities, a cumulative effects assessment is carried
14 out. Effects identified in Table 15.10–1 as not likely to interact cumulatively with residual effects of
15 other projects and physical activities (no check mark) are not discussed further. The assessment of the
16 cumulative effects that are likely to result from the Project in combination with other projects and
17 physical activities are discussed in subsequent sections.

18 Since not all reasonably foreseeable projects and physical activities may proceed, the cumulative effects
19 assessment should be considered conservative.

**Table 15.10–1 – Interactions with the Potential to Contribute to Cumulative Effects on
Kitselas First Nation Interests**

Other Projects and Physical Activities with Potential for Cumulative Effects	Kitselas First Nation Interests					
	Changes to marine harvest and consumption	Changes to terrestrial harvest and consumption	Changes to governance and social and economic conditions	Changes to sacred places and heritage sites	Changes to health and well- being	Changes to access and travel
Past and Present Projects and Physical Activities						
Port of Prince Rupert	✓	✓	✓	✓	✓	✓
LNG Canada Export Terminal	✓	✓	✓	✓	✓	✓
Prince Rupert Airports	-	-	✓	-	✓	✓
Northwest Regional Airport Terrace- Kitimat (YXT)	-	-	✓	-	✓	✓
Swamp Point – Sand and Gravel	✓	✓	✓	✓	✓	✓

Table 15.10–1 – Interactions with the Potential to Contribute to Cumulative Effects on Kitselas First Nation Interests

Other Projects and Physical Activities with Potential for Cumulative Effects	Kitselas First Nation Interests					
	Changes to marine harvest and consumption	Changes to terrestrial harvest and consumption	Changes to governance and social and economic conditions	Changes to sacred places and heritage sites	Changes to health and well-being	Changes to access and travel
Stewart Bulk Terminals	✓	✓	✓	✓	✓	✓
Stewart World Port	✓	✓	✓	✓	✓	✓
Port of Hyder, Alaska	✓	✓	✓	✓	✓	✓
Kitsault Mine	✓	✓	✓	✓	✓	✓
Tru Grit Abrasives	✓	✓	✓	✓	✓	✓
All West Trading	✓	✓	✓	✓	✓	✓
Various forestry activities	-	✓	✓	✓	✓	✓
Various fishing and aquaculture activities	✓	-	✓	✓	✓	✓
Marine shipping activities	✓	✓	✓	✓	✓	✓
Coastal GasLink	✓	✓	✓	✓	✓	✓
Reasonably Foreseeable Future Projects and Physical Activities						
Third-party powerline	✓	✓	✓	✓	✓	✓
Port of Prince Rupert	✓	✓	✓	✓	✓	✓
Port Edward Small Scale LNG (Port Edward LNG)	✓	✓	✓	✓	✓	✓
Prince Rupert Gas Transmission Project (TransCanada Corp.)	✓	✓	✓	✓	✓	✓
Westcoast Connector Gas Transmission Project (Enbridge Inc.)	✓	✓	✓	✓	✓	✓
Kinskuch Lake Hydro (Wind River Power Corporation)	-	-	-	-	-	-
Cedar LNG	✓	✓	✓	✓	✓	✓
Skeena LNG	✓	✓	✓	✓	✓	✓
Totem LNG	✓	✓	✓	✓	✓	✓
BC Hydro Transmission Line Upgrades	-	-	✓	-	✓	✓

NOTES:

✓ = Those “other projects and physical activities” whose effects are likely to interact cumulatively with the Project’s residual effects.

– = Interactions between the residual effects of other projects and residual effects of the Project are not expected.

1 **15.10.2 Assessment of Cumulative Effects on Kitselas First Nation Marine Harvest and Consumption**

2 Through Project engagement, Kitselas First Nation noted that many knowledge holders have memories
3 of a less polluted environment where they were able to fish and gather resources at sea with more
4 freedom than they can today (Kitselas First Nation 2022c). Alienation by modern development, including
5 shipping traffic and encroachment of non-Indigenous resource users has fundamentally changed
6 Kitselas First Nation’s access to the sea (Kitselas First Nation 2022c). Kitselas First Nation expressed
7 concern about potential Project contributions to the cumulative effects of other regional industrial
8 developments (Kitselas First Nation 2022a; 2022c). Kitselas First Nation also noted that regional marine
9 traffic in the Prince Rupert Harbour Authority area has already reduced their ability to access and
10 harvest marine resources in the quantities needed (Kitselas First Nation 2022a; 2022c).

11 **15.10.2.1 Cumulative Effect Pathways**

12 As summarized in Table 15.10–1, past and present project and physical activities that have been or are
13 being carried out have contributed to the existing conditions for the Project footprint, MSR and OWAA
14 and the exercise of Kitselas First Nation rights and title. Reasonably foreseeable projects are also
15 anticipated to contribute to the future conditions in the Project assessment areas. Overall, increased
16 marine vessel traffic within the Project footprint, MSR and OWAA has altered the current regional
17 marine areas, contributing to existing cumulative effects on Kitselas First Nation marine harvest and
18 consumption.

19 All phases of the Project (construction, operation, decommissioning) have the potential to contribute to
20 cumulative effects on Kitselas First Nation marine harvest and consumption. Cumulative effects on
21 Kitselas First Nation marine harvest and consumption could result through the pathways identified in
22 Table 15.1–2 in Section 15.1.4.

23 The conclusions in this section are informed by the results of engagement with Kitselas First Nation, the
24 literature review, and related biophysical VC assessments presented in the Application.

25 **15.10.2.2 Mitigation and Enhancement Measures for Cumulative Effects**

26 Mitigation measures to limit residual cumulative effects to Kitselas First Nation marine harvest and
27 consumption are described in Table 15.2–1 and Appendix A, and additional details can be found in the
28 following VC Sections:

- 29 • Air Quality (Section 7.02)
- 30 • Acoustic (Section 7.03)
- 31 • Wildlife and Wildlife Habitat (Section 7.07)
- 32 • Marine Resources (Section 7.09)
- 33 • Marine Use (Section 7.11)
- 34 • Human Health (Section 7.14)

1 Mitigation measures include legislation, best practices, and guidelines applicable to limiting cumulative
2 effects within the region, such as:

- 3 • Federal legislation related to marine shipping and navigation (e.g., *Canada Shipping Act, 2001,*
4 *Canadian Navigable Waters Act*)
- 5 • Project-specific management plans developed in accordance with federal and provincial
6 legislation, regulations, and best practices (i.e., construction environmental management plan;
7 health and medical services plan; social and economic effects management plan)

8 The Proponents have identified their willingness to collaborate in the following initiatives or programs
9 regarding cumulative effects in the region:

- 10 • Develop and implement, subject to navigation safety, speed profiles for marine shipping to
11 prevent or reduce the risk of collision between LNG carriers and marine vessels and mammals,
12 fishers and other marine users (Section 7.09)
- 13 • Programs planned and developed by government and in conjunction with other proponents,
14 stakeholders, and Indigenous nations regarding regional management of potential
15 cumulative effects of underwater noise on marine mammals in the MSR (e.g., Transport Canada
16 Cumulative Effects of Marine Shipping [CEMS] initiative; Section 7.09)
- 17 • Government-led initiatives with respect to cumulative effects on marine navigation,
18 marine fisheries, and other uses in the MSR (Section 7.11)

19 It is expected that proponents of future projects that require regulatory approval will develop mitigation
20 measures like those proposed for this Project. The Proponents are committed to working with
21 Kitselas First Nation to explore opportunities to further mitigate adverse effects to Kitselas First Nation
22 marine harvest and consumption and enhance Project benefits. The Proponents are committed to
23 working directly with Kitselas First Nation to identify opportunities for Kitselas First Nation to realize
24 potential benefits from the Project that can be used to both offset potential adverse effects and create
25 positive effects for the Nation.

26 **15.10.2.3 Residual Cumulative Effects**

27 Cumulative effects from past, present, and reasonably foreseeable future projects in combination with
28 the Project are predicted to adversely affect Kitselas First Nation marine harvest and consumption. The
29 general presence of vessels and increased number of vessels on the water within the MSR, the OWAA,
30 and in the vicinity of the Project footprint, may result in reduced access, interference, community
31 concerns, and safety constraints on the water, which may affect Kitselas First Nation's marine harvest
32 and consumption activities.

33 As described in Sections 7.02, 7.03, and 7.14 residual cumulative effects are anticipated on air quality
34 but not on noise levels within the applicable VC RAAs, the MSR, the OWAA, and at the Project footprint.
35 Residual effects on air quality are predicted close to the LNG carriers within the OWAA and MSR, and at
36 the Project facility, however, the change to air quality is predicted to be low to moderate magnitude
37 (within normal variability or within regulatory criteria) within the Air Quality RAA (Sections 7.02

1 and 7.14). There are no contributing cumulative effects on noise from past projects and physical
2 activities as any noise effects will have ceased after the activities are completed (Section 7.03). Present
3 or reasonably foreseeable projects and physical activities that are located along the applicable VC LAAs,
4 the OWAA, the MSR, and at the Project footprint are not expected to interact cumulatively with noise
5 levels, as noise from shipping activities is expected to attenuate to levels well below the background
6 level within 3 km of their source and there are no other noise sources within this area (3 km) to interact
7 with (Sections 7.03 and 7.14).

8 As described in Section 7.07, residual cumulative effects on marine bird habitat, movement, and
9 mortality risk are predicted within the Wildlife and Wildlife Habitat Marine RAA, the OWAA, and the
10 MSR. The primary contributors to cumulative effects on marine bird movement within the Wildlife and
11 Wildlife Habitat RAA, the MSR and OWAA are marine traffic associated with export facilities, other
12 industrial projects, and passenger transport. The primary contributors to future cumulative effects on
13 marine bird mortality risk within the Wildlife and Wildlife Habitat RAA, the MSR and OWAA are
14 infrastructure within the assessment areas (e.g., Port of Prince Rupert) and marine traffic associated
15 with export facilities, other industrial Projects, and passenger transport. Overall, the Project is not
16 expected to affect the long-term sustainability of regional marine bird populations.

17 As described in Section 7.09, residual cumulative effects on marine resources are predicted within the
18 Marine Resources RAA, the OWAA and the MSR due to increased marine vessel traffic and associated
19 underwater noise related behavioural changes in marine mammals and fish as well as increased risk of
20 marine mammal vessel strikes. Residual cumulative effects on marine resources are also predicted at
21 the Project footprint due to marine construction and operation activities and associated change in water
22 quality, habitat, behaviour (e.g., sensory disturbance from pile installation, infilling), and increased injury
23 or mortality risk (e.g., fish crushing or burial).

24 As described in Section 7.11, residual cumulative effects on marine access are predicted within the
25 Marine Use RAA, the MSR, the OWAA and in the vicinity of the Project footprint as the Project will
26 contribute approximately 148 to 172 additional large vessels to the present and reasonably foreseeable
27 future marine traffic. The Project will contribute up to 160 LNGCs, or approximately 5.9% to the total
28 present and future large marine vessel traffic predicted for the region if all present and future projects
29 and physical activities are built and proceed to operation.

30 With mitigation, contribution of the Project to residual cumulative effects on Kitselas First Nation marine
31 harvest and consumption is expected to be moderate in magnitude within the applicable VC RAAs, the
32 OWAA, the MSR and at the Project footprint, inclusive of timing considerations due to the seasonal
33 movements of migratory species. Residual cumulative effects are long-term, lasting for longer than one
34 generation (25 years), and will occur as multiple regular events. Residual cumulative effects are
35 considered partially reversible as they are primarily tied to Project marine shipping traffic and associated
36 effects. However, residual effects of past, present, and reasonably foreseeable future projects and
37 physical activities combined with the predicted residual effects of the Project are anticipated to be
38 irreversible for Kitselas First Nation members who have already experienced alienation and

1 dispossession from harvesting areas within the applicable VC RAAs, the OWAA, MSR, and in the vicinity
2 of the Project footprint, as these experiences are likely to increase in the future rather than decrease
3 and require regional initiatives and programs to be addressed. The risk of a residual cumulative effect is
4 moderate (moderate consequence, high likelihood) with moderate uncertainty due to unknown external
5 variables. The Proponents have identified their willingness to collaborate in government-led initiatives
6 with respect to cumulative effects on marine navigation and marine fisheries which may assist with
7 reducing further perceptions of barriers and alienation.

8 No additional mitigation measures are proposed for incremental Project contributions to the cumulative
9 effects on the related VCs or on Kitselas First Nation marine harvest and consumption. The Proponents
10 will remain available through Application review should Kitselas First Nation bring forward additional
11 information regarding the assessment of cumulative effects on Kitselas First Nation marine harvest and
12 consumption.

13 **15.10.3 Assessment of Cumulative Effects on Kitselas First Nation Terrestrial Harvest and Consumption**

14 Through Project engagement, Kitselas First Nation noted that many knowledge holders have memories
15 of a less polluted environment where they were able to hunt, travel, and gather resources on land with
16 more freedom than they can today. Alienation by modern development, including infrastructure
17 development, residential construction, industrial use, and encroachment of non-Indigenous resource
18 users has fundamentally changed Kitselas First Nation’s seasonal round and access to the land
19 (Kitselas First Nation 2022c). Kitselas First Nation noted that the accessibility and number of terrestrial
20 harvesting locations within their territory has changed over time (Kitselas First Nation 2022c).

21 **15.10.3.1 Cumulative Effect Pathways**

22 As summarized in Table 15.10–1, past and present project and physical activities that have been or are
23 being carried out have contributed to the existing conditions for the Project footprint, MSR and OWAA
24 and the exercise of Kitselas First Nation rights and title. Reasonably foreseeable projects are also
25 anticipated to contribute to the future conditions in the Project assessment areas. Overall, increased
26 marine vessel traffic in the vicinity of the Project footprint, the MSR and OWAA has altered the current
27 regional marine and adjacent terrestrial lands, contributing to existing cumulative effects on
28 Kitselas First Nation terrestrial harvest and consumption.

29 All phases of the Project (construction, operation, decommissioning) have the potential to contribute to
30 cumulative effects on Kitselas First Nation terrestrial harvest and consumption. Cumulative effects on
31 Kitselas First Nation terrestrial harvest and consumption could result through the pathways identified in
32 Table 15.1–2 in Section 15.1.4.

33 **15.10.3.2 Mitigation and Enhancement Measures for Cumulative Effects**

34 Mitigation measures to limit residual cumulative effects to Kitselas First Nation terrestrial harvest and
35 consumption are described Section 15.10.2.2, as well as in Table 15.2–1, and Appendix A.

1 **15.10.3.3 Residual Cumulative Effects**

2 Cumulative effects from past, present, and reasonably foreseeable future projects in combination with
3 the Project are predicted to adversely affect Kitselas First Nation terrestrial consumption and harvest.
4 The general presence of vessels and increased number of vessels on the water within the applicable
5 VC RAAs, the MSR, the OWAA, and in the vicinity of the Project footprint, may result in reduced access,
6 interference, community concerns, changes to preferred conditions, and safety constraints on the
7 water, which may affect Kitselas First Nation’s terrestrial consumption and harvest activities. As
8 described in Section 15.10.2.3, residual cumulative effects are anticipated for air quality within the Air
9 Quality RAA, the OWAA, the MSR, and at the Project footprint due to increased marine vessel traffic.

10 With mitigation, contribution of the Project to residual cumulative effects on Kitselas First Nation
11 terrestrial consumption and harvest is expected to be moderate in magnitude within the applicable
12 VC RAAs, the MSR, the OWAA, and in the vicinity of the Project footprint, inclusive of timing
13 considerations due to the seasonal movements of migratory species. Residual cumulative effects are
14 long-term, lasting for longer than one generation (25 years), and will occur as multiple regular events.
15 Residual cumulative effects are considered partially reversible as they are primarily tied to Project
16 marine shipping traffic and associated effects. However, residual effects of past, present, and reasonably
17 foreseeable future projects and physical activities combined with the predicted residual effects of the
18 Project are anticipated to be irreversible for Kitselas First Nation members who have already
19 experienced alienation and dispossession from terrestrial harvesting areas within the applicable VC
20 RAAs, the OWAA, the MSR, and in the vicinity of the Project footprint, as these experiences are likely to
21 increase in the future rather than decrease and require regional initiatives and programs to be
22 addressed. The risk of a residual cumulative effect is moderate (moderate consequence, high likelihood)
23 with moderate uncertainty due to unknown external variables.

24 No additional mitigation measures are proposed for incremental Project contributions to the cumulative
25 effects on the related VCs or on Kitselas First Nation terrestrial harvest and consumption. The
26 Proponents will remain available through Application review should Kitselas First Nation bring forward
27 additional information regarding the assessment of cumulative effects on Kitselas First Nation terrestrial
28 harvest and consumption.

29 **15.10.4 Assessment of Cumulative Effects on Kitselas First Nation Governance and Social and**
30 **Economic Conditions**

31 Through Project engagement, Kitselas First Nation stated that culture, knowledge, and the ability to
32 access the land is being taken away due to industrial development (Kitselas First Nation 2022c).
33 The increasing price of purchasing and operating a fishing vessel in recent decades has become
34 prohibitively expensive for Kitselas First Nation members (Kitselas First Nation 2022c). Due to this, many
35 Kitselas First Nation members, particularly Elders, rely on fewer people to provide ceremonial and food
36 resources to the community, which has impacted Kitselas First Nation’s way of life and community
37 cohesion (Kitselas First Nation 2022c).

1 Through engagement with Kitselas First Nation, the Proponents understand that Kitselas people have
2 also experienced, and continue to experience, the effects of intergenerational trauma due to the many
3 assimilative policies of the *Indian Act*, including the impacts of residential schools, the potlatch ban, and
4 related loss of traditional knowledge and stories.

5 **15.10.4.1 Cumulative Effect Pathways**

6 As summarized in Table 15.10–1, past and present project and physical activities that have been or are
7 being carried out have contributed to the existing conditions for the Project footprint, MSR and OWAA
8 and the exercise of Kitselas First Nation rights and title. Reasonably foreseeable projects are also
9 anticipated to contribute to the future conditions in the Project assessment areas. Overall, increased
10 marine vessel traffic within the Project footprint, MSR and OWAA has altered the current regional
11 marine areas, contributing to existing cumulative effects on Kitselas First Nation governance and social
12 and economic conditions. Increased development in regional business in the Employment and Economy
13 RAA and associated demand on infrastructure, services, accommodation and transportation in the
14 Infrastructure and Services RAA has also contributed to existing cumulative effects on
15 Kitselas First Nation governance and social and economic conditions.

16 All phases of the Project (construction, operation, decommissioning) have the potential to contribute to
17 cumulative effects on Kitselas First Nation governance and social and economic conditions. Cumulative
18 effects on Kitselas First Nation governance and social and economic conditions could result through the
19 pathways identified in Table 15.1–2 in Section 15.1.4.

20 The conclusions in this section are informed by the results of engagement with Kitselas First Nation, the
21 literature review, and related biophysical VC assessments presented in the Application.

22 **15.10.4.2 Mitigation and Enhancement Measures for Cumulative Effects**

23 Mitigation measures to limit residual cumulative effects to Kitselas First Nation governance and social
24 and economic conditions are described Section 15.10.2.2, as well as in Table 15.8–1 and Appendix A.

25 **15.10.4.3 Residual Cumulative Effects**

26 Cumulative effects from past, present, and reasonably foreseeable future projects in combination with
27 the Project are predicted to adversely affect Kitselas First Nation governance and social and economic
28 conditions. The general presence of vessels and increased number of vessels on the water within the
29 applicable VC RAAs, the OWAA, the MSR, and in the vicinity of the Project footprint may result in
30 reduced decision-making, interference, community concerns, and safety constraints on the water, which
31 may affect Kitselas First Nation mental and physical health, consumption of marine and terrestrial
32 resources, quality of fishing, hunting, and cultural sites, trade and traditional journey routes, the
33 transmission of cultural knowledge, the strengthening of family ties, and tourism, all of which are
34 connected to Kitselas First Nation governance and social and economic conditions.

35 As described in Section 15.10.2.3, residual cumulative effects are anticipated on air quality, marine
36 birds, marine resources, and marine access within the applicable VC RAAs, the OWAA, the MSR and in
37 the vicinity of the Project footprint due to increased marine vessel traffic. Kitselas First Nation

1 governance may therefore be affected through a related change in the status and position of hereditary
2 leaders and change in the production of foods from discrete house territories overlapping the applicable
3 VC RAAs, the OWAA, the MSR, and in the vicinity of the Project footprint.

4 As described in Section 7.10, residual cumulative effects are anticipated on regional business and
5 economy in the Employment and Economy RAA. Project spending will combine with expenditures made
6 by current and reasonably foreseeable projects and activities to create contracting and business
7 opportunities within the Employment and Economy RAA. If multiple projects are built concurrently,
8 demand and competition for labour may be exacerbated and increase the probability of labour
9 shortages and localized wage inflation within the Employment and Economy RAA communities. Over the
10 longer term, the cumulative effects case may result in a larger and more diversified economic base
11 within the Employment and Economy RAA. Project expenditures on labour, goods, and services may also
12 combine with those of current and reasonably foreseeable future projects and activities creating
13 economic activity and cumulatively increasing demand for labour in the Employment and Economy RAA.

14 As described in Section 7.12, residual cumulative effects on transportation infrastructure and
15 infrastructure and services within the Infrastructure and Services RAA are not expected to result in an
16 exceedance of available capacity, or a decrease in the quality of a service provided, on a persistent and
17 ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation
18 measures.

19 With mitigation, the contribution of the Project to residual cumulative effects on Kitselas First Nation
20 governance and social and economic conditions is expected to be moderate in magnitude within the
21 applicable VC RAAs, the OWAA, the MSR and in the vicinity of the Project footprint, inclusive of timing
22 considerations due to the seasonal movements of migratory species and seasonal activities at sacred
23 places and heritage sites. Residual cumulative effects are long-term, lasting for longer than one
24 generation (25 years), and will occur as multiple regular events. Residual cumulative effects are
25 considered partially reversible as they are primarily tied to Project marine shipping traffic and economic
26 developments which are reversible following each phase (construction, operation, decommissioning).
27 However, residual effects of past, present, and reasonably foreseeable future projects and physical
28 activities combined with the predicted residual effects of the Project are anticipated to be irreversible
29 for Kitselas First Nation decision-making and commercial fishers who have already experienced
30 alienation and dispossession from harvesting areas, and for Kitselas First Nation members who have
31 experienced alienation from sacred places and heritage sites within applicable VC RAAs, the OWAA, the
32 MSR and at the Project footprint, as these experiences are likely to increase in the future rather than
33 decrease and require regional initiatives and programs to be addressed. The risk of a residual cumulative
34 effect is moderate (moderate consequence, high likelihood) with moderate uncertainty due to unknown
35 external variables. The Proponents have identified their willingness to collaborate in government-led
36 initiatives with respect to cumulative effects on marine navigation and marine fisheries as well as those
37 on regional business and economy, which may assist with reducing further perceptions of barriers and
38 alienation.

1 No additional mitigation measures are proposed for incremental Project contributions to the cumulative
2 effects on the related VCs or on Kitselas First Nation governance and social and economic conditions.
3 The Proponents will remain available through Application review should Kitselas First Nation bring
4 forward additional information regarding the assessment of cumulative effects on Kitselas First Nation
5 governance and social and economic conditions.

6 **15.10.5 Assessment of Cumulative Effects on Kitselas First Nation Sacred Places and Heritage Sites**

7 Kitselas First Nation reported the importance of access to sacred and cultural places in renewing
8 connection to traditional use sites and areas, some of which have become inaccessible due to industrial
9 development (Kitselas First Nation 2022c).

10 **15.10.5.1 Cumulative Effect Pathways**

11 As summarized in Table 15.10–1, past and present project and physical activities that have been or are
12 being carried out have contributed to the existing conditions for the Project footprint, MSR and OWAA
13 and the exercise of Kitselas First Nation rights and title. Reasonably foreseeable projects are also
14 anticipated to contribute to the future conditions in the Project assessment areas. Overall, increased
15 marine vessel traffic in the vicinity of the Project footprint, the MSR and OWAA has altered the current
16 regional marine and adjacent terrestrial lands, contributing to existing cumulative effects on
17 Kitselas First Nation sacred places and heritage sites.

18 All phases of the Project (construction, operation, decommissioning) have the potential to contribute to
19 cumulative effects on Kitselas First Nation places and heritage sites. Cumulative effects on
20 Kitselas First Nation sacred places and heritage sites could result through the pathways identified in
21 Table 15.1–2 in Section 15.1.4.

22 **15.10.5.2 Mitigation and Enhancement Measures for Cumulative Effects**

23 Mitigation measures to limit residual cumulative effects to Kitselas First Nation sacred places and
24 heritage sites are described Section 15.10.2.2, as well as in Table 15.2–1, and Appendix A.

25 **15.10.5.3 Residual Cumulative Effects**

26 Cumulative effects from past, present, and reasonably foreseeable future projects in combination with
27 the Project are predicted to adversely affect Kitselas First Nation sacred places and heritage sites. The
28 general presence of vessels and increased number of vessels on the water in the applicable VC RAAS, the
29 MSR, the OWAA, and in the vicinity of the Project footprint may result in interference, community
30 concerns, and safety constraints on the water, which may affect communities’ mental and physical
31 health, the transmission of cultural knowledge, and Kitselas First Nation ability to access, or maintain the
32 current quality of experience, at Kitselas First Nation’s sacred places and heritage sites.

33 As described in Section 15.10.2.3, residual cumulative effects are anticipated on air quality and marine
34 access in the vicinity of the Project footprint, the MSR, the OWAA, and applicable VC RAAs due to
35 increased marine vessel traffic. If Kitselas First Nation experience qualitative disconnect from their
36 sacred places and heritage sites adjacent the Project footprint, the MSR, the OWAA and the applicable

1 VC RAAs, they may also experience loss or alteration of the ability to share knowledge and history with
2 current and future generations.

3 With mitigation, contribution of the Project to residual cumulative effects on Kitselas First Nation sacred
4 places and heritage sites is expected to be moderate in magnitude within the applicable VC RAAs, the
5 OWAA, the MSR and in the vicinity of the Project footprint, inclusive of timing considerations due to the
6 seasonal use of sacred places and heritage sites. Residual cumulative effects are long-term, lasting for
7 longer than one generation (25 years), and will occur as multiple regular events. Residual cumulative
8 effects are considered partially reversible as they are primarily tied to Project marine shipping traffic and
9 associated effects. However, residual effects of past, present, and reasonably foreseeable future
10 projects and physical activities combined with the predicted residual effects of the Project are
11 anticipated to be irreversible for Kitselas First Nation members who have already experienced alienation
12 and dispossession from sacred places and heritages sites within the applicable VC RAAs, the OWAA, the
13 MSR and in the vicinity of the Project footprint as these experiences are likely to increase in the future
14 rather than decrease and require regional initiatives and programs to be addressed. The risk of a
15 residual cumulative effect is moderate (moderate consequence, high likelihood) with moderate
16 uncertainty due to unknown external variables. The Proponents have identified their willingness to
17 collaborate in government-led initiatives with respect to cumulative effects on marine navigation which
18 may assist with reducing further perceptions of barriers and alienation for access to sacred places and
19 heritage sites within the applicable VC RAAs, the OWAA, the MSR and in the vicinity of the Project
20 footprint.

21 No additional mitigation measures are proposed for incremental project contributions to the cumulative
22 effects on the related VCs or on Kitselas First Nation sacred places and heritage sites. The Proponents
23 will remain available through Application review should Kitselas First Nation bring forward additional
24 information regarding the assessment of cumulative effects on Kitselas First Nation sacred places and
25 heritage sites.

26 **15.10.6 Assessment of Cumulative Effects on Kitselas First Health and Well-being**

27 As described in Sections 15.4.1 and 15.6.1, Kitselas people have experienced, and continue to
28 experience, the effects of intergenerational trauma due to the many assimilative policies of the
29 *Indian Act*, including the impacts of residential schools, the potlatch ban, and related loss of traditional
30 knowledge and stories. Through engagement with Kitselas First Nation, the Proponents understand that
31 Kitselas First Nation continues to experience the cumulative effects of these policies as well as
32 cumulative effects of outsiders living in their territory that perpetuate acts of harm or disrespect
33 towards Nation members. Through engagement with Kitselas First Nation, the Proponents understand
34 that Kitselas cultural identity, community cohesion, pride for and knowledge of their heritage (including
35 hereditary lineages), and sense of place have been altered over time, resulting in cumulative effects on
36 Kitselas First Nation health, family and community well-being, and safety.

1 Through consultation and engagement on the Project, Kitselas First Nation identified that they are
2 concerned about the potential for cumulative effects on terrestrial and human health (specifically
3 related to wetlands and air quality) along the coast (e.g., from the Port of Prince Rupert to
4 Pearse Island).

5 **15.10.6.1 Cumulative Effect Pathways**

6 As summarized in Table 15.10–1, past and present project and physical activities that have been or are
7 being carried out have contributed to the existing conditions for the Project footprint, MSR and OWAA
8 and the exercise of Kitselas First Nation rights and title. Reasonably foreseeable projects are also
9 anticipated to contribute to the future conditions in the Project assessment areas. Overall, increased
10 marine vessel traffic in the vicinity of the Project footprint, the MSR and OWAA has altered the current
11 regional marine environment, contributing to existing cumulative effects on Kitselas First Nation health
12 and well-being.

13 All phases of the Project (construction, operation, decommissioning) have the potential to contribute to
14 cumulative effects on Kitselas First Nation health and well-being. Cumulative effects on
15 Kitselas First Nation health and well-being could result through the pathways identified in Table 15.1–2
16 in Section 15.1.4.

17 **15.10.6.2 Mitigation and Enhancement Measures for Cumulative Effects**

18 Mitigation measures to limit residual cumulative effects to Kitselas First Nation health and well-being
19 sites are described Section 15.10.2.2, as well as in Table 15.2–1 and Appendix A.

20 **15.10.6.3 Residual Cumulative Effects**

21 Cumulative effects from past, present, and reasonably foreseeable future projects in combination with
22 the Project are predicted to adversely affect Kitselas First Nation health and well-being. The general
23 presence of vessels and increased number of vessels on the water in the vicinity of the Project footprint,
24 the MSR and OWAA may result in interference, community concerns, and safety constraints on the
25 water, which may affect communities' mental and physical health, the transmission of cultural
26 knowledge, and Kitselas First Nation ability to access, or maintain the current quality of experience, at
27 Kitselas First Nation's harvesting sites and sacred places and heritage sites all of which are connected to
28 Kitselas First Nation overall health, well-being, and safety.

29 As described in Section 15.10.2.3, residual cumulative effects are anticipated on air quality, marine
30 birds, marine resources, and marine access within the OWAA, the MSR and in the vicinity of the Project
31 footprint due to increased marine vessel traffic. These residual cumulative effects may result in changes
32 in community health and Nation members' well-being due to changes to related interests (e.g., change
33 in harvest and consumption, change in cultural identity, change to community cohesion).

1 As described in Sections 7.13, residual cumulative effects are anticipated on community health,
2 community wellness, food security, health and medical infrastructure and services, and expression of
3 community cohesion in the Community Health and Wellness RAA. These residual cumulative effects may
4 result in changes in Nation members' ability to access suitable accommodations, health care and social
5 services, emergency services, travel (land, sea, air), employment opportunities, training for youth and
6 existing workforce in the Community Health and Wellness RAA.

7 With mitigation, contribution of the Project to residual cumulative effects on Kitselas First Nation health
8 and well-being is expected to be moderate in magnitude within the applicable VC RAAs, the OWAA, the
9 MSR and in the vicinity of the Project footprint, inclusive of timing considerations due to the seasonal
10 use of harvesting sites, sacred places and heritage sites, and potential seasonal recreational activities of
11 workers from various projects in the region (e.g., fly fishing, trail use). Residual cumulative effects are
12 long-term, lasting for longer than one generation (25 years), and will occur as multiple regular events.
13 Residual cumulative effects are considered partially reversible as they are primarily tied to Project
14 marine shipping traffic and associated effects. However, residual effects of past, present, and reasonably
15 foreseeable future projects and physical activities combined with the predicted residual effects of the
16 Project are anticipated to be irreversible for Kitselas First Nation members who have already
17 experienced alienation and dispossession from harvesting sites and sacred places and heritages sites
18 within the applicable VC RAAs, the OWAA, the MSR and in the vicinity of the Project footprint as these
19 experiences are likely to increase in the future rather than decrease and require regional initiatives and
20 programs to be addressed. The risk of a residual cumulative effect is moderate (moderate consequence,
21 high likelihood) with moderate uncertainty due to unknown external variables. The Proponents have
22 identified their willingness to collaborate in government-led initiatives with respect to cumulative
23 effects on marine navigation which may assist with reducing further perceptions of barriers and
24 alienation for access to harvesting sites and sacred places and heritage sites within the applicable VC
25 RAAs, the OWAA, the MSR and in the vicinity of the Project footprint.

26 No additional mitigation measures are proposed for incremental Project contributions to the cumulative
27 effects on the related VCs or on Kitselas First Nation health and well-being. The Proponents will remain
28 available through Application review should Kitselas First Nation bring forward additional information
29 regarding the assessment of cumulative effects on Kitselas First Nation health and well-being.

30 **15.10.7 Assessment of Cumulative Effects on Kitselas First Nation Access and Travel**

31 As described in Section 15.10.2, Kitselas First Nation has identified that alienation by modern
32 development, including infrastructure development, residential construction, industrial use, shipping
33 traffic and encroachment of non-Indigenous resource users has fundamentally changed
34 Kitselas First Nation's access to the land and sea, impacting their ability to travel across their territory
35 (Kitselas First Nation 2022c). Kitselas First Nation is concerned about potential Project contributions to
36 the cumulative effects of other regional industrial development, and reduced access to their preferred
37 marine and terrestrial travel routes (Kitselas First Nation 2022c). Kitselas First Nation is concerned about

1 impacts to Chatham Sound due to various regional industrial developments and associated marine
2 traffic (Kitselas First Nation 2022c).

3 **15.10.7.1 Cumulative Effect Pathways**

4 As summarized in Table 15.10–1, past and present Project and physical activities that have been or are
5 being carried out have contributed to the existing conditions for the Project footprint, MSR and OWAA
6 and the exercise of Kitselas First Nation rights and title. Reasonably foreseeable projects are also
7 anticipated to contribute to the future conditions in the Project assessment areas. Overall, increased
8 marine vessel traffic in the vicinity of the Project footprint, the MSR and OWAA has altered the current
9 regional marine environment, contributing to existing cumulative effects on Kitselas First Nation access
10 and travel. Increased development and associated demand on infrastructure, services, accommodation
11 and transportation in the Infrastructure and Services RAA has also contributed to existing cumulative
12 effects on Kitselas First Nation regional access and travel.

13 All phases of the Project (construction, operation, decommissioning) have the potential to contribute to
14 cumulative effects on Kitselas First Nation culture. Cumulative effects on Kitselas First Nation access and
15 travel could result through the pathways identified in Table 15.1–2 in Section 15.1.4.

16 **15.10.7.2 Mitigation and Enhancement Measures for Cumulative Effects**

17 Mitigation measures to limit residual cumulative effects to Kitselas First Nation access and travel are
18 described Section 15.10.2.2, as well as in Table 15.2–1, and Appendix A.

19 **15.10.7.3 Residual Cumulative Effects**

20 Cumulative effects from past, present, and reasonably foreseeable future projects in combination with
21 the Project are predicted to adversely affect Kitselas First Nation access and travel. The general presence
22 of vessels and increased number of vessels on the water in the vicinity of the Project footprint, the MSR
23 and OWAA may result in interference, community concerns, safety constraints on the water, and
24 reduced access and travel activities within Kitselas First Nation territory.

25 As described in Section 15.10.2.3, residual cumulative effects are anticipated on air quality and marine
26 access in the vicinity of the Project footprint the MSR, the OWAA, and the applicable VC RAAs due to
27 increased marine vessel traffic and this may result in an alteration of access to Kitselas First Nation
28 preferred marine harvesting locations and associated travel routes. It may also result in an alteration of
29 access to sacred places and harvesting sites adjacent applicable VC RAAs, the Project footprint, the MSR
30 and the OWAA.

31 As described in Section 7.12, residual cumulative effects are not anticipated on transportation
32 infrastructure within the Infrastructure and Services RAA, therefore loss or alteration of access to
33 regional infrastructure and services and associated terrestrial travel routes is not anticipated.

34 With mitigation, contribution of the Project to residual cumulative effects on Kitselas First Nation access
35 and travel is expected to be moderate in magnitude within the applicable VC RAAs, the OWAA, the MSR
36 and in the vicinity of the Project footprint, inclusive of timing considerations due to the seasonal use of
37 harvesting sites, and sacred places and heritage sites. Residual cumulative effects are long-term, lasting

1 for longer than one generation (25 years) and will occur as multiple regular events. Residual cumulative
2 effects are considered partially reversible as they are primarily tied to Project marine shipping traffic and
3 associated effects. However, residual effects of past, present, and reasonably foreseeable future
4 projects and physical activities combined with the predicted residual effects of the Project are
5 anticipated to be irreversible for Kitselas First Nation members who have already experienced alienation
6 and dispossession from harvesting sites and sacred places and heritages sites within the applicable
7 VC RAAs, the OWAA, the MSR and in the vicinity of the Project footprint as these experiences are likely
8 to increase in the future rather than decrease and require regional initiatives and programs to be
9 addressed. The risk of a residual cumulative effect is moderate (moderate consequence, high likelihood)
10 with moderate uncertainty due to unknown external variables. The Proponents have identified their
11 willingness to collaborate in government-led initiatives with respect to cumulative effects on marine
12 navigation which may assist with reducing further perceptions of barriers and alienation for access to
13 harvesting sites, and sacred places and heritage sites within the applicable VC RAAs, the OWAA, the MSR
14 and in the vicinity of the Project footprint.

15 No additional mitigation measures are proposed for incremental Project contributions to the cumulative
16 effects on the related VCs or on Kitselas First Nation access and travel. The Proponents will remain
17 available through Application review should Kitselas First Nation bring forward additional information
18 regarding the assessment of cumulative effects on Kitselas First Nation access and travel.

19 **15.11 Summary of Cumulative Effects**

20 Table 15.11–1 summarizes cumulative effects on Kitselas First Nation interests. The assessment of
21 disproportionately distributed residual cumulative effects on Kitselas First Nation interests is provided
22 following the table.

23

Table 15.11–1 – Summary of Residual Cumulative Effects on Kitselas First Nation Interests

Residual Cumulative Effect	Proposed Mitigation and Enhancement Measures	Residual Cumulative Effects Characterization Criteria								
		Magnitude	Geographic Extent	Timing	Duration	Reversibility	Frequency	Affected Sub-Populations	Risk (Likelihood and Consequences)	Uncertainty
Changes to Marine Harvest and Consumption										
Residual cumulative effect with the Project	Mitigation IN-1; Applicable mitigations in Appendix A; Regional Initiatives and Programs	M	OWAA; RAAs; MSR	A	LT	PR	MR	DD	M	M
Project contribution to residual cumulative effects		M	OWAA; RAAs; MSR	A	LT	I	MR	DD	M	M
Changes to Terrestrial Harvest and Consumption										
Residual cumulative effect with the Project	Mitigation IN-1; Applicable mitigations in Appendix A; Regional Initiatives and Programs	M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M
Project contribution to residual cumulative effects		M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M

Table 15.11–1 – Summary of Residual Cumulative Effects on Kitselas First Nation Interests

Residual Cumulative Effect	Proposed Mitigation and Enhancement Measures	Residual Cumulative Effects Characterization Criteria								
		Magnitude	Geographic Extent	Timing	Duration	Reversibility	Frequency	Affected Sub-Populations	Risk (Likelihood and Consequences)	Uncertainty
Changes to Governance and Social and Economic Conditions										
Residual cumulative effect with the Project	Mitigation IN-1; Applicable mitigations in Appendix A; Regional Initiatives and Programs	M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M
Project contribution to residual cumulative effects		M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M
Changes to Sacred Places and Heritage Sites										
Residual cumulative effect with the Project	Mitigation IN-1; Applicable mitigations in Appendix A; Regional Initiatives and Programs	M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M
Project contribution to residual cumulative effects		M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M

Table 15.11–1 – Summary of Residual Cumulative Effects on Kitselas First Nation Interests

Residual Cumulative Effect	Proposed Mitigation and Enhancement Measures	Residual Cumulative Effects Characterization Criteria								
		Magnitude	Geographic Extent	Timing	Duration	Reversibility	Frequency	Affected Sub-Populations	Risk (Likelihood and Consequences)	Uncertainty
Changes to Health and Well-being										
Residual cumulative effect with the Project	Mitigation IN-1; Applicable mitigations in Appendix A; Regional Initiatives and Programs	M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M
Project contribution to residual cumulative effects		M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M
Changes to Access and Travel										
Residual cumulative effect with the Project	Mitigation IN-1; Applicable mitigations in Appendix A; Regional Initiatives and Programs	M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M
Project contribution to residual cumulative effects		M	OWAA; RAAs; MSR	A	LT	PR/I	MR	DD	M	M

Table 15.11–1 – Summary of Residual Cumulative Effects on Kitselas First Nation Interests

Residual Cumulative Effect	Proposed Mitigation and Enhancement Measures	Residual Cumulative Effects Characterization Criteria								
		Magnitude	Geographic Extent	Timing	Duration	Reversibility	Frequency	Affected Sub-Populations	Risk (Likelihood and Consequences)	Uncertainty

KEY

See Table 15.1–4 for detailed definitions

Magnitude:

NMC: No Measurable Change

L: Low

M: Moderate

H: High

Geographic Extent:

RAAs: Regional Assessment Areas

MSR: MSR

OWAA: Open Water Assessment Area

BR: Beyond Regional

Timing:

N/A: Not Applicable

A: Applicable

Duration:

ST: Short-term

MT: Medium-term

LT: Long-term

Reversibility:

R: Reversible

PR: Partially reversible

I: Irreversible

Frequency:

S: Single event

MIR: Multiple irregular event

MR: Multiple regular event

C: Continuous

Affected Sub-Populations:

E: Evenly distributed

DD: Disproportionally distributed

Risk (Likelihood and Consequences)

L: Low

M: Moderate

H: High

Uncertainty:

L: Low

M: Moderate

H: High

1 **15.11.1 Disproportionately Distributed Residual Cumulative Effects on Kitselas First Nation Subgroups**

2 Project activities in combination with activities associated with past/present and reasonably foreseeable
3 projects are anticipated to result in the same disproportionately distributed effects on
4 Kitselas First Nation subgroups as those identified in Section 15.8.1. Disproportionately distributed
5 cumulative effects on Kitselas First Nation subgroups extend into the Marine Use, Marine Resources,
6 Wildlife and Wildlife Habitat, Employment and Economy, Infrastructure and Services, and Community
7 Health and Wellness RAAs (Sections 7.07, 7.09, 7.10, 7.11, 7.12, and 7.13) and may also be experienced
8 within the OWAA, the MSR, and the vicinity of the Project footprint.

9 **15.11.2 Summary of Potential Adverse Residual Cumulative Effects Identified for the TLAA**

10 As the transmission line is proposed to be located within Kitselas First Nation territory, potential adverse
11 residual effects are conservatively anticipated on Kitselas First Nation interests resulting from
12 construction and/or operation of the transmission line within the TLAA and these residual effects could
13 act cumulatively with similar effects from other past, present, and likely projects or activities in the
14 region. Cumulative effects on Kitselas First Nation interests could result through the pathways identified
15 in Table 15.1–2 in Section 15.1.4. As a third-party will ultimately design, implement, and operate the
16 transmission line, the Proponents are not able to commit to mitigation measures specific to the
17 transmission line in relation to potential adverse residual cumulative effects on Kitselas First Nation
18 interests. However, the Proponents are of the view that legislation, best practices, and guidelines
19 applicable to limiting cumulative effects within the region, as well as legal processes requiring
20 commitment to specific mitigation measures in relation to the transmission line, will be tailored to suit
21 environmental concerns associated with the route selected and equipment to be used based on the final
22 design. It is expected that the same will be required for past, present and likely other projects and
23 activities.

24 **15.12 Summary**

25 Section 15.8 and Section 15.9 provide a summary of the assessment for Kitselas First Nation outlining
26 the adverse and positive residual effects on Kitselas First Nation interests for the BC EAO to consider
27 when determining the overall seriousness of impact to the Nation’s interests.

28 The following sections summarize the assessment’s concordance to the statutory requirements under
29 the federal *Impact Assessment Act*, the prediction confidence of the assessment overall and discussion
30 regarding follow-up programs for the Project.

31 **15.12.1 Statutory Requirements Under the Federal *Impact Assessment Act***

32 The Proponents understand that Kitselas First Nation interests are intricately linked to one another and
33 are also connected to the Nation’s rights, culture, history, protocols, health and well-being.

34 Matters of interest to Kitselas First Nation and the potential effects on those interests were identified
35 for assessment through engagement with Kitselas First Nation a review of issues and concerns about the
36 Project raised by Kitselas First Nation (Section 15.1.2.2 Key Areas of Concern), and guidance from

1 current federal and provincial acts, impact assessment policies and best practices. Kitselas First Nation
2 interests and potential effects on those interests have been disaggregated according to the preference
3 of Kitselas First Nation. Collectively or independently, as applicable, these interests may inform certain
4 factors for assessment under the federal IAA, as discussed below. The Application’s concordance to all
5 statutory requirements under the federal IAA is provided in Section 24.0.

6 **15.12.1.1 Factor 22 (1)(c): Changes to Kitselas First Nation Rights Recognized and Affirmed by**
7 **section 35 of the *Constitution Act, 1982***

8 Kitselas First Nation is a First Nation and a band as defined in section 2(1) of the *Indian Act*.
9 Kitselas First Nation is in Stage 5 of negotiating independently (through the Tsimshian First Nations
10 Treaty Society) with Canada and BC in the BC treaty process (Section 15.4.1.1; Government of
11 British Columbia 2022), which means there is no treaty available to interpret or define section 35 rights
12 specific to Kitselas First Nation. Therefore, the Proponents’ understanding of Kitselas First Nation’s
13 section 35 rights is informed both in part by interpretations of relevant case law and by the perspectives
14 of Kitselas First Nation regarding their rights, as identified through publicly available literature and
15 through engagement on the Project. Of note, as environmental assessment is not a rights-determination
16 process, this section of the Application has assessed Project-related effects on Kitselas First Nation
17 interests that are broader than the activities typically addressed by case law (e.g., hunting, fishing,
18 trapping) to include any interests or matters of importance identified by Kitselas First Nation.

19 As required under Section 22(1) of the IAA, the assessment of effects regarding changes to
20 Kitselas First Nation rights recognized and affirmed by section 35 of the *Constitution Act, 1982* focused
21 on Kitselas First Nation interests described in Section 15.1.4, as compiled by the methods described in
22 Section 15.1.2 and Section 15.1.3. The findings of the assessment can be found in Sections 15.2 to 15.7
23 and 15.10 are the same for this federal factor, which are also summarized in Sections 15.8, 15.9
24 and 15.11.

25 **15.12.1.2 Factor 22(1)(g): Consideration of Indigenous Knowledge Provided with Respect to the**
26 **Project**

27 The development of this Application was influenced by the Proponents’ consultation with
28 Kitselas First Nation. As discussed in Section 15.1.3, the Proponents recognize that Kitselas First Nation is
29 best positioned to identify the sources of information, including Indigenous knowledge, appropriate for
30 this assessment.

31 Indigenous knowledge used in this Application is derived from ongoing engagement, Project-specific and
32 nation-led studies, secondary sources, and publicly available information identified through engagement
33 with Kitselas First Nation. The treatment of Indigenous knowledge within this section of the Application
34 is presented with any changes requested by Kitselas First Nation following iterative opportunities for
35 review and comment. Refer to Section 15.1.3 for additional information.

36 Additionally, within each applicable assessment section of the Application, a summary of the key
37 information, concerns and Indigenous knowledge shared with the Proponents is provided. This summary

1 also describes the influence that the outcomes of this consultation and engagement has had on the
2 respective assessment.

3 **15.12.1.3 Factor 22(1)(l): Consideration of Changes to Kitselas First Nation Culture**

4 Changes to Kitselas First Nation culture is considered through the assessment of the related interests
5 and potential effects identified in Sections 15.2 to 15.7, including change in marine and terrestrial
6 consumption and harvest, change in governance and social and economic conditions, change in sacred
7 places and heritage sites, change in health and well-being, and change in access and travel. The
8 assessment of cumulative changes to culture considered through the assessment of related interests is
9 described in Section 15.10.

10 **15.12.1.4 Factor 22(1)(r): Consistency with any Plan or Study Prepared by Kitselas First Nation that**
11 **has been Provided for the Project (including any existing Land-Use or Marine-Use Plans)**

12 As described in Section 15.1.5.3, Kitselas First Nation do not have a marine use plan. Kitselas Land and
13 Resources Department released the Kitselas Land Use Plan in 2019 to provide regulations and processes
14 for all land use, site development and enforcement on Kitselas Reserve lands (Kitselas First Nation
15 2019). The Kitselas Land Use Plan is an important document guiding the development and
16 implementation of the *Kitselas Reserve Lands Management Act*, future Kitselas Zoning Laws and
17 Subdivision, and Development and Servicing Law and Processes (Kitselas First Nation 2019;
18 Kitselas First Nation 2020; Kitselas First Nation n.d.).

19 The MSR and the Project footprint do not overlap with the Kitselas First Nation Land-Use Plan areas or
20 reserve lands.

21 **15.12.1.5 Factor 22(1)(s): Disproportionate Effects on Distinct Human Populations (Intersections of**
22 **Sex and Gender with Other Identity Factors)**

23 Where appropriate and information has been available, disproportionate effects on Kitselas First Nation
24 are described in Sections 15.8.1 and 15.11.1. Additionally, Section 7.10 Employment and Economy,
25 Section 7.12 Infrastructure and Services and Section 7.13 Community Health and Wellness assess
26 potential disproportionate effects on distinct human populations, including those identified by sex, age,
27 and other relevant identity factors. The outcomes of these assessments relative to Kitselas First Nation
28 sub-groups are discussed within Sections 15.8.1 and 15.11.1, as applicable.

29 **15.12.1.6 Effects under Section 2(b)(i): Changes to the Environment that would occur on**
30 **Federal Lands**

31 The Project is proposed to be built on Category A lands owned in fee simple by the Nisga'a Nation, one
32 of the Proponents. It does not overlap with a national or provincial park, Crown land, land upon which
33 there are other land tenure holders, or private property not owned by the Proponents. As such, there
34 are no direct physical impacts such as vegetation clearing, and grading that would occur on federal lands
35 used or accessed by Kitselas First Nation. Kitselas First Nation reserve lands are the federal lands in
36 proximity to the Project footprint, the OWAA, and the MSR (refer to Table 15.10–1). None of the VCs
37 that may result in changes to the environment have the potential to interact with Kitselas First Nation
38 federal lands.

1 **15.12.1.7 Effects under Section 2(c)(i): Changes to Physical and Cultural Heritage**

2 Changes to physical and cultural heritage and structures, sites or things of historical, archaeological,
3 paleontological, or architectural significance consider all elements of cultural and historical importance
4 to Kitselas First Nation, in addition to provincial heritage legislative requirements. The Proponents
5 understand that there are tangible and intangible elements of physical and cultural heritage such as
6 Indigenous language, place names, sacred, ceremonial or culturally important places and cultural
7 landscapes. Tangible and intangible elements of physical and cultural heritage are considered aspects of
8 each of Kitselas First Nation’s interests and potential effects identified for assessment. Therefore, the
9 assessment of changes to Kitselas First Nation physical and cultural heritage is provided in Sections 15.2
10 to 15.7 and cumulative changes to Kitselas First Nation physical and cultural heritage are assessed in
11 Section 15.10.

12 Additionally, Section 7.15 Archaeological and Heritage Resources assessed potential effects to physical
13 heritage resources, including culturally modified trees, archaeological resources, and materials or other
14 physical evidence of human habitation or use before 1846. The outcomes of this assessment relative to
15 Kitselas First Nation are discussed within Sections 15.5 and 15.10.5, as applicable.

16 **15.12.1.8 Effects under Section 2(c)(ii): Changes to Current Use of Lands and Resources for**
17 **Traditional Purposes**

18 Changes to Kitselas First Nation Marine and Terrestrial harvest and consumption, Sacred Places and
19 Heritage Sites, and Access and Travel were identified as interests and potential effects for assessment.
20 Each of these interests are representative of Kitselas First Nation’s current use of land and resources for
21 traditional purposes. The effects pathways evaluated for each of these interests are similarly focused on
22 the conditions and resources that support traditional activities, such as, availability of harvested
23 resources, ability to use and access lands and waters and sensory disturbances. The assessment of
24 changes on each of these interests as they relate to Kitselas First Nation’s current use of land and
25 resources for traditional purposes is provided in Sections 15.2, 15.3, 15.5 and 15.7. Cumulative changes
26 to each of these interests are assessed in Section 15.10.

27 **15.12.1.9 Effects under Section 2(c)(iii): Changes to any Structure, Site or Thing of Historical,**
28 **Archaeological, Paleontological, or Architectural Significance**

29 The findings of the assessment found in Section 15.12.1.7 are the same for this federal factor.

30 **15.12.1.10 Effects under Section 2(d): Changes to the Health, Social or Economic Conditions of**
31 **Kitselas First Nation**

32 Changes to Kitselas First Nation Governance and Social and Economic Conditions and Changes to
33 Kitselas First Nation Health and Well-Being were identified as interests and potential effects for
34 assessment. Accordingly, the assessment of changes to Kitselas First Nation health, social and economic
35 conditions is provided in Sections 15.4 and 15.6, and more broadly in Sections 15.2, 15.3, 15.5, and 15.7
36 as these conditions often relate to land-based practices that are intricately connected to health
37 (physical, mental and social well-being) and social and economic conditions (language, culture,

1 governance, land use planning, economic development and self-determination). Cumulative changes to
2 Kitselas First Nation health, social and economic conditions are assessed in Section 15.10.

3 Additionally, where appropriate and information has been available, the health, social and economic
4 conditions for Kitselas First Nation are described in Section 7.10 Employment and Economy, Section 7.11
5 Marine Use, Section 7.12 Infrastructure and Services, Section 7.13 Community Health and Wellness and
6 Section 7.14 Human Health. The outcomes of these assessments relative to Kitselas First Nation are
7 discussed within Sections 15.2 to 15.7, as applicable.

8 **15.12.2 Prediction Confidence**

9 The predication confidence in the conclusions for Project residual effects and residual cumulative effects
10 for Kitselas First Nation interests is moderate and is based on:

- 11 • available information and feedback provided by Kitselas First Nation
- 12 • the suite of mitigation measures and management plans proposed
- 13 • the Proponents' understanding that Kitselas First Nation interests occur on lands and waters
14 within the Project assessment areas that overlap with Kitselas First Nation territory

15 Conservative assumptions regarding the Project were also made for VCs related to Kitselas First Nation
16 interests, as described throughout the Application, to overestimate the effects assessed.

17 **15.12.3 Follow-up Program**

18 The Proponents' follow-up programs that relate to Kitselas First Nation interests includes those
19 programs described in Sections 7.02 Air Quality, 7.04 Surface Water, 7.60 Vegetation and Wetlands, 7.07
20 Wildlife and Wildlife Habitat, Section 7.08 Freshwater Fish and Fish Habitat, 7.09 Marine Resources, 7.10
21 Employment and Economy, and 7.13 Community Health and Well-being, as well as the following
22 planned engagement activities and commitments:

- 23 • engaging with Kitselas First Nation to develop a shared understanding of how the Project may
24 affect their Indigenous interests
- 25 • engaging with Kitselas First Nation to discuss the Project and its effects, understand concerns
26 that may arise and respond to those concerns
- 27 • developing the construction environmental management plan that will contain the mitigation
28 measures presented in this assessment. This plan will be provided to the BC Oil and Gas
29 Commission, BC EAO, and the Agency to document compliance of the Project with the
30 commitments in this Application and the conditions of an Environmental Assessment Certificate
- 31 • working directly with Kitselas First Nation to identify opportunities for Kitselas First Nation to
32 realize potential benefits from the Project that can be used to both offset potential adverse
33 effects and create positive effects for the Nation

34 The Proponents will remain available through Application review should Kitselas First Nation bring
35 forward additional information related to this assessment or should concerns arise or requests for
36 alternate engagement approaches be requested by Kitselas First Nation. Through ongoing engagement

1 (i.e., throughout the life of the Project) the Proponents aim to maintain a positive long-term relationship
2 with Kitselas First Nation.

3 **15.13 Kitselas First Nation Views**

4 This section was authored by the Proponents and sets out the Proponents' understanding of
5 Kitselas First Nation's views shared through engagement to date.

6 Section 15.1.2.1 provides a summary of past engagement activities with Kitselas First Nation that have
7 occurred since March 2021. Table 15.1–1 provides a summary of the key information, including
8 Indigenous knowledge, concerns, and other views that the Proponents identified as part of their
9 engagement efforts with Kitselas First Nation, as well as a summary of the influence that the outcomes
10 of this engagement had on the assessment. Section 15.1.2.2 and Table 15.1–1 summarize the
11 Proponents' understanding of the feedback provided by Kitselas First Nation regarding the assessment
12 of the effects of the Project on Kitselas First Nation's interests as well as other areas of interest related
13 to the EA.

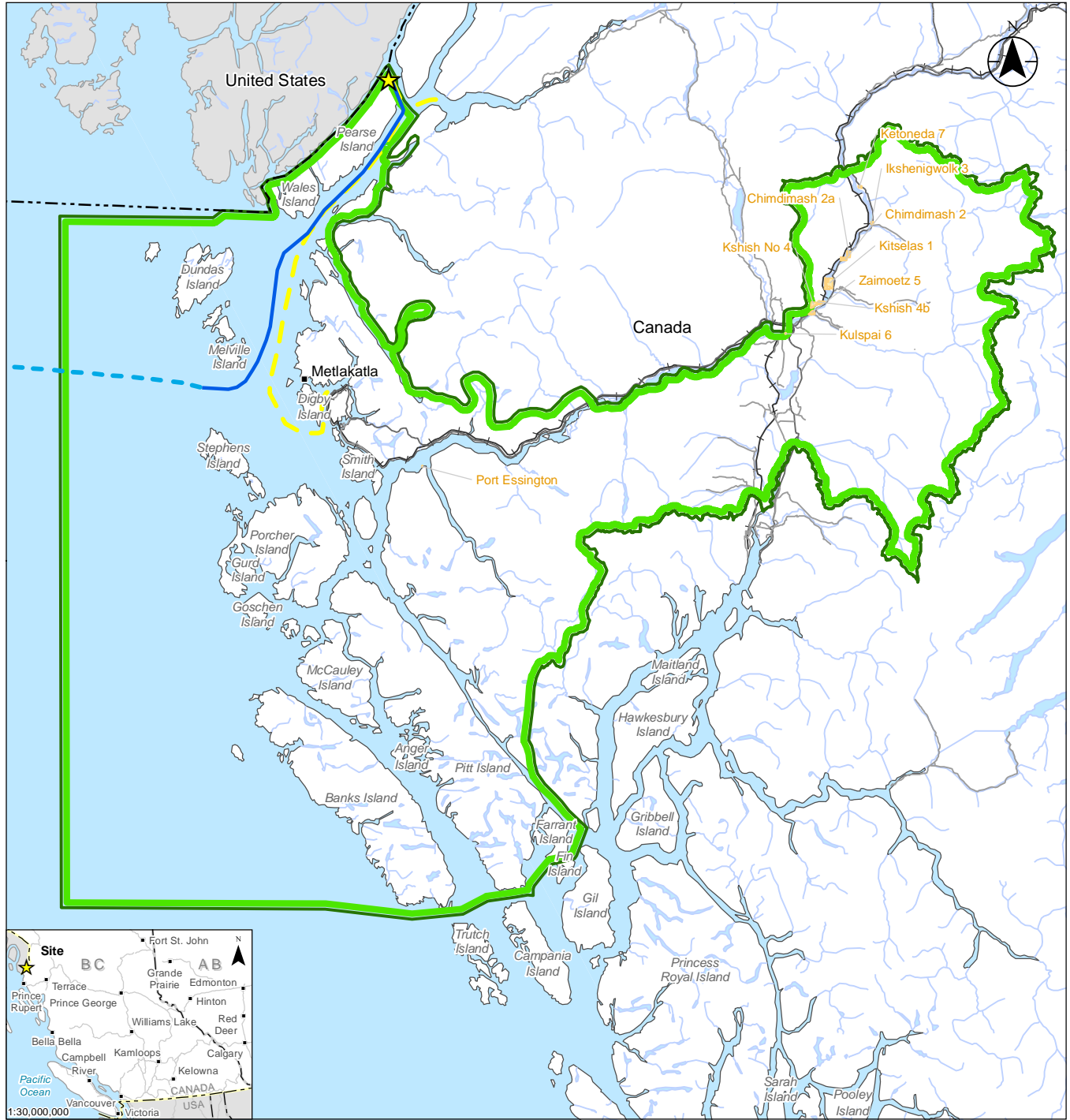
14 The Proponents have not identified any major points of disagreement raised by Kitselas First Nation
15 about the conclusions set out in this chapter regarding the assessment of the effects of the Project on
16 Kitselas First Nation's interests that could not be resolved during the remainder of the EA. Therefore,
17 the Proponents look forward to further engagement and collaboration with Kitselas First Nation to
18 continue building a mutual understanding of how the Project may impact Kitselas First Nation's interests
19 and to co-develop measures to reduce such impacts. The Proponents also plan to continue collaboration
20 with Kitselas First Nation to address any other issues or concerns the Nation may have with the Project
21 or the EA.

22 The Proponents would particularly welcome further feedback from Kitselas First Nation regarding:
23 effects management; characterization of residual effects; and conclusions described in the assessment
24 of the effects of the Project on Kitselas First Nation's interests. The Proponents are also interested to
25 receive feedback from Kitselas First Nation regarding potentially new engagement and collaboration
26 activities and suggested approaches to issue resolution that could be co-developed during the
27 remainder of the EA.

28 Further feedback provided by Kitselas First Nation during the Application Review phase of the EA will be
29 incorporated into the revised Application prior to submission to the BC EAO.

30 The Proponents understand that Kitselas First Nation also intends to author its own chapter in the BC
31 EAO's Assessment Report, which would provide the Nation an opportunity to directly express its views
32 regarding the assessment of the effects of the Project on the Kitselas First Nation's interests.

1 **15.14 Figures**
2

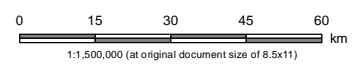


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- ★ Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory

- International Boundary
- Railway
- Watercourse
- Waterbody
- Reserve Land



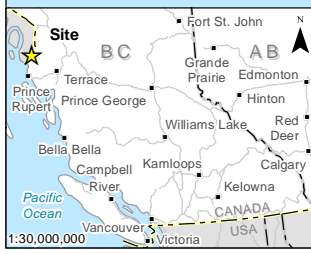
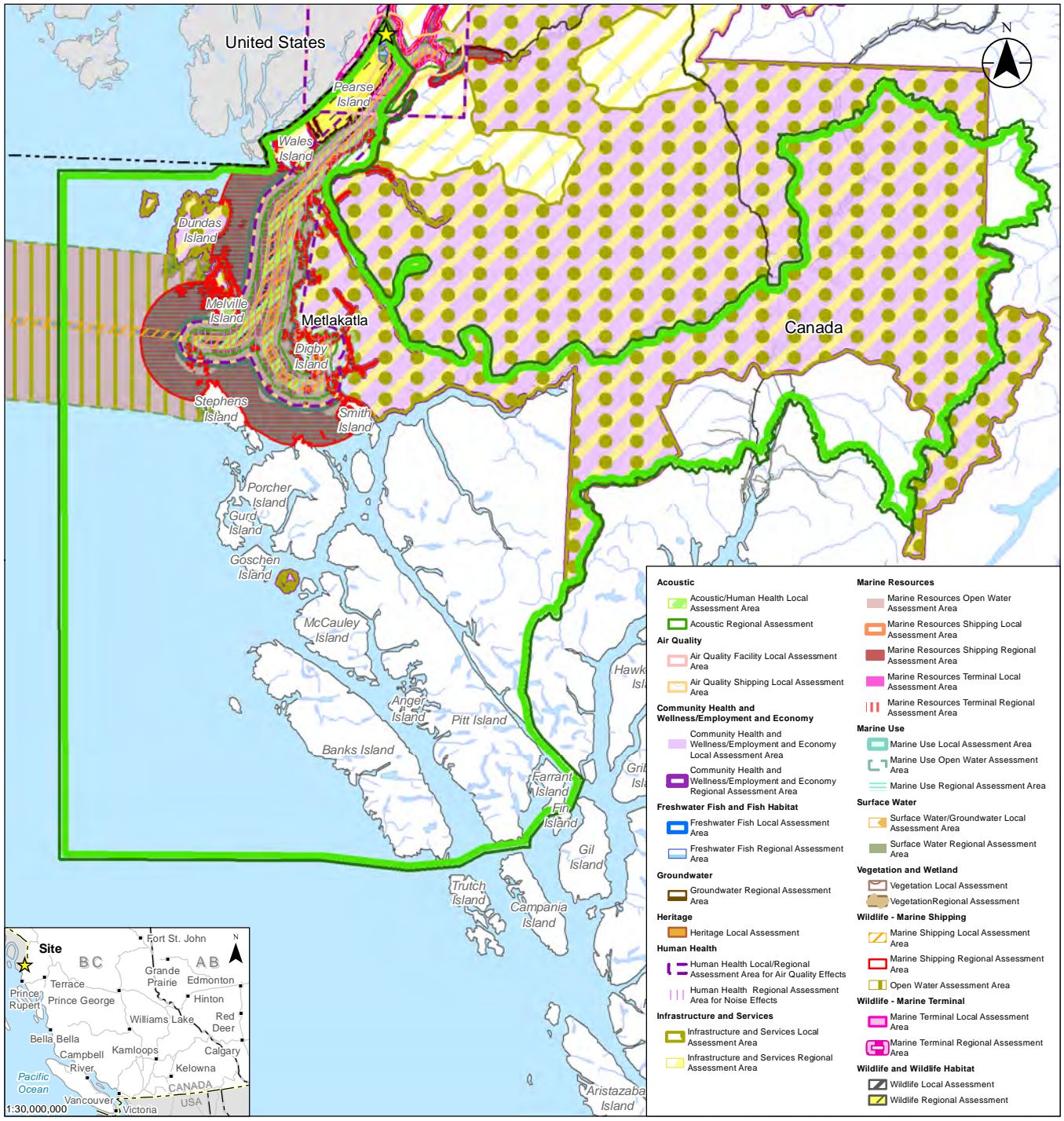
Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by TQULICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

Client/Project/Report
 Ksi Lisims LNG
 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-1
 Title
**Kitselas First Nation Traditional Territory
 Overview Map**

Notes
 1. Coordinate System: NAD 1983 BC Environment
 Albers
 2. Data Sources: DataBC, Government of British
 Columbia; Natural Resources Canada, Maxar,
 Rockies LNG

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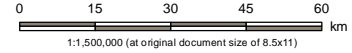


Acoustic	Marine Resources
Acoustic/Human Health Local Assessment Area	Marine Resources Open Water Assessment Area
Acoustic Regional Assessment	Marine Resources Shipping Local Assessment Area
Air Quality	Marine Resources Shipping Regional Assessment Area
Air Quality Facility Local Assessment Area	Marine Resources Shipping Terminal Local Assessment Area
Air Quality Shipping Local Assessment Area	Marine Resources Terminal Regional Assessment Area
Community Health and Wellness/Employment and Economy	Marine Use
Community Health and Wellness/Employment and Economy Local Assessment Area	Marine Use Local Assessment Area
Community Health and Wellness/Employment and Economy Regional Assessment Area	Marine Use Open Water Assessment Area
Freshwater Fish and Fish Habitat	Marine Use Regional Assessment Area
Freshwater Fish Local Assessment Area	Surface Water
Freshwater Fish Regional Assessment Area	Surface Water/Groundwater Local Assessment Area
Groundwater	Surface Water Regional Assessment Area
Groundwater Regional Assessment Area	Vegetation and Wetland
Heritage	Vegetation Local Assessment
Heritage Local Assessment	Vegetation Regional Assessment
Human Health	Wildlife - Marine Shipping
Human Health Local/Regional Assessment Area for Air Quality Effects	Marine Shipping Local Assessment Area
Human Health Regional Assessment Area for Noise Effects	Marine Shipping Regional Assessment Area
Infrastructure and Services	Open Water Assessment Area
Infrastructure and Services Local Assessment Area	Wildlife - Marine Terminal
Infrastructure and Services Regional Assessment Area	Marine Terminal Local Assessment Area
	Marine Terminal Regional Assessment Area
	Wildlife and Wildlife Habitat
	Wildlife Local Assessment
	Wildlife Regional Assessment



- ★ Site
- Marine Shipping Route
- - - Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory

- - - International Boundary
- Railway
- Watercourse
- Waterbody



Project Location: Pearce Island, BC
 Project Number: 123221820
 Prepared by TQULICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

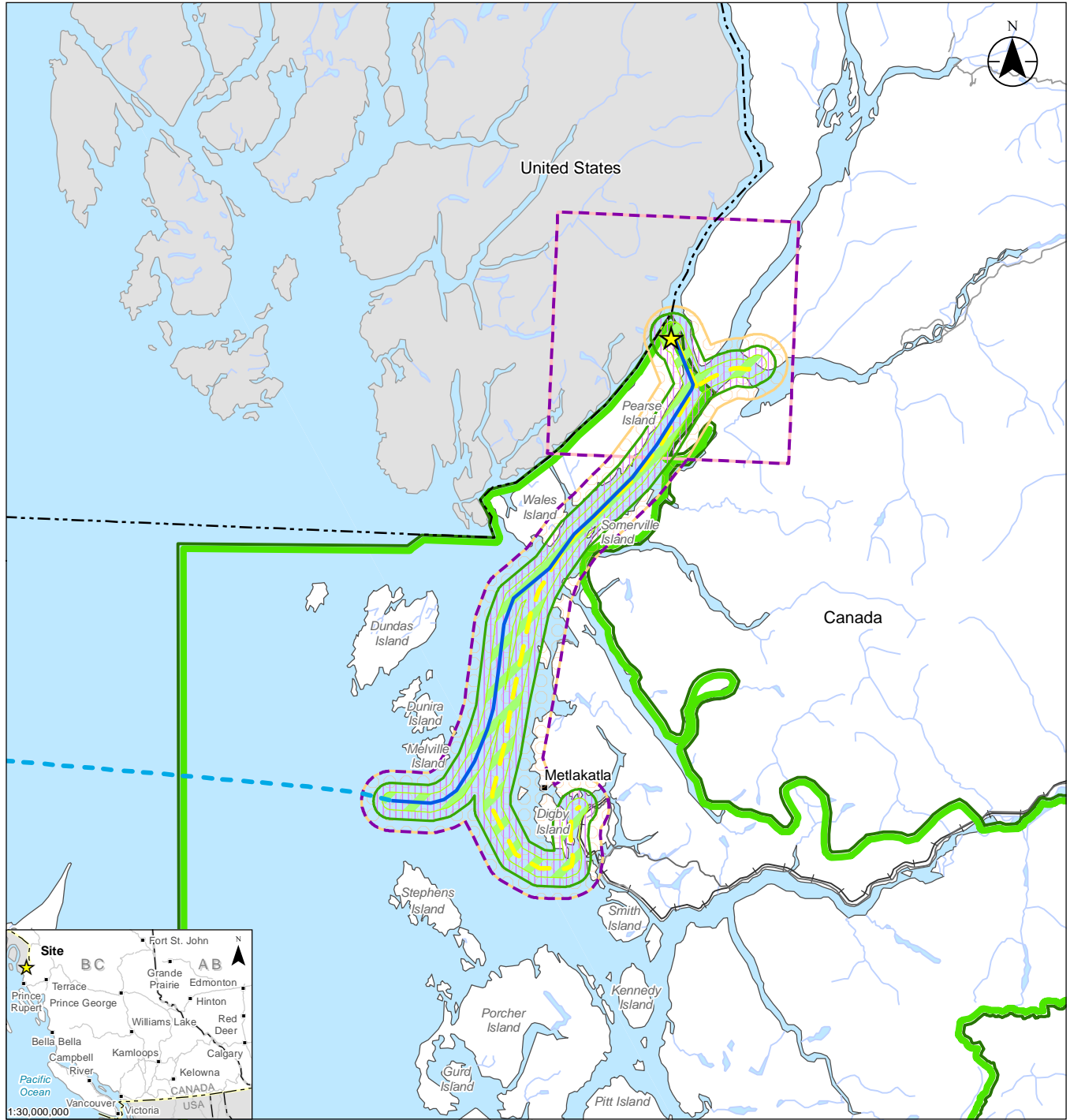
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Figure No.
15.14-2
 Title
Assessment Boundaries for Kitselas First Nation Traditional Territory Key Map

Notes
 1. Coordinate System: NAD 1983 BC Environment
 2. Data Sources: DataBC, Government of British Columbia; Natural Resources Canada, Maxar, Rockies LNG

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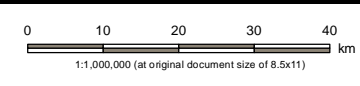


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- Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Acoustic/Human Health Local Assessment Area
- Acoustic Regional Assessment Area

- Air Quality**
- Air Quality Facility Local Assessment Area
- Air Quality Shipping Local Assessment Area
- Human Health**
- Human Health Local/Regional Assessment Area for Air Quality Effects
- Human Health Regional Assessment Area for Noise Effects
- International Boundary
- Railway
- Watercourse
- Waterbody



Project Location: Pearse Island, BC
 Project Number: 12321820
 Prepared by TQULICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

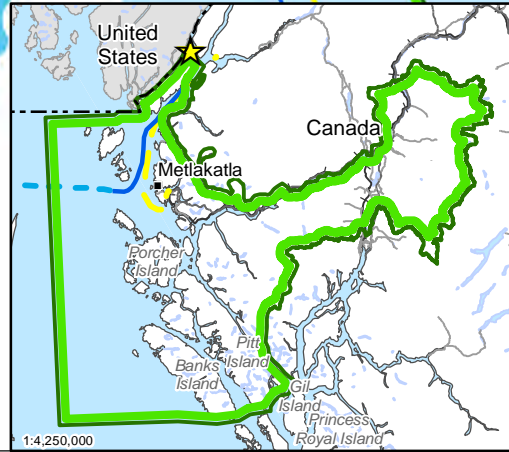
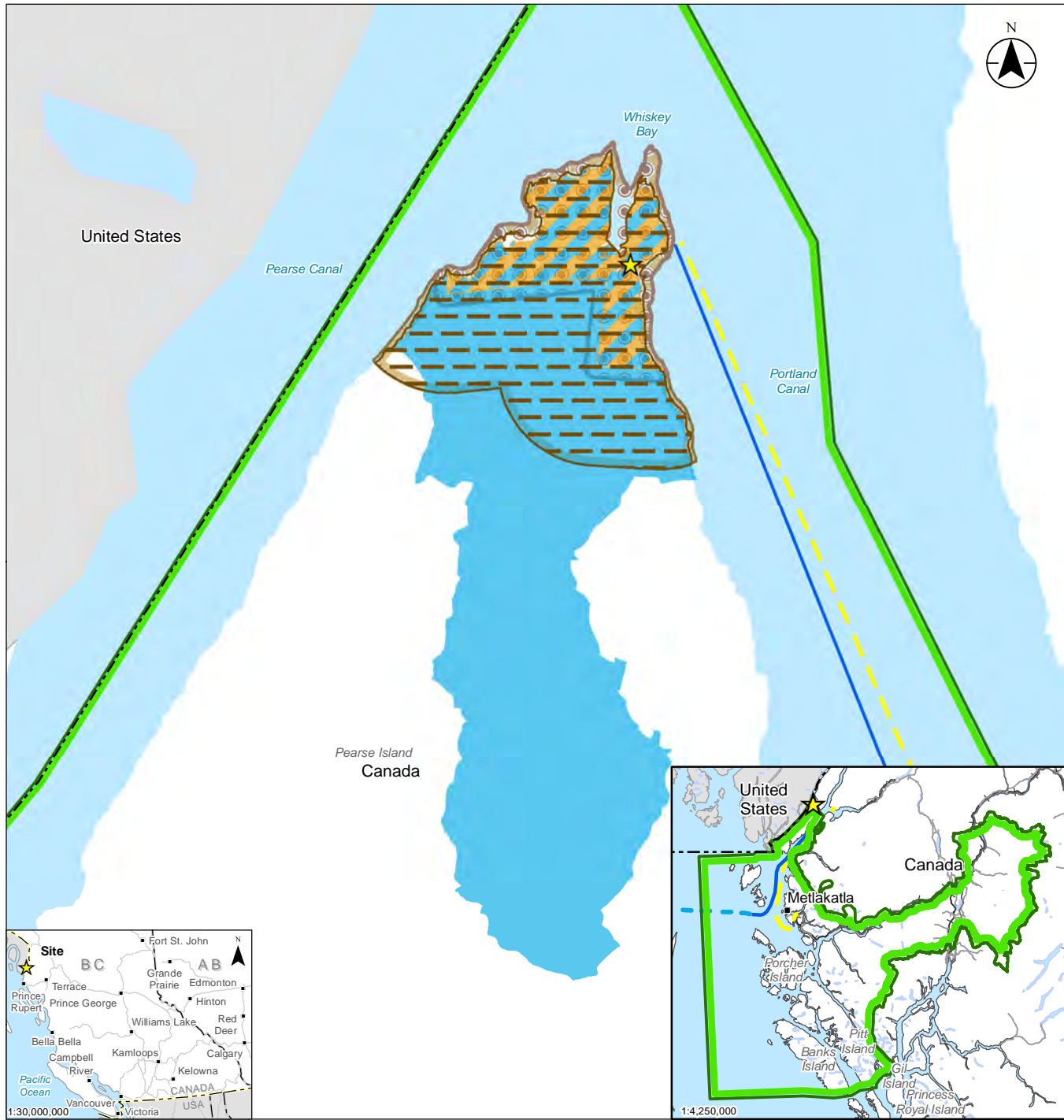
Client/Project/Report
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 Environmental Assessment - Impact Assessment

Figure No.
15.14-3

Title
Assessment Boundaries for Kitselas First Nation Traditional Territory Air Quality, Acoustic, and Human Health

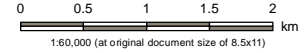
Notes
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 2. Data Sources: DataBC, Government of British Columbia; Natural Resources Canada, Maxar, Rockies LNG

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- Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory

- Groundwater**
 - Groundwater Regional Assessment Area
- Surface Water**
 - Surface Water/Groundwater Local Assessment Area
 - Surface Water Regional Assessment Area
- Vegetation and Wetland**
 - Vegetation Local Assessment Area
 - Vegetation Regional Assessment Area
 - International Boundary
 - Waterbody



Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by TQUILICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

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 Environmental Assessment - Impact Assessment

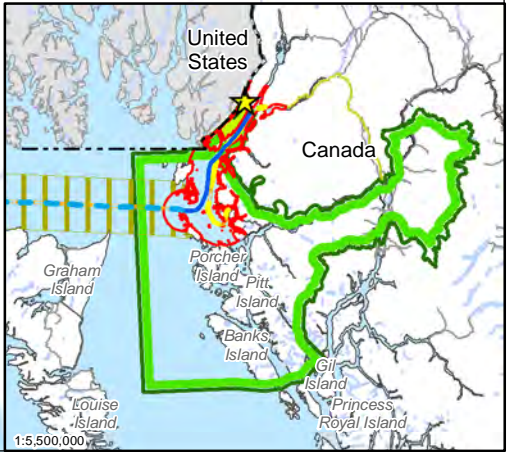
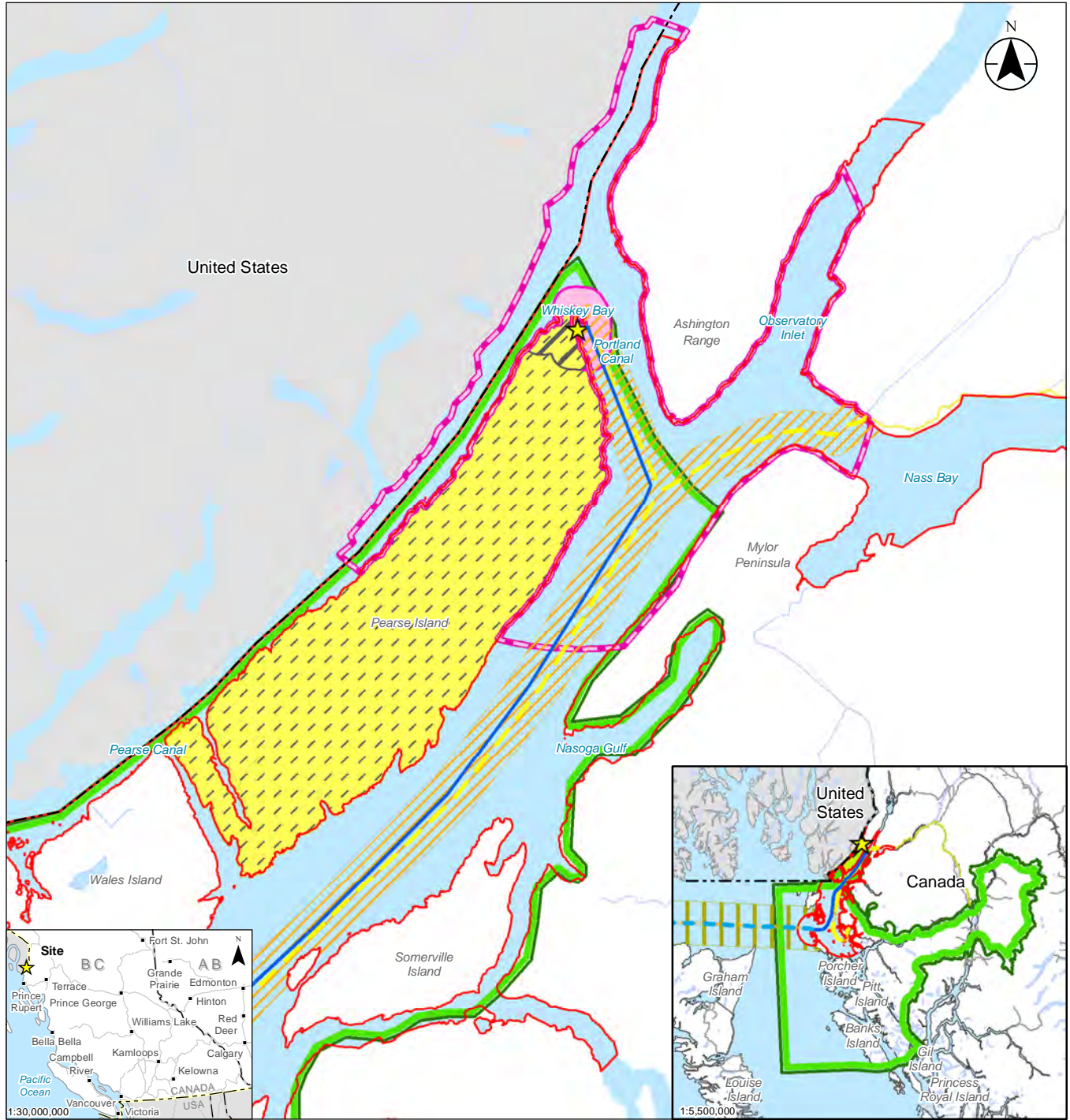
Figure No.
15.14-4

Title
Assessment Boundaries for Kitselas First Nation Traditional Territory Surface Water, Groundwater, and Vegetation and Wetlands

Notes
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 2. Data Sources: DataBC, Government of British Columbia; Natural Resources Canada, Maxar, Rockies LNG

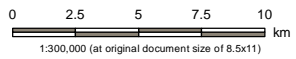
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- ★ Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory
- Wildlife - Marine Shipping**
- ▨ Marine Shipping Local Assessment Area
- ▨ Marine Shipping Regional Assessment Area
- ▨ Open Water Assessment Area

- Wildlife - Marine Terminal**
- ▨ Marine Terminal Local Assessment Area
- ▨ Marine Terminal Regional Assessment Area
- Terrestrial Wildlife and Wildlife Habitat**
- ▨ Wildlife Local Assessment Area
- ▨ Wildlife Regional Assessment Area
- International Boundary
- Watercourse
- Waterbody



Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by TQUILICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

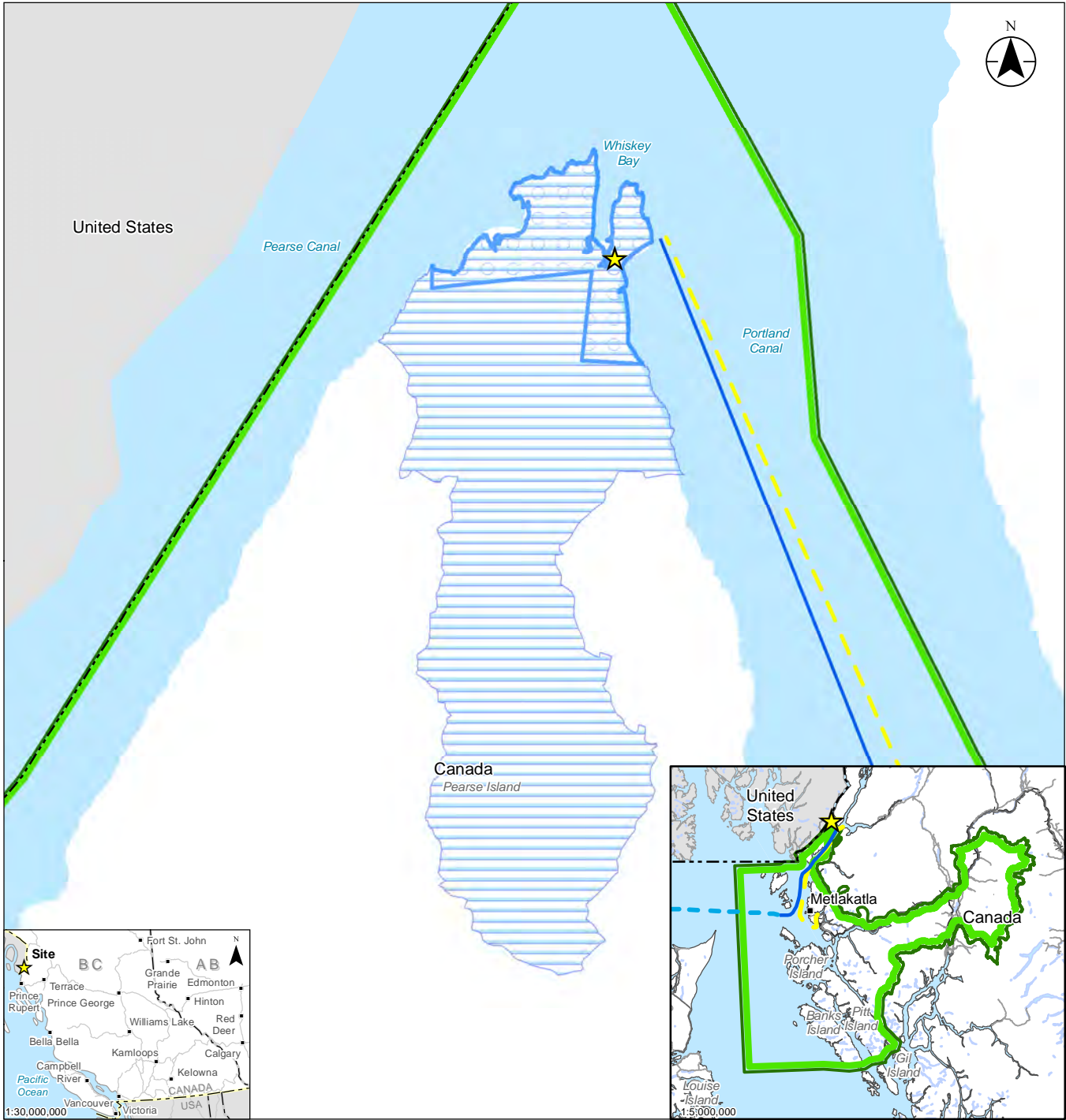
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 Ksi Lisims LNG
 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-5

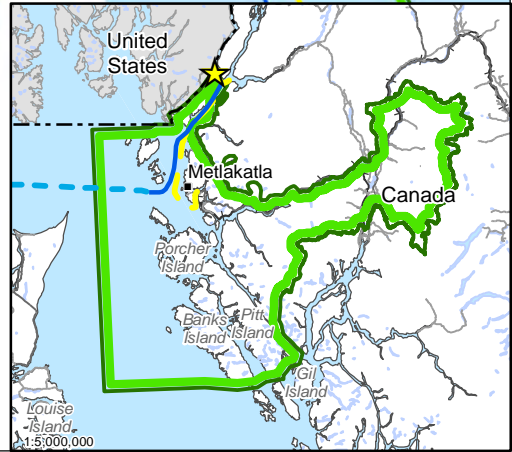
Title
Assessment Boundaries for Kitselas First Nation Traditional Territory Wildlife and Wildlife Habitat






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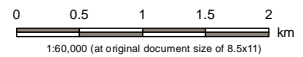


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-  Site
-  Marine Shipping Route
-  Open Water Marine Shipping Route
-  Materials and Supply Shipping Route
-  Kitselas First Nation Traditional Territory

- Freshwater Fish and Fish Habitat**
-  Freshwater Fish Local Assessment Area
 -  Freshwater Fish Regional Assessment Area
 -  International Boundary



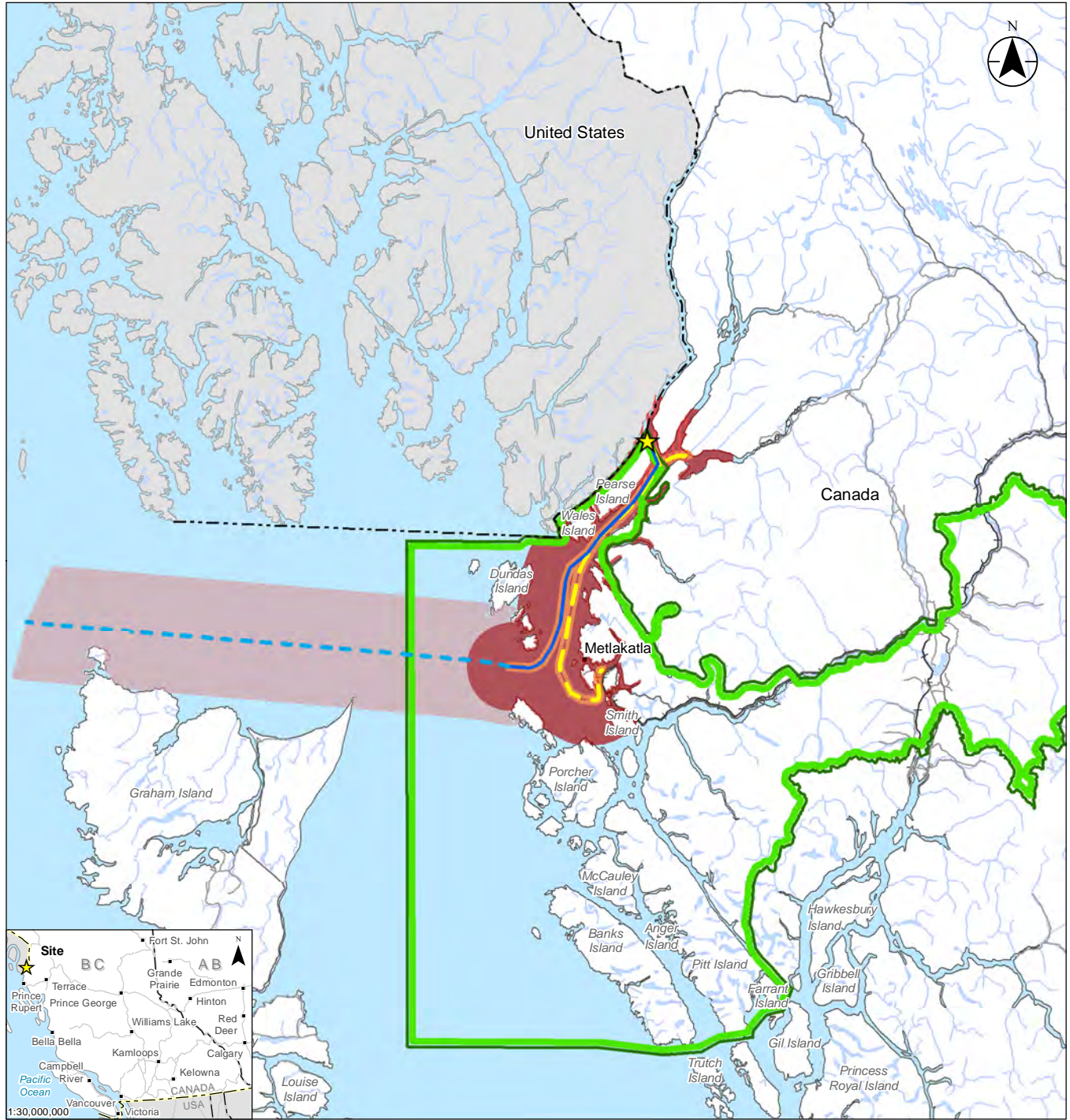
Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by TQUILICHINI on 20220915
 Requested by AGAUVREAU on 20220902
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 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-6

Title
Assessment Boundaries for Kitselas First Nation Traditional Territory Freshwater Fish and Fish Habitat

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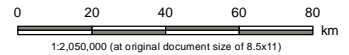


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- Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional

- Marine Resources**
- Marine Resources Open Water Assessment Area
 - Marine Resources Shipping Local Assessment Area
 - Marine Resources Shipping Regional Assessment Area
 - Marine Resources Terminal Local Assessment Area
 - Marine Resources Terminal Regional Assessment Area
 - International Boundary
 - Railway
 - Watercourse
 - Waterbody



Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by TQUILICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

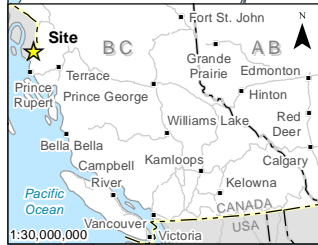
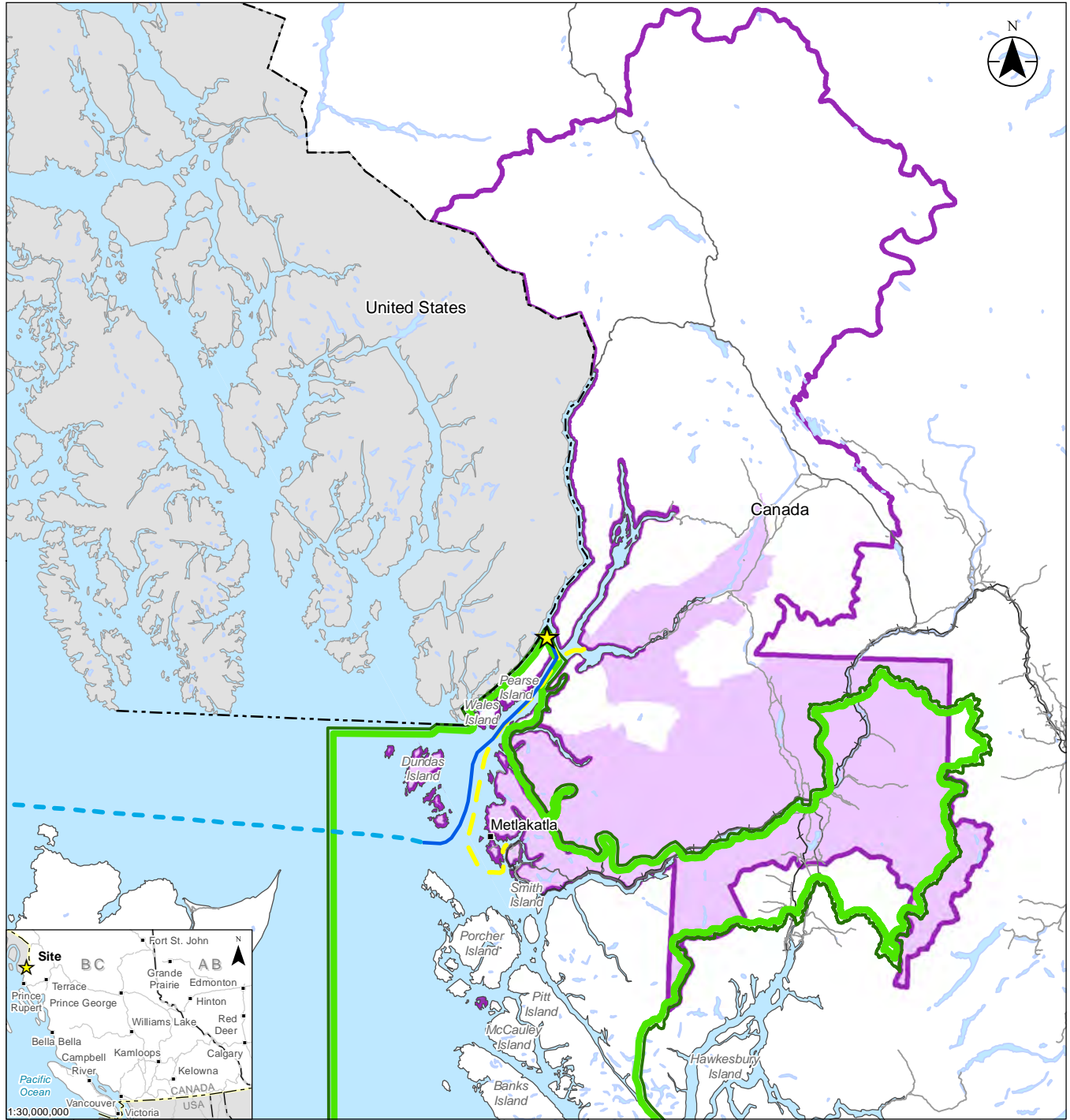
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 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-7

Title
Assessment Boundaries for Kitselas First Nation Traditional Territory, Marine Resources

Notes
 1. Coordinate System: NAD 1983 BC Environment
 2. Data Sources: DataBC, Government of British Columbia; Natural Resources Canada, Maxar, Rockies LNG

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- Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory

Community Health and Wellness/Employment and Economy

- Community Health and Wellness/Employment and Economy Local Assessment Area
- Community Health and Wellness/Employment and Economy Regional Assessment Area
- International Boundary
- Railway
- Waterbody

0 15 30 45 60
km
1:2,250,000 (at original document size of 8.5x11)



Project Location: Pearce Island, BC
 Project Number: 123221820
 Prepared by TQUILICHINI on 20220915
 Requested by AGAUVREAU on 20220902
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Client/Project/Report
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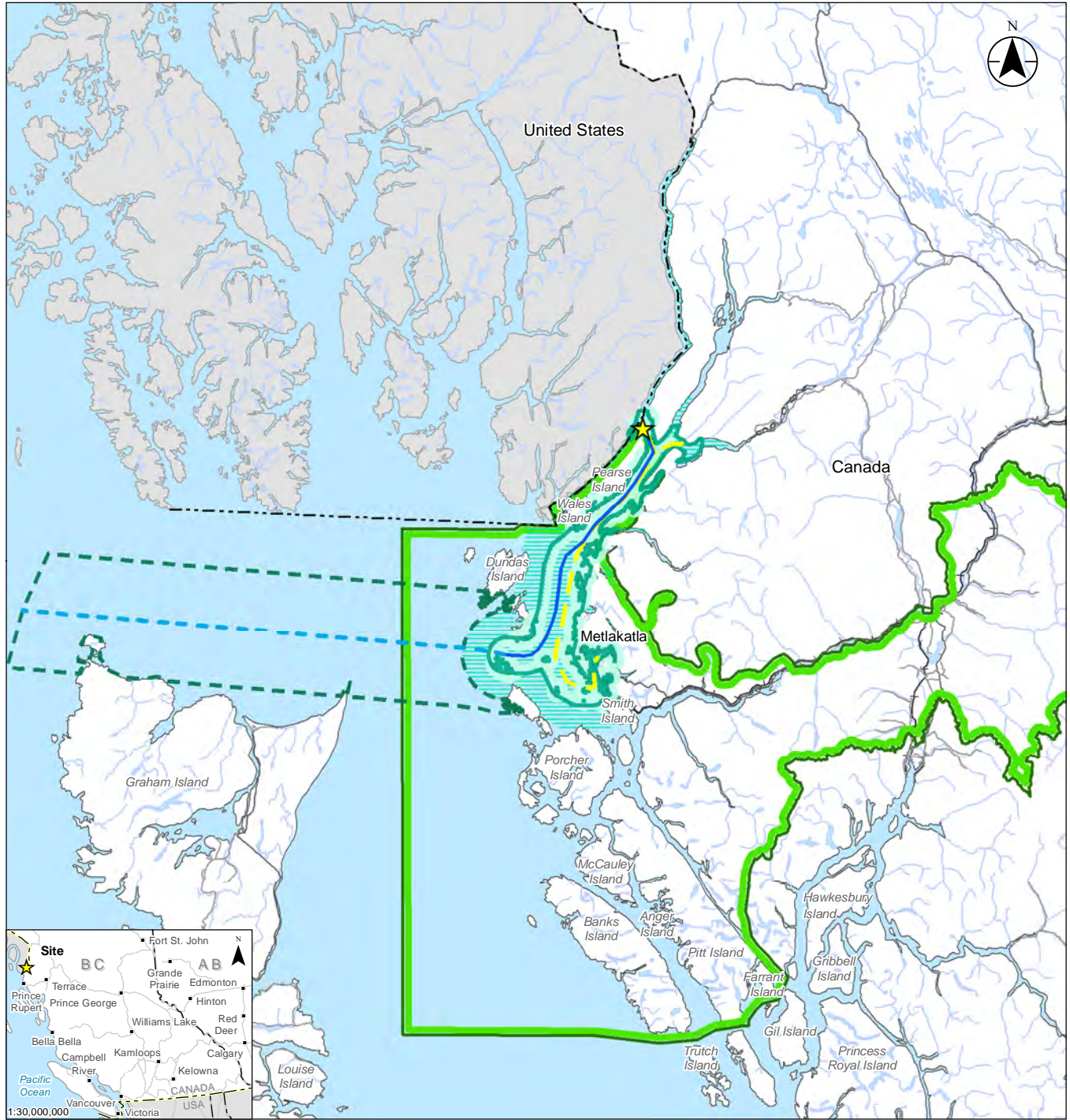
Figure No.
15.14-8

Title
**Assessment Boundaries for Kitselas First Nation
 Traditional Territory Employment and Economy
 and Community Health and Wellness**

Notes
 1. Coordinate System: NAD 1983 BC Environment
 Albers
 2. Data Sources: DataBC, Government of British
 Columbia; Natural Resources Canada, Maxar,
 Rockies LNG

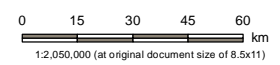
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- Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory

- Marine Use**
- Marine Use Local Assessment Area
 - Marine Use Open Water Assessment Area
 - Marine Use Regional Assessment Area
 - International Boundary
 - Railway
 - Watercourse
 - Waterbody



Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by TQUILICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

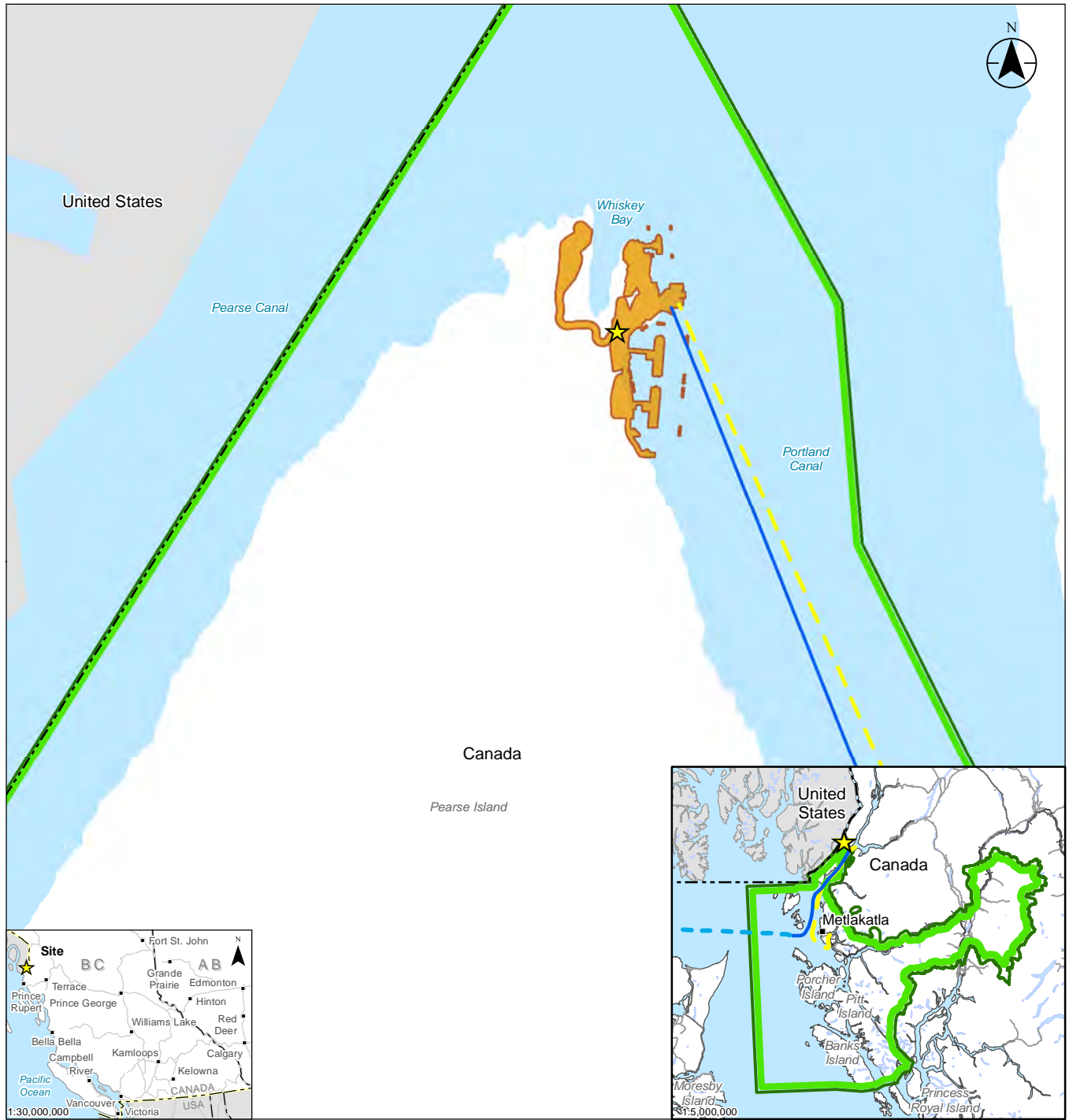
Client/Project/Report
 Ksi Lisims LNG
 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-9
 Title
Assessment Boundaries for Kitselas First Nation Traditional Territory, Marine Use

Notes
 1. Coordinate System: NAD 1983 BC Environment
 2. Data Sources: DataBC, Government of British Columbia; Natural Resources Canada, Maxar, Rockies LNG

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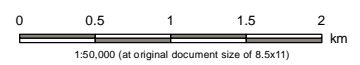


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- Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory

- Heritage**
- Archaeological and Heritage Resources Local/Regional Assessment Area
 - International Boundary
 - Waterbody



Project Location: Pearse Island, BC
 Project Number: 12321820
 Prepared by TQUILICHINI on 20220915
 Requested by AGAUVREAU on 20220902
 Checked by SMOSS on 20220915

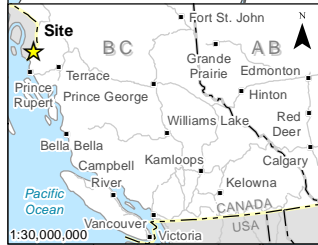
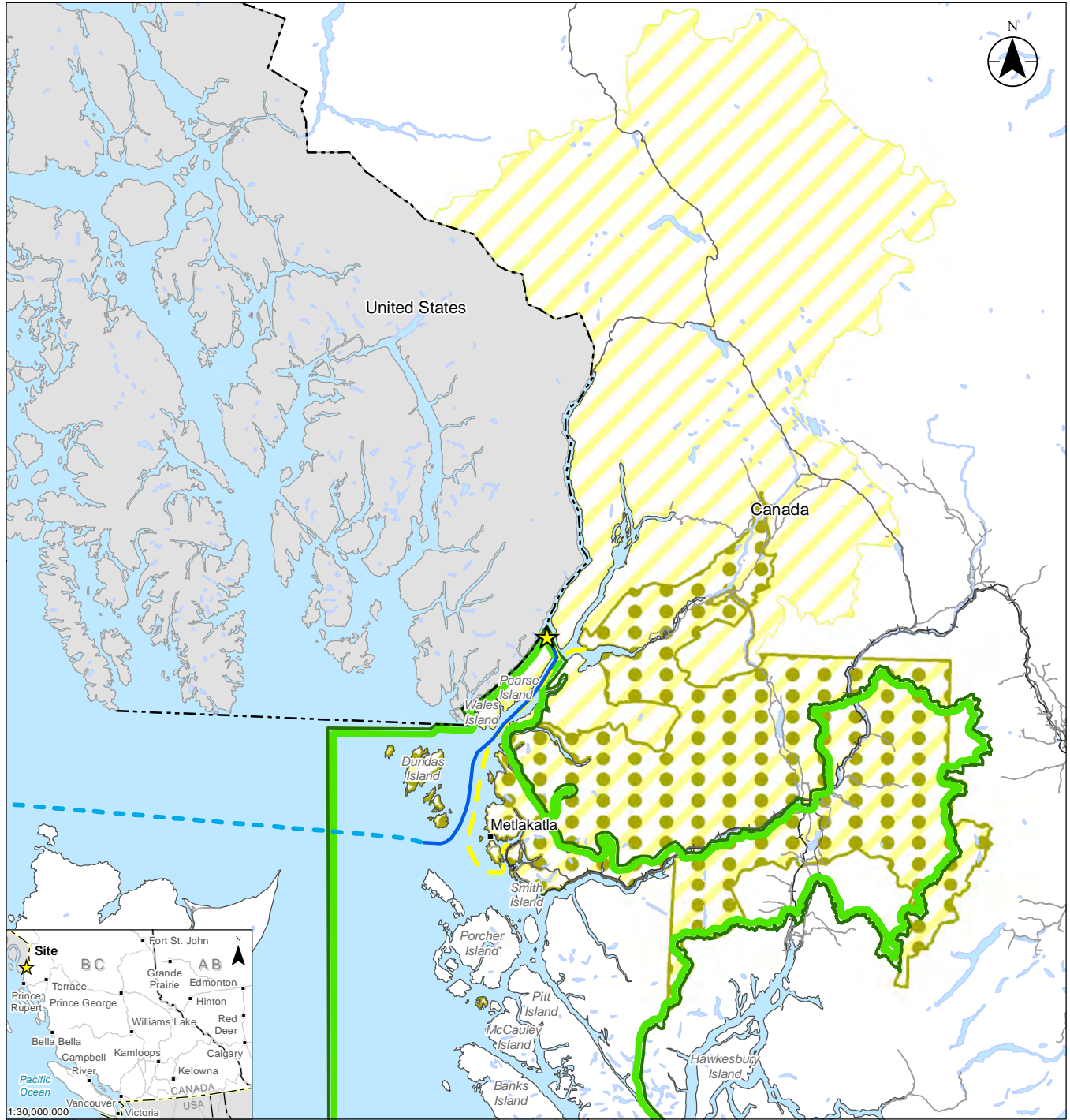
Client/Project/Report
 Ksi Lisims LNG
 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-10

Title
**Assessment Boundaries for Kitsumkalum
 First Nation Traditional Territory
 Archaeological Heritage and Resources**

Notes
 1. Coordinate System: NAD 1983 BC Environment
 Albers
 2. Data Sources: DataBC, Government of British
 Columbia; Natural Resources Canada, Maxar,
 Rockies LNG

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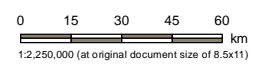


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- Site
- Marine Shipping Route
- Open Water Marine Shipping Route
- Materials and Supply Shipping Route
- Kitselas First Nation Traditional Territory

- Infrastructure and Services**
- Infrastructure and Services Local Assessment Area
 - Infrastructure and Services Regional Assessment Area
 - International Boundary
 - Railway
 - Waterbody



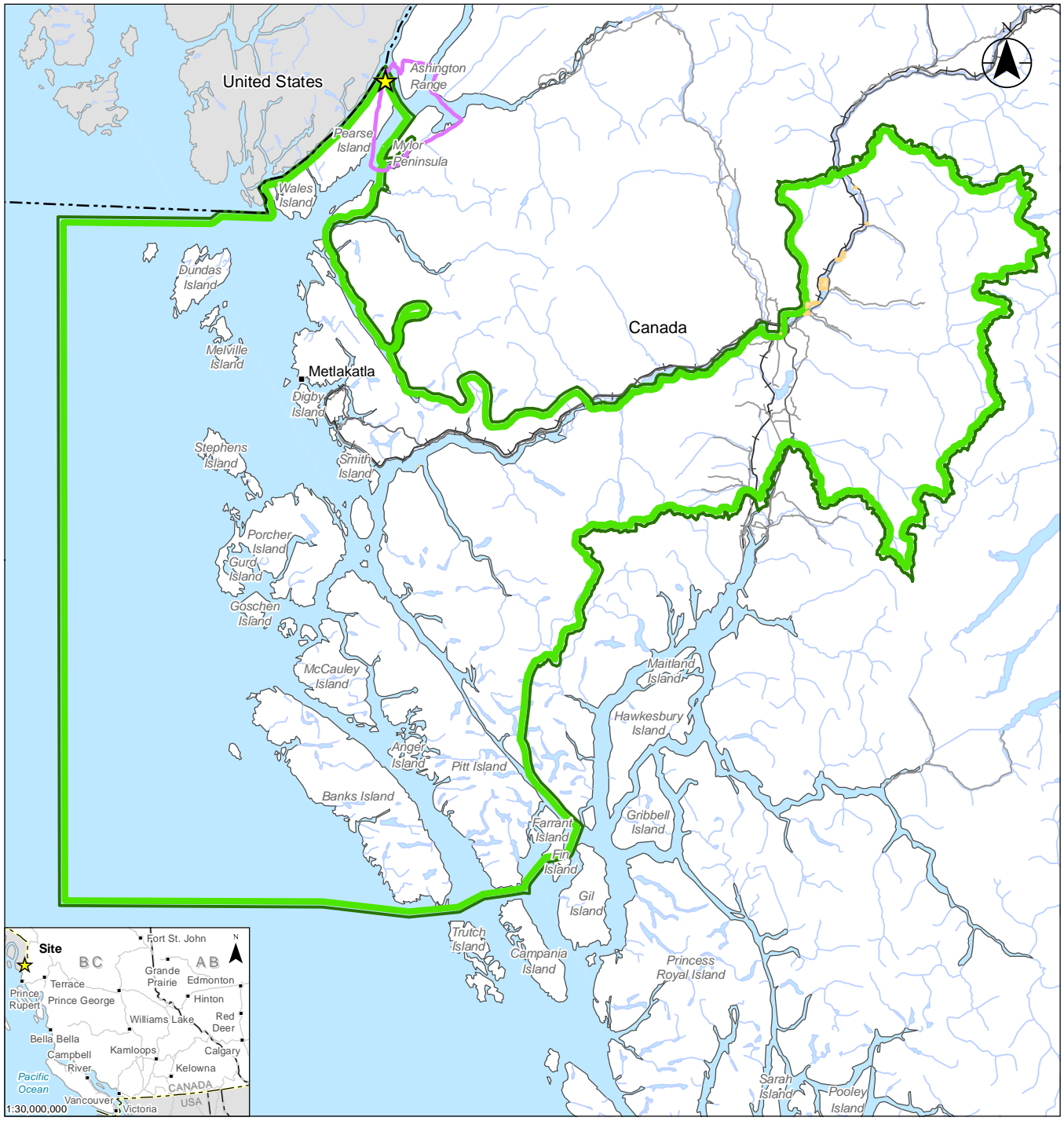
Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by TQUILICHINI on 20221202
 Requested by AGAUVREAU on 20221121

Notes
 1. Coordinate System: NAD 1983 BC Environment
 Albers
 2. Data Sources: DataBC, Government of British
 Columbia; Natural Resources Canada, Maxar,
 Rockies LNG

Client/Project/Report
 Ksi Lisims LNG
 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-11
 Title
**Assessment Boundaries for Kitselas First Nation
 Traditional Territory Infrastructure and Services**

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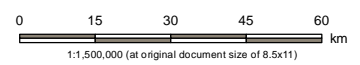


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- ★ Site
- Kitselas First Nation Traditional Territory
- Transmission Line Assessment Area

- International Boundary
- Railway
- Watercourse
- Waterbody
- Reserve Land



Project Location: Pearse Island, BC
 Project Number: 123221820
 Prepared by: TQULICHINI on 20230710
 Requested by: AGAVREAU on 20230705
 Checked by: XX on 20230710

Notes
 1. Coordinate System: NAD 1983 BC Environment
 Albers
 2. Data Sources: DataBC, Government of British
 Columbia; Natural Resources Canada, Maxar,
 Rockies LNG

Client/Project/Report
 Ksi Lisims LNG
 Natural Gas Liquefaction and Marine Terminal
 Environmental Assessment - Impact Assessment

Figure No.
15.14-12
 Title
**Transmission Line Assessment Area &
 Kitselas First Nation Traditional Territory**

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