

KWISPIA LNG

Co-managed by



ANCIENT SPIRIT, MODERN MIND



PROJECT DESCRIPTION EXECUTIVE SUMMARY

October 2018

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1 General Information and Contacts

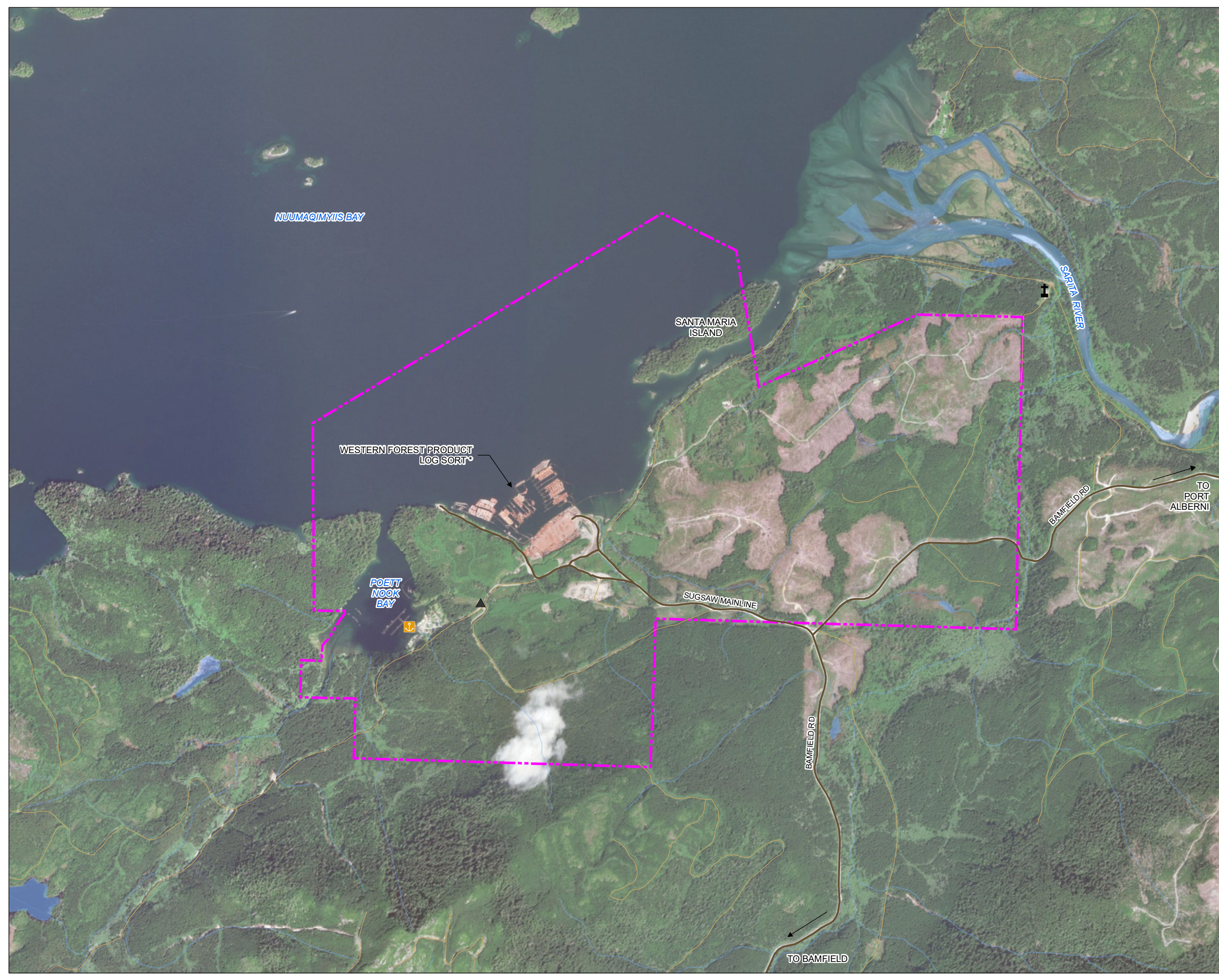
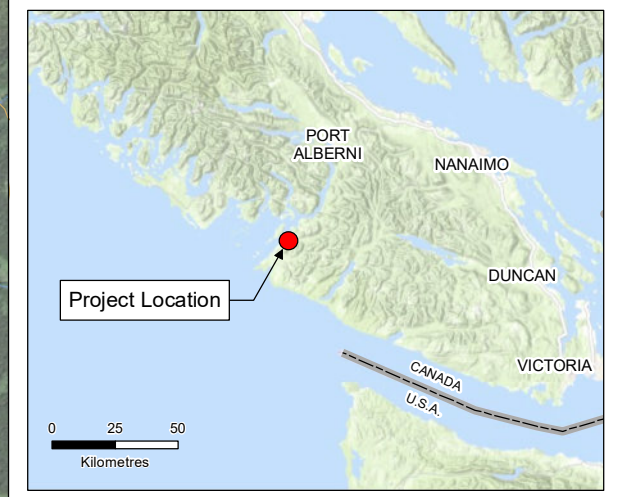
1.1 Project Overview

Kwispaa LNG (CF) Limited Partnership (the “Developer”), a subsidiary of Steelhead LNG Limited Partnership (“Steelhead LNG”), is proposing to develop, construct, and operate a liquefied natural gas (“LNG”) export facility at Nuumaqimiyis Bay (also known as Sarita Bay) on the Alberni Inlet on Vancouver Island, British Columbia (“BC”). The proposed Kwispaa LNG Project (“Project”) will produce and export approximately 24 million tonnes per annum (“mtpa”) of LNG at full build-out and will have an initial lifespan for each phase of the Project of approximately 25 years. The Project lifespan may be extended through regular maintenance and component replacement.







The Project will source Canadian natural gas via a new pipeline between northeast BC and the west coast of Vancouver Island to the Project, using a combination of existing and new multi-utility corridors. Feed gas received at site will be pipeline quality; however, further gas processing will be required as part of the Project to remove components of the feed gas that may not meet LNG process specifications before entering the liquefaction trains where it will be chilled to its liquid form at approximately -162 degrees Celsius (“°C”) to produce LNG for export to global markets.

The Project will include jetty-moored floating and onshore components. The Kwispaa LNG Area, shown in **Figure 1-1**, is the area where all Project components (aside from a potential electric transmission line) are anticipated to be located; it includes an approximate 500-metre (“m”) buffer (safety awareness zone) around the anticipated marine facility components. The approximate size of the Kwispaa LNG Area is 7.3 square kilometres (“km²”) or 730 hectares (“ha”), which comprises 255 ha of marine area and 475 ha of upland area. The arrangement of Project components within the Kwispaa LNG Area will be finalized based on ongoing Project design.

Proposed Kwispaa LNG Area Location



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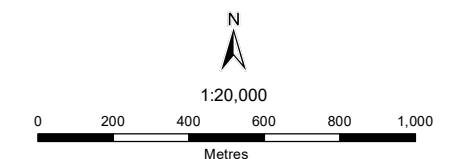
-  Kwispaa LNG Area (Sarita Cultural Protection Line)
-  Campground
-  Cemetery
-  Marina
-  Loose Road (Maintained Gravel)
-  Rough Road (Unmaintained Gravel or Dirt)

Notes

1. All mapped features are approximate and should be used for discussion purposes only.
2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

- Marina: BCMCA
- Campground, Roads, Hydrological Features: Province of BC
- Aerial Image: ESRI World Imagery
- Inset Basemap: ESRI World Topo Base



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1.2 Proponent Information

The Project is being developed through a unique co-management relationship between Huu-ay-aht First Nations (“Huu-ay-aht”) and the Developer (together the “Kwispaa LNG Team”). Huu-ay-aht is a self-governing, modern treaty Nation with lands that are located in the Barkley Sound region on the west coast of Vancouver Island at the entrance to Alberni Inlet. A signatory to the *Maa-nulth First Nations Final Agreement* (“Maa-nulth Final Agreement”), the first modern-day treaty to be concluded on Vancouver Island, Huu-ay-aht has full ownership and jurisdiction over more than 8,200 ha of land within the Nation’s ɥahuuɥi (pronounced ha-houlthee) (traditional territory), allowing the Nation to govern the lands under a “made in Huu-ay-aht” Constitution.

The Developer is an independent BC-based energy partnership focused on developing the Project to deliver Canadian LNG to global markets, benefiting local communities, BC, Canada, investors, and international customers.

Contact information for the Kwispaa LNG Team and the main contact person for the environmental assessment (“EA”) process are provided in **Table 1-1**.

Table 1-1 Proponent Information and Key Contacts

Name of Designated Project	Kwispaa LNG Project
Proponent Name	Kwispaa LNG (CF) Limited Partnership
Proponent Corporate Address	1075 West Georgia, 22nd Floor Vancouver, BC Canada V6E 3C9
Proponent Contact Information	Email: info@kwispaaing.com Phone: 604 235 3800
Company Website	www.kwispaaing.com
Company President	Victor Ojeda
Principal Contact Person for Kwispaa LNG Project Description	Tiffany Murray VP, External Affairs tiffany.murray@steelheadlng.com 604 235 3800

1.3 Co-management Relationship

Since 2014, Steelhead LNG and Huu-ay-aht have been engaged in discussions to establish a co-management relationship guiding an LNG export project located in Huu-ay-aht’s ɥahuuɥi. In May 2014, Steelhead LNG and Huu-ay-aht entered into an Opportunity Development Agreement, which established the principles and processes for exploring the development of an LNG project on Huu-ay-aht lands. In addition, Huu-ay-aht and Steelhead LNG undertook a series of community engagement sessions in 2014 within Huu-ay-aht communities to share information about the Project and listen to Huu-ay-aht citizens to understand any questions, concerns, and interests in respect of the Project. Following this early

engagement, in November 2014, HUU-ay-aht held their annual People’s Assembly, which included a motion to support the exploration of the Project and lease HUU-ay-aht-owned lands to Steelhead LNG. HUU-ay-aht citizens voted in favour of the motion, providing a mandate for HUU-ay-aht to negotiate lifecycle agreements with Steelhead LNG.

Following the 2014 People’s Assembly, Steelhead LNG and HUU-ay-aht leadership spent three years negotiating Relationship Agreements, which were framed by 14 conditions approved in the 2014 People’s Assembly and developed with input from HUU-ay-aht citizens following extensive consultation undertaken by HUU-ay-aht. Through these steps, HUU-ay-aht’s elected Government, Ha’wiih Council, and HUU-ay-aht citizens have given their free, prior, and informed consent to the Project in accordance with HUU-ay-aht’s laws and traditions.

The Relationship Agreements and Project design incorporate key HUU-ay-aht interests related to the Project’s potential effects on the environment, economy, facility design, and marine safety.

1.4 Environmental Assessment Regulatory Requirements

The Kwispa LNG Team anticipates the Project will be subject to a review under both the *Canadian Environmental Assessment Act, 2012*, SC 2012, c. 19 (“CEAA 2012”) and the British Columbia *Environmental Assessment Act*, SBC 2002, c. 43 (“BCEAA”). Under CEAA 2012, the Project meets the criteria for a designated project under the Regulations Designating Physical Activities (Government of Canada 2012) (**Table 1-2**). Under BCEAA, the Project meets the criteria for a reviewable project under the Reviewable Projects Regulation (Government of BC 2002) (**Table 1-3**).

Table 1-2 Regulations Designating Physical Activities

Section	Physical Activity/Threshold	Relevant Project Component/Capacity
2a	The construction, operation, decommissioning and abandonment of a new fossil fuel-fired electrical generating facility with a production capacity of 200 megawatts (“MW”) or more	The Project may include a power generation facility with a capacity of up to approximately 1,000 MW (at full build-out), pending outcome of power study with BC Hydro
14d	The construction, operation, decommissioning, and abandonment of a new facility for the liquefaction, storage or regasification of LNG, with an LNG processing capacity of 3,000 tonnes (“t”)/day or more or an LNG storage capacity of 55,000 t or more	The Project’s LNG processing capacity will be a nameplate 24 mtpa (at full build-out), which averages approximately 69,164 t/day. The facilities will also be capable of storing up to approximately 1.2 million cubic metres (“m ³ ”) of LNG
27c	The construction, decommissioning, and abandonment of a marine terminal designed to handle vessels larger than 25,000 deadweight tonnage unless the terminal is located on lands that are routinely and have been historically used as a marine terminal or that are designated for such use in a land use plan that has been the subject of public consultation	The Project will include development of a marine terminal capable of handling LNG carriers of more than 25,000 deadweight tonnage

Source: CEAA 2012

Table 1-3 Reviewable Projects Regulation Criteria

Project Category	Criteria/Threshold	Relevant Project Component
Part 4 – Energy Projects		
Power Plants (Table 7 within the Reviewable Projects Regulation)	A new facility with a rated nameplate capacity of ≥ 50 MW of electricity that is a thermal electric power plant	The Project may include a power generation facility with a capacity of up to approximately 1,000 MW (at full build-out), pending outcome of power study with BC Hydro
Electric Transmission Lines (Table 7 within the Reviewable Projects Regulation)	A new electric transmission line > 40 km in length on a new right-of-way	The Kwispaa LNG Team is currently investigating the use of Provincial grid power from BC Hydro to partially or entirely satisfy the requirement for a power generation facility. Using Provincial grid power would require construction of an electric transmission line more than 40 km in length
Energy Storage Facilities (Table 8 within the Reviewable Projects Regulation)	A new energy storage facility with the capability to store an energy resource in a quantity that can yield by combustion > 3 picojoules of energy	The Project will be capable of storing an amount of LNG that can yield > 3 picojoules of energy by combustion
Part 8 – Transportation Projects		
Marine Port Facilities (Other than Ferry Terminals) (Table 14 within the Reviewable Projects Regulation)	Construction of a new facility or modification of an existing facility, if the work entails dredging, filling, or other direct physical disturbance of: <ul style="list-style-type: none"> $> 1,000$ m of linear shoreline, or ≥ 2 ha of foreshore or submerged land, or a combination of foreshore and submerged land, below the natural boundary of a marine coastline or marine estuary 	Construction of the terminal and associated infrastructure is expected to result in the disturbance of approximately 1,250 m of linear shoreline and > 2 ha of foreshore and submerged land

Source: BCEAA

Note: $>$ - greater than; \geq - greater than or equal to

If both the BC Environmental Assessment Office (“BC EAO”) and Canadian Environmental Assessment Agency (“CEA Agency”) determine that EAs are required, it is anticipated the BC EAO will request that the Federal Minister of Environment and Climate Change approve the substitution of the Provincial EA process for the Federal EA process. If substitution is approved, BC EAO will conduct a single EA for the Project that addresses the conditions in the Federal Minister of Environment and Climate Change’s Substitution Decision. At the end of the EA, both the Federal Minister of Environment and Climate Change and the responsible Provincial ministers will make separate decisions regarding the Project. If substitution is not approved, it is anticipated that the BC EAO and the CEA Agency would coordinate their respective EA processes.

According to Chapter 22 of the Maa-nulth Final Agreement, Federal and Provincial laws apply in relation to EA on Maa-nulth First Nation Lands (MFNFA 2009). Maa-nulth First Nation Governments may each make laws applicable on their respective lands to protect, preserve, and conserve the environment, including:

- prevention, mitigation, and remediation of pollution and degradation of the environment;
- waste management, including solid wastes and wastewater;
- protection of local air quality; and
- environmental emergency response (MFNFA 2009).

Under the Maa-nulth Final Agreement, Huu-ay-aht has the ability to draw down authority for EA within Huu-ay-aht lands; however, Huu-ay-aht will not draw down that authority in respect of the Project.

1.5 Regional Environmental Study

The Project is not located in an area that has been the subject of a Federal regional environmental study as defined in CEAA 2012.

2 Project Information

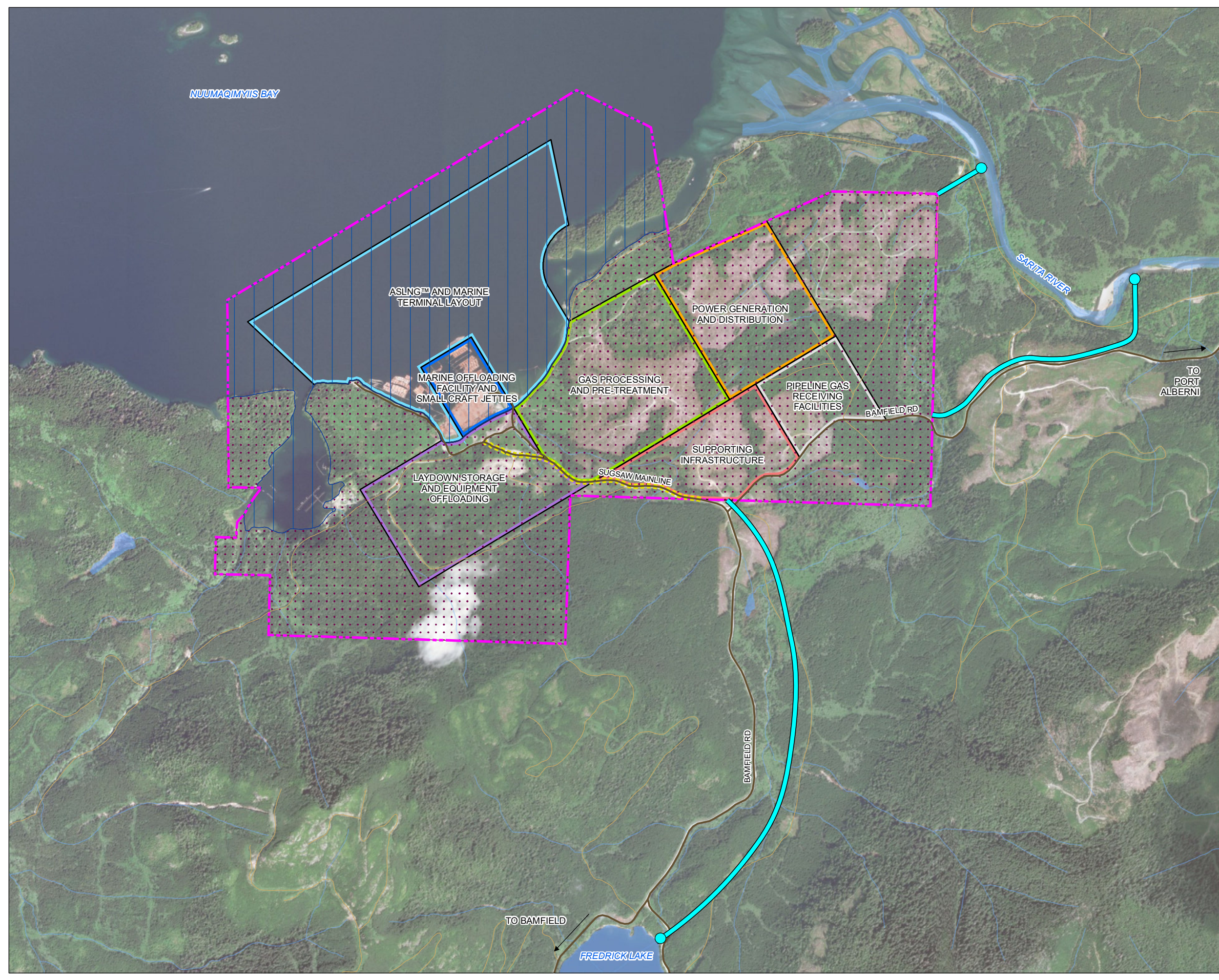
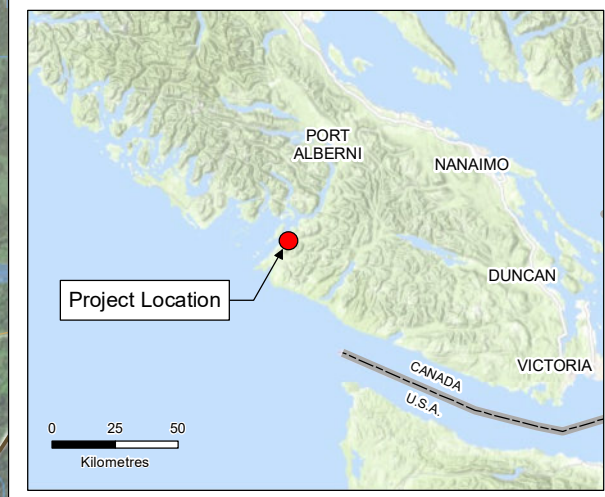
2.1 General Description and Objectives

Over the last decade, global demand for LNG has steadily increased in Asia and Europe. The Project will help meet this increasing demand, connecting plentiful natural gas resources in the Western Canadian Sedimentary Basin with markets worldwide to reduce global air pollution and greenhouse gases while contributing to the advancement of the LNG sector in BC. The Project will promote the use of the cleanest-burning fossil fuel, generate economic opportunities for BC-based businesses, and provide long-term revenue generation for local, Provincial, and Canadian economies. In addition, the Project will contribute to economic reconciliation in BC by recognizing and implementing Huu-ay-aht authority over economic development on Huu-ay-aht lands, and will assist Huu-ay-aht in implementing the right to self-determination.
















2.2 Project Components

The Project will include up to four at-shore LNG (“ASLNG™”) production units that liquefy natural gas, each with a production capacity of approximately 6 mtpa (up to approximately 24 mtpa at full build-out), as well as integrated LNG storage of up to approximately 1.2 million cubic metres (“m³”). The ASLNG™ production units will be permanently moored to fixed marine jetties with supporting infrastructure on land. In addition to the ASLNG™ production units, which will include integrated LNG storage, the Project will incorporate a feed gas distribution system; onshore gas and pre-treatment; power generation, supply aggregation, and distribution facility; marine terminals and jetties; and balance of plant-supporting infrastructure. The Kwispa LNG Team is currently working with BC Hydro to explore options to power the Project with electricity provided from the Provincial grid. The design information presented herein is conceptual and will be refined and finalized as Project design advances. A conceptual facility layout is presented in **Figure 2-1**, and the expected shipping route is shown in **Figure 2-2**.

Proposed Kwispa LNG Project



Legend

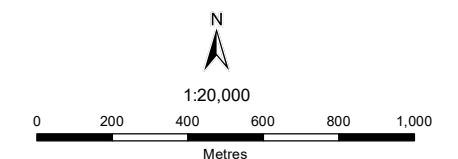
	Kwispa LNG Area (Sarita Cultural Protection Line)		Project Components
	Marine Project Components		ASLNG™ and Marine Terminal Layout
	Onshore Project Components		Gas Processing and Pre-Treatment
	Water Supply Intake and Pipe Option		Laydown Storage and Equipment Offloading
	Road to be Upgraded		Marine Offloading Facility and Small Craft Jetties
	Loose Road (Maintained Gravel)		Pipeline Gas Receiving Facilities
	Rough Road (Unmaintained Gravel or Dirt)		Power Generation and Distribution
			Supporting Infrastructure

Notes

1. All mapped features are approximate and should be used for discussion purposes only.
2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

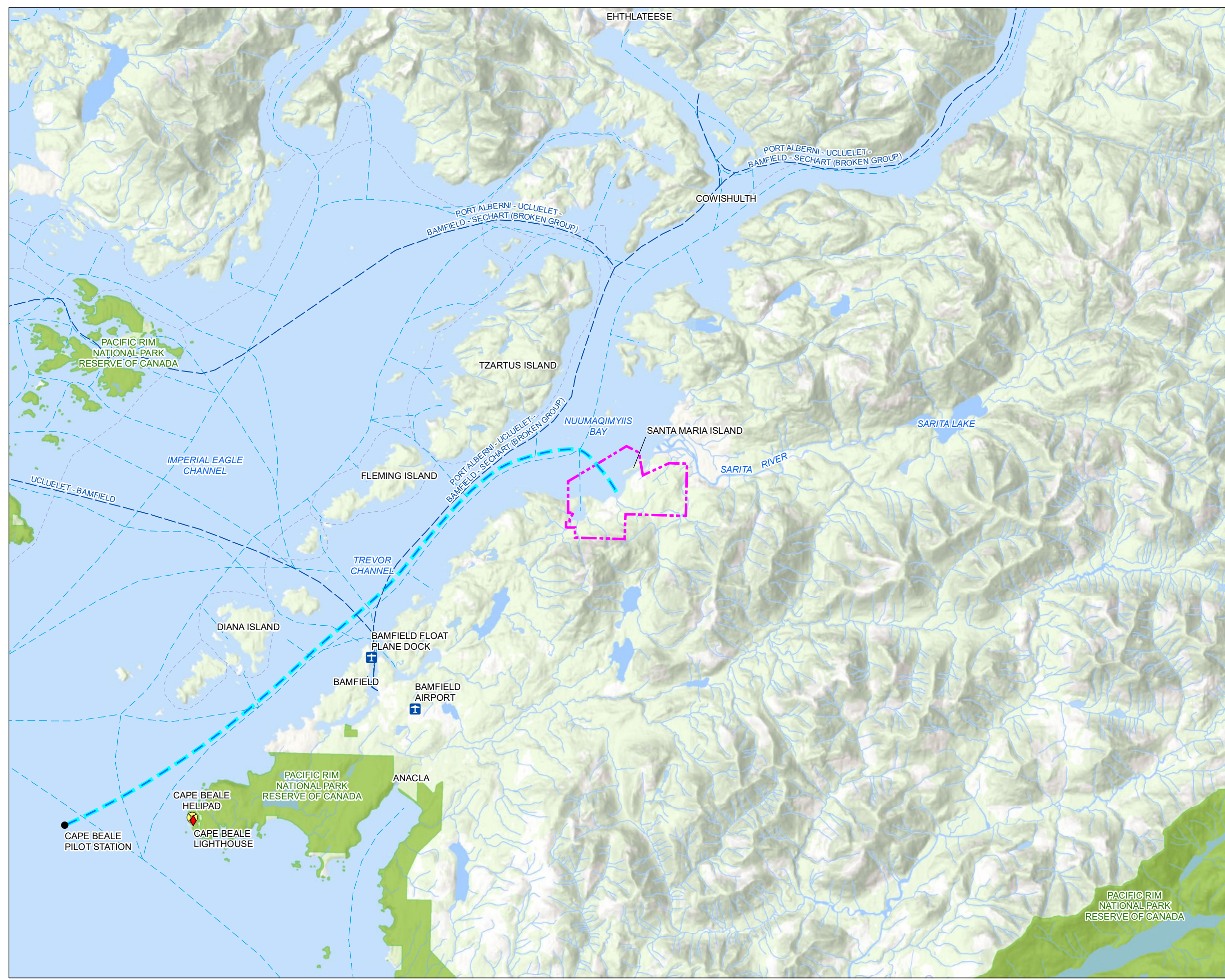
Sources

- Marina: BCMCA
- Campground, Roads, Hydrological Features: Province of BC
- Aerial Image: ESRI World Imagery
- Inset Basemap: ESRI World Topo Base















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Expected Shipping Route



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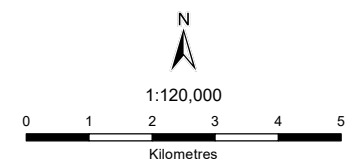
 Kwispaa LNG Area	 Canadian Exclusive Economic Zone (EEZ)
 Airport	 International Shipping Lanes (only shown between Vancouver, Seattle, and J-Buoy)
 Helipad	 National Park
 Lighthouse	
 Pilot Station	
 Kwispaa Shipping Route	
 Coastal Ferry Route	
 Recreational Boating Route	
 Sea Kayaking Route	

Notes

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2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

- Coastal Ferry Routes, Recreational Boating Routes, Sea Kayaking Routes: BCMCA
- Pilot Station: BC Coast Pilots
- International Shipping Lanes: NOAA
- National Park, EEZ: Government of Canada
- Basemap: ESRI World Topo Base



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The Project will be supplied by a natural gas pipeline terminating within the Kwispa LNG Area. It is expected that the pipeline will include a land or marine-based approach as it enters the receiving area, although the exact route of the pipeline is yet to be determined. The natural gas receiving facility, as part of the natural gas pipeline project, will consist of pipeline isolation valves for emergency isolation, a metering station, and a pig receiver to ensure a smooth flow of natural gas. The area downstream of the metering station, as part of the Project, will consist of a feed gas distribution system to the liquefaction facilities, including pressure let-down facilities, power generation, gas processing, and ancillary systems. At full build-out, approximately 113 million m³ of natural gas per day will be received at the pipeline receiving facility.

Approximately 250 MW of power will be required for each ASLNG™ production unit, with a capacity of 6 mtpa (1,000 MW at full build-out). Power will be supplied from either a self-generation power facility, the Provincial (BC Hydro) transmission grid, or a combination thereof. If power will be supplied from the Provincial grid, electricity would be conveyed to the Kwispa LNG Area via up to two new dual 230 kilovolt electric transmission lines on single structures, or one 500 kilovolt electric transmission line, from the Dunsmuir substation (located approximately 20 km northwest of Qualicum Beach). The anticipated length of the electric transmission line right-of-way is approximately 90 km. Where possible, the electric transmission line will be routed to align with existing utility corridors and roads to the Kwispa LNG Area.

Feed gas will be transferred from the jetty to each ASLNG™ production unit via hoses or rigid marine loading arms with articulated joints. The dimensions of each ASLNG™ production unit are expected to be approximately 340 m long by 60 m wide. Approximately 12 m to 15 m of the hull will be below the water's surface; the height above water level to the main hull deck of each ASLNG™ production unit will be approximately 25 m.

The natural gas liquefaction process includes the use of a mixed refrigerant gas to chill the feed gas to approximately -162°C and store it at near atmospheric pressure. The refrigerant will comprise hydrocarbons and inert gases and will operate in a closed-loop system. An air-cooling system is proposed as part of the refrigeration system.

Total LNG storage for the Project will be approximately 1.2 million m³ at full build-out, or up to approximately 300,000 m³ for each ASLNG™ production unit. Integrated storage will include approximately five individual tanks within the hull of each ASLNG™ production unit, and LNG will be transferred directly to an LNG carrier from the dedicated loading jetties.

The ASLNG™ production units will include related systems to support the process requirements, including hydraulic oil valve, bilge, ballast water, cofferdam heating, freshwater generation and distribution, firewater distribution, nitrogen, service and instrument air, inert gas, and high-voltage electrical and utilities interface connection with onshore infrastructure. In addition, each ASLNG™ production unit will have its own automation system, which incorporates an emergency shutdown system for safe and reliable operation. Each ASLNG™ production unit will also have its own dedicated flare system, which will enable the safe depressurization and disposal of hydrocarbon vapour from process, utility, LNG storage, and offloading systems. The flare system is not used during normal operations but may be used during start-up, preparation of equipment for maintenance, plant upset, and emergency and shutdown conditions. An additional flare will be located onshore (up to five flares at full build-out).

The marine terminals will consist of up to four independent jetties for permanent mooring of the ASLNG™ production units and up to two independent jetties for LNG carrier berthing and loading. A tug and small craft jetty will allow tugboat(s) to be on stand-by as required and allow occasional access to supply vessels and small work barges for maintenance activities. The marine terminals may also include a dedicated passenger ferry jetty and a marine offloading facility.

In addition to an onshore power generation facility, proposed onshore supporting infrastructure will comprise administration, maintenance, and support buildings including medical facilities, laboratory, and central control room; water supply and wastewater treatment system; stormwater management system; workforce accommodations; and access roads.

2.3 Project Activities

2.3.1 Construction

Construction activities, which may occur up to 24 hours per day, 7 days per week, will include site preparation as well as construction and installation of the Project components, including the following:

- potential localized removal and disposal of marine sediments to accommodate marine terminals and ASLNG™ production units (dredging to allow for marine navigation is not proposed for the Project);
- transportation of construction materials to the Kwispa LNG Area using vehicle and marine transportation, and unloading of materials and equipment from trucks and barges;
- clearing, grubbing, blasting and grading;
- mixing of concrete at an on-site batch plant;
- mobilization and construction of onshore components, including temporary workforce accommodation (up to approximately 1,500 to 2,000 individuals), administration buildings, power station and electrical transmission, external power reception, gas treatment plant, water supply system and stormwater management system, laydown areas, customs areas, warehouses, on-site roads, and perimeter fencing and gates;
- construction of marine jetties and permanent mooring of the ASLNG™ production units;
- construction of electric transmission line (under investigation);
- connection of utilities (e.g., electrical, controls, gas, water) to the ASLNG™ production units;
- generation of electricity for construction activities (e.g., using portable generators);
- waste disposal and recycling in accordance with applicable legislation;
- potential rehabilitation or stabilization of areas not required for the operations phase; and
- decommissioning of any temporary facilities.

The ASLNG™ production units will be built offsite and towed to Kwispa LNG Area for installation and commissioning.

The Project is anticipated to be developed in two or three phases. The first phase will include two ASLNG™ production units, onshore infrastructure, and associated power generation once the applicable permits are in place and pre-construction requirements are met. The remaining two ASLNG™ production units, onshore infrastructure, and potential associated power generation facilities will be added as the second phase and potentially third phase, the timing of which will be subject to market demand (anticipated within two to three years of the first phase).

2.3.2 Operations

The operations phase will include operation of Project components described above to produce, store, and ship LNG to international markets, including:

- delivery of natural gas via the feed gas distribution system;
- power generation and distribution to Project components;
- gas reception and treatment in onshore gas processing units;
- liquefaction of natural gas at the ASLNG™ production units;
- storage and offloading of LNG at the ASLNG™ production units;
- mooring, loading, and transit of LNG carriers, including the assistance of tugs;
- permanent workforce accommodations for full-time operations staff (approximately 300 individuals), if required;
- water collection, treatment, and use;
- wastewater, stormwater, and process water treatment and disposal;
- waste disposal and recycling in accordance with applicable legislation;
- import of liquid refrigerant gases (by land or sea); and
- planned and unplanned maintenance.

2.3.3 Decommissioning

The Project has an expected operational lifespan of at least 25 years for each phase, which may be extended. The decommissioning phase will comprise removal of the ASLNG™ production units for either re-use elsewhere or for full decommissioning and scrapping or recycling at a dedicated facility. Onshore infrastructure and facilities will also be removed, vacated, and the Kwispaa LNG Area restored.

2.3.4 Incidental Physical Activities

LNG produced by the Project will be offloaded from the ASLNG™ production units to LNG carriers via dedicated jetties, which are designed to accommodate LNG carriers with capabilities ranging from 125,000 m³ to 216,000 m³. The Kwispaa LNG Team anticipates that the average LNG carrier calling at the facility will have a capacity of approximately 180,000 m³, which will result in approximately 160 shipments of LNG per year for the first phase (an average of three LNG shipments weekly) and approximately 320 shipments of LNG per year at full build-out (an average of six to seven LNG shipments weekly).

Such LNG carriers will be escorted and moored with the assistance of tugs. The number, size, and arrangement of tugs to potentially escort and berth the LNG carriers will be determined through a Project-specific navigational study (i.e., Technical Review Process of Marine Terminal Systems and Transshipment Sites (“TERMPOL”).

2.4 Emissions, Discharges, and Wastes

The Project will result in emissions, discharges, and wastes comparable to other world-leading BC LNG projects of similar configuration and scale.

Project-related atmospheric emissions may include CO, CO₂, SO₂, NO₂, particulate matter, dust, light and noise from hydrocarbon-fuelled construction equipment, land and marine transport, and process facilities. The greenhouse gas (“GHG”) intensity of the Project is anticipated to be at or less than the world-leading GHG emission intensity benchmark of 0.16 tonnes of CO₂ equivalent per tonne of LNG (“tCO₂e/tLNG”) for LNG facilities set in the Provincial *Greenhouse Gas Industrial Reporting and Control Act*, SBC 2014, c. 29. The Kwispaa LNG Team will report emissions in accordance with the *Greenhouse Gas Industrial Reporting and Control Act* and associated regulations and is exploring the feasibility of additional power supply options to further reduce GHG emissions through potential electrification utilizing Provincial (BC Hydro) grid power. The preliminary estimated range of annual GHG emissions for the Project at full build-out is between 0.032 – 0.159 tCO₂e/tLNG.

Typical liquid wastes associated with the Project will include used motor and hydraulic oils, chemicals from the laboratory, used chemical cleaning fluids, spent solvents, paints, stormwater and site runoff, spent hydrostatic test water, and sanitary sewage.

Appropriate waste reduction, handling, storage, and disposal measures will be identified through the EA process and ongoing design to mitigate potential adverse effects of wastes and discharges. The Developer will dispose of waste in accordance with applicable regulations and will re-use or recycle waste materials.

2.5 Schedule

Subject to receipt of approvals and corporate considerations, the Kwispaa LNG Team aims for the first production of LNG in the fourth quarter (“Q4”) of 2024 or the first quarter (“Q1”) of 2025. The estimated timing of key Project stages is presented in **Table 2-1**.

Table 2-1 Project Schedule

Project Phase	Project Activity	Timing
Project Studies	Geotechnical studies	Q4 2018 – Q3 2018
	Engineering and technical studies	Q4 2018 – Q4 2020
Environmental Assessment	Existing conditions field studies	Q1 2015 – Q4 2016 Q3 2018 – Q4 2019
	Application preparation	2019
	Application submission	December 2019
	Screening and review	December 2019 – July 2020
Financing	Final investment decision	September 2020
Construction	Construction start date – first phase	Q4 2020 / Q1 2021
	Start-up and commissioning – first phase	Q3 2024
	Construction start date – second/third phase	Q4 2023 / Q1 2024 ¹
	Start-up and commissioning – second/third phase	Q4 2027 / Q1 2028 ¹
Operations	First shipment of LNG from the facility	Q4 2024 / Q 1 2025
	Operations and maintenance	Q4 2024 / Q1 2025
Decommissioning and Abandonment	Decommissioning and reclamation	Upon completion of operations
	Abandonment	Upon completion of reclamation

Notes: Q2 – second quarter; Q3 – third quarter

¹ Anticipated commissioning date to be determined by market conditions.

The EA schedule outlined in **Table 2-1** approximates milestones identified as part of the Provincial and Federal EA processes. The actual duration of each stage of the process will depend on several factors, including the scope of the assessment, direction from the BC EAO and the CEA Agency, and the resolution of issues raised during the EA process.

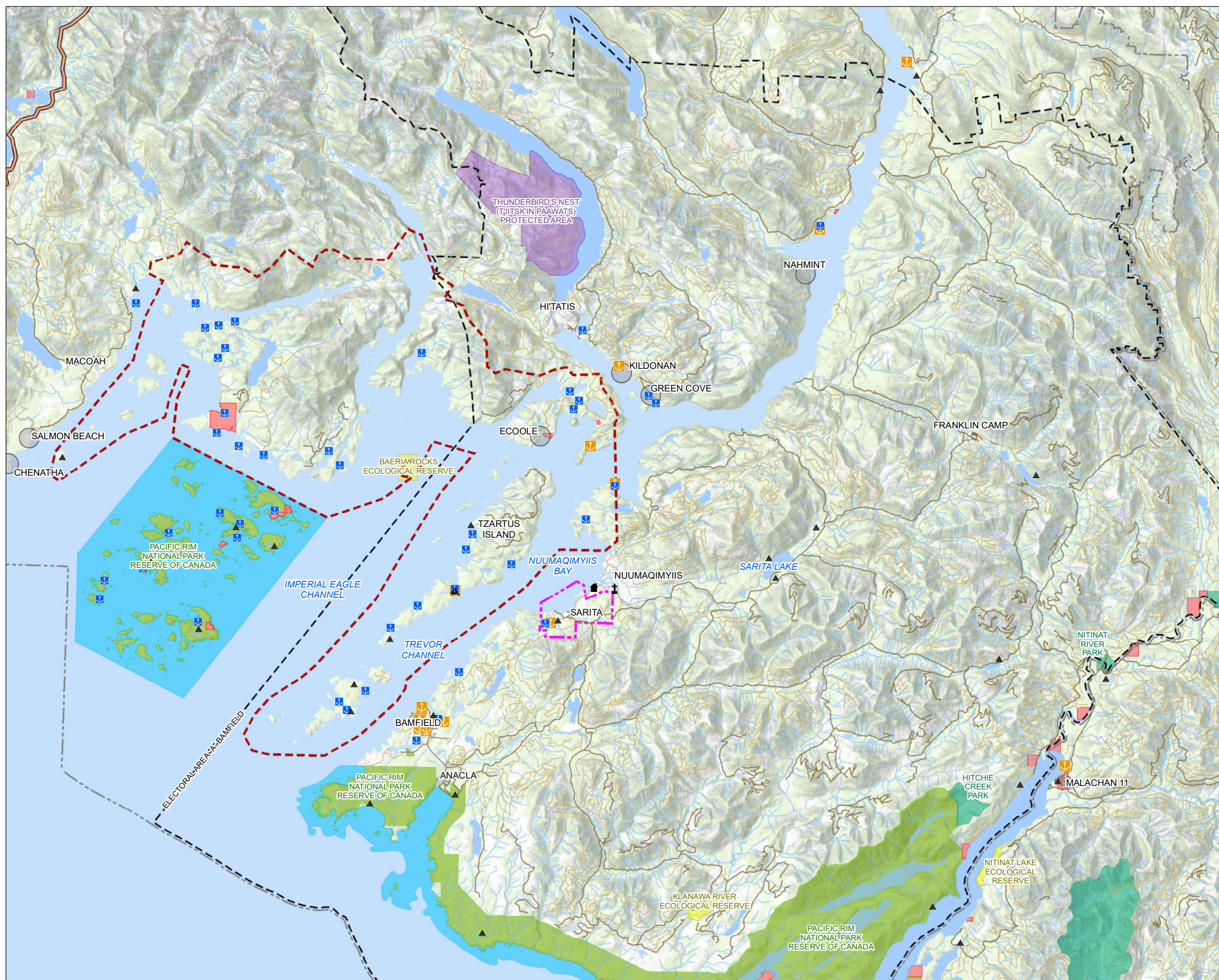
3 Project Location

3.1 Project Location Overview

The Project will be situated on Huu-ay-aht-owned lands that are pre-approved Treaty Lands, as determined in the Maa-nulth Final Agreement, along Nuumaqimyis Bay within Barkley Sound. The geographic coordinates of the Kwispaa LNG Area are: 48° 53' 00.00" N, 125° 02' 00.00" W. The Kwispaa LNG Area is within the Alberni-Clayoquot Regional District ("ACRD"). The closest communities to the Kwispaa LNG Area are Anacla and Bamfield, approximately 11.5 km and 10 km southwest respectively (**Figure 1-1**). The Kwispaa LNG Area site boundary is defined through the Sarita Cultural Protection Line, which was designed to avoid cultural and other areas of importance to Huu-ay-aht. The closest residence is located 500 m east of the Kwispaa LNG Area on the west side of the Sarita River. The locations of communities, First Nations reserves, parks, and other features in relation to the Kwispaa LNG Area are shown in **Figure 3-1**. The Kwispaa LNG Area falls within the Barkley Sound portion of the Maa-nulth Final Agreement Treaty area (**Figure 3-2**).

The onshore components of the Project will be located on up to approximately 475 ha of land, and the at-shore components will be located on a water lot of up to approximately 255 ha. The Kwispaa LNG Area will be adjusted to maintain a safety awareness zone once the Project footprint is confirmed and a quantitative risk assessment has been completed. The onshore Project components can be accessed from Bamfield, Port Alberni, or Duncan as shown on **Figure 1-1**. The at-shore components will be located along the shore of Nuumaqimyis Bay. LNG carriers will access the facility via Trevor Channel from the Pacific Ocean and the Cape Beale Pilot Station (**Figure 2-2**).

Regional Overview



Legend

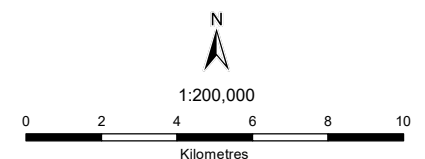
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|-----------------------------------|----------------------------------------------|
| Kwispaa LNG Area | Rough Road (Unmaintained Gravel or Dirt) |
| Anchorage | Alberni-Clayoquot Regional District Boundary |
| Campground | Electoral Area "A" Bamfield Boundary |
| Cemetary | Special Management Zone 14 |
| Closest Residence to Project Area | Ecological Reserve |
| Yacht Club | First Nations Reserve |
| Marina | National Park |
| Transmission Line | National Marine Park |
| Paved Road | Protected Area |
| Loose Road (Maintained Gravel) | Provincial Park |

Notes

1. All mapped features are approximate and should be used for discussion purposes only.
2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

- Anchorages, Marinas: BCMCA
- Transmission Lines: BC Hydro
- Campgrounds, Regional Municipalities, Populated Places, First Nations Reserves: Province of BC
- Parks and Protected Areas: Government of Canada
- Special Management Zone 14: Vancouver Island Land Use Plan
- Basemap: ESRI World Topo Base







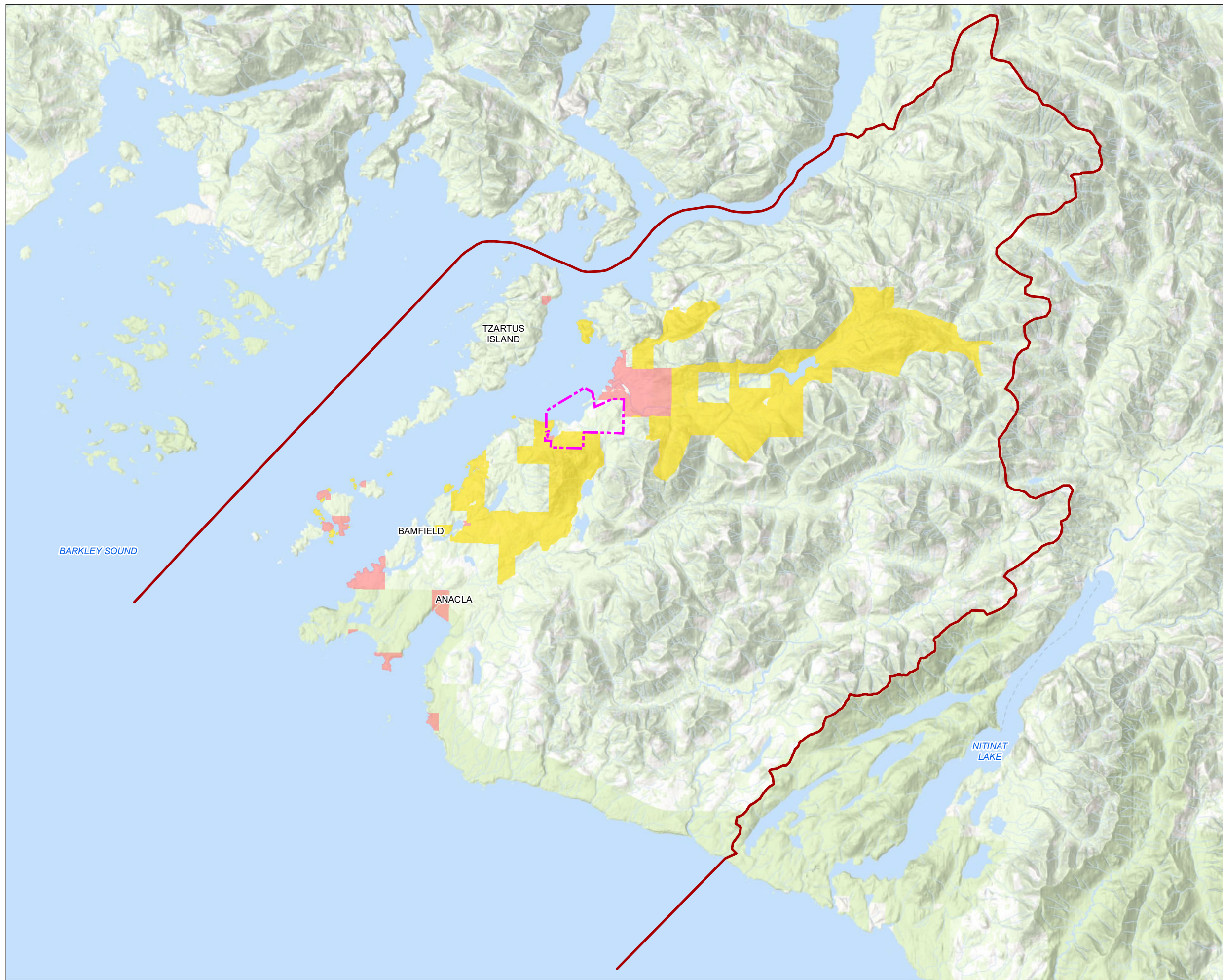
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Huu-ay-aht First Nations Treaty Lands

Legend

-  Kwispaa LNG Area
-  Huu-ay-aht First Nations Treaty Area
- Maa-nulth First Nation Lands of the Huu-ay-aht First Nations**
 -  Former First Nations Reserve
 -  Former Provincial Crown Land

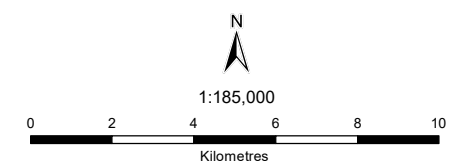


Notes

1. All mapped features are approximate and should be used for discussion purposes only.
2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

- Huu-ay-aht First Nations Treaty Area, Former First Nations Reserves, Former Provincial Crown Land: Province of BC
- Basemap: ESRI World Topo Base



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3.2 Land Ownership, Treaty Lands and Indigenous Agreements, Land Use Plans, and Zoning

The Kwispaa LNG Area is currently made up of 12 parcels of land and four water lots, including:

- six parcels are held in fee simple by Huu-ay-aht. These parcels are pre-approved for conversion into Treaty Land, which Huu-ay-aht intends to convert prior to operations of the Project;
- portions of four parcels are held by Huu-ay-aht as Treaty Land;
- two upland land parcels are administered by the Provincial Government;
- three water lots are leased by Western Forest Products Inc. from the Provincial Government; and
- one water lot is leased by a third party.

Huu-ay-aht is a member of the Nuuchahnulth Tribal Council and one of the five First Nations signatories to the Maa-nulth Final Agreement, which came into effect on April 1, 2011 (HFN 2017). The four other Maa-nulth First Nations are Yuułuṭiṭṭ Nation (“Yuułuṭiṭṭ”), Uchucklesaht Tribe (“Uchucklesaht”), Toquaht Nation (“Toquaht”), and Ka:yu:kth/Che:k:tlas7eth First Nations (“Ka:yu:kth/Che:k:tlas7eth”). The Project falls within the Maa-nulth First Nation Area of Huu-ay-aht and will be located on Huu-ay-aht owned lands, which are situated within Huu-ay-aht’s larger ḥahuuṭi (**Figure 3-2**). Under the Maa-nulth Final Agreement, Huu-ay-aht has the authority to make laws governing the use of its Treaty Lands, including management, planning, zoning, and development (MFNFA 2009). Huu-ay-aht citizens also have other constitutionally protected Treaty rights in their ḥahuuṭi.

Under the Maa-nulth Final Agreement, Huu-ay-aht and the other Maa-nulth First Nations also have certain harvesting and other rights, including the right to harvest Fish and Aquatic Plants for food, social, and ceremonial purposes in the Domestic Fishing Area; harvest Wildlife for food, social and ceremonial purposes in the Wildlife Harvest Area; harvest Migratory Birds for food, social, and ceremonial purposes in the Migratory Birds Harvest Area; trade and barter, among themselves and with other Indigenous peoples of Canada, any resource harvested pursuant to the right to harvest Fish, Wildlife, or Migratory Birds; and fish under their commercial fishing licences and Harvest Agreement licences¹. The Project falls within the Maa-nulth Domestic Fishing Area of Barkley Sound, the Maa-nulth Wildlife Harvesting Area of Barkley Sound, and the Maa-nulth Migratory Birds Harvesting Area of Barkley Sound.

In addition to the overlap with the ḥahuuṭi of the Maa-nulth First Nations, the Kwispaa LNG Area also overlaps with the traditional territories of the Hupačasath First Nation (“Hupačasath”) and Tseshaht First Nation (“Tseshaht”). The traditional territories of K’ómoks First Nation (“K’ómoks”), Qualicum First Nation (“Qualicum”), and We Wai Kai Nation overlap with the potential electric transmission line from Dunsmuir substation to the Kwispaa LNG Area.

¹ All capitalized terms are defined in the Maa-nulth Final Agreement.

There are no present day First Nation reserves (as defined under the Federal *Indian Act*, R.S.C., 1985, c. I-5) within or in close proximity to the Kwispaa LNG Area. Under the Maa-nulth Final Agreement, former Huu-ay-aht reserves have been converted to Treaty Lands. First Nation Reserve Tseoowa No. 4 and First Nation Reserve Ahmitsa No. 5 are closest to the Kwispaa LNG Area.

Reserves in the area surrounding the Kwispaa LNG Area, potential electric transmission line, and route to be used by LNG carriers are shown on **Figure 3-1** and listed in **Table 3-1**.

Table 3-1 Reserve Names and Locations by First Nation

First Nation	Reserve Name	Location Relative to Project
Tseshaht First Nation	Tseoowa (No. 4)	10 km north of the Kwispaa LNG Area, on the east shore of Rainy Bay in Barkley Sound (2.9 ha)
Tseshaht First Nation	Ahmitsa (No. 5)	9 km north of the Kwispaa LNG Area, at the mouth of Rainy Bay in Barkley Sound (10.2 ha).
Tseshaht First Nation	Omoah (No. 9)	Approximately 9 km northwest of Trevor Channel, on the east side of Effingham Island (11.8 ha)
Tseshaht First Nation	Keith Island (No. 7)	Approximately 12 km northwest of Trevor Channel, on Keith Island (6.6 ha)
Tseshaht First Nation	Cleho (No. 6)	Approximately 11 km northwest of Trevor Channel, on the southeast corner of Nettle Island (5.7 ha)
Hupačasath First Nation	Nettle Island (No. 5)	Approximately 11 km northwest of Trevor Channel, on the southeast corner of Nettle Island (25.1 ha)
Hupačasath First Nation	Chuchakacook (No. 4)	Approximately 7 km west of the potential electric transmission line route, on the west side of Alberni Inlet north of Nahmint Bay (2.2 ha)
Hupačasath First Nation	Cous (No. 3)	Approximately 4 km west of the potential electric transmission line route, on the west side of Alberni Inlet at Stamp Narrows (55 ha)
Tseshaht First Nation	Alberni (No. 2)	Approximately 5 km west of the potential electric transmission line route, on the east side of Alberni Inlet south of Port Alberni (62 ha)
Qualicum First Nation	Qualicum	Approximately 4 km east of the Dunsmuir substation, south of Qualicum Bay (72.8 ha)

Huu-ay-aht Land Use Plan: Huu-ay-aht has established a land use plan to guide the direction of land use and development on Huu-ay-aht Treaty Lands. By April 1, 2026, Huu-ay-aht will acquire land and resource interests in properties outside the Treaty Lands, both within the hahuuḷi and in other strategic areas. The land use goals established within the Huu-ay-aht Land Use Plan will guide the acquisition and direction of development on these lands as well (HFN 2013).

Provincial Land Use Plan: The Kwispaa LNG Area is within the area covered by the Vancouver Island Land Use Plan. The terrestrial portions of Kwispaa LNG Area located on Huu-ay-aht Treaty Land and Huu-ay-aht fee simple land are not covered by the Land Use Plan. The terrestrial and marine portions of the Kwispaa LNG Area that are located on land administrated by the Provincial Government are covered by the Land Use Plan. Primary values for Barkley Sound under the Vancouver Island Land Use Plan include visual

resources associated with marine zone and islands, recreation values and opportunities, rare/threatened marine species and habitats, as well as archaeological values (Government of BC 2000). Resource management should be guided by the Barkley Sound Planning Strategy (1994), Vancouver Island Land Use Plan objectives, and requirements under the *Forest Practices Code of British Columbia Act*, RSBC 1996, c. 159 (Government of BC 2000).

Regional planning priorities under the Vancouver Island Land Use Plan for Barkley Sound include Special Management Zones of low to moderate priority. A sizable portion of Barkley Sound, north of the Kwispaa LNG Area, is designated as Special Management Zone 14 (Government of BC 2000). Special Management Zone 14 includes land administered by the Provincial Government on islands and along the ocean-facing slopes surrounding Barkley Sound (Government of BC 2000). The marine portion of the Kwispaa LNG Area falls within Special Management Zone 14.

Barkley Sound Planning Strategy: The Barkley Sound Planning Strategy was prepared by representatives of 15 Provincial, Federal, and regional district agencies, as well as First Nations (Government of BC 1994). The purpose of the Barkley Sound Planning Strategy is to guide long-term use and development of Barkley Sound and Alberni Inlet.

Parks and Protected Areas: There are no designated parks or protected areas within or adjacent to the Kwispaa LNG Area. The Federal Pacific Rim National Park Reserve is located approximately 15 km south and west of the Kwispaa LNG Area. The route to be used by LNG carriers calling on the Kwispaa LNG terminal through Trevor Channel passes in proximity to the Pacific Rim National Park Reserve as well as a Fisheries and Oceans Canada (“DFO”) Rockfish Conservation Area in the southern portion of Barkley Sound.

Alberni-Clayoquot Regional District: The Kwispaa LNG Area is situated within the ACRD Electoral Area A Bamfield and falls within the Alberni Water District. The ACRD does not have a regional growth strategy, and there are no ACRD land use planning designations within the Kwispaa LNG Area (ACRD 2018). Land parcels within the Kwispaa LNG Area are zoned as Resource, Forest Reserve, intended for large-block resource use (ACRD 2017).

4 Government Involvement

At this time, Federal funding is not anticipated to be required for the Project. The upland components of the Project will be primarily located on Huu-ay-aht fee simple and Treaty Land. The portions held by Huu-ay-aht as fee simple land are pre-approved for conversion into Treaty Land, which Huu-ay-aht intends to convert prior to operations of the Project. Small area(s) of land administered by the Provincial Government may also be required. No use of Federal lands (and therefore no requirement for the granting of any interest in Federal lands) will be required for the Project. The marine components of the Project will overlap and extend beyond the existing water lots held by Western Forest Products Inc.

The key Huu-ay-aht, Federal, and Provincial permits and authorizations expected to be required for the Project are outlined in **Table 4-1**. This list is preliminary and will be revised as necessary as the Project planning and design process progresses. Concurrent permitting will be sought from the Huu-ay-aht, Federal, and Provincial responsible agencies.

Table 4-1 Anticipated Permitting and Regulatory Requirement

Permit/Authorization	Relevant Project Activity	Applicable Legislation/Regulation	Responsible Agency
Huu-ay-aht First Nations			
Approval to grant the required interests in Huu-ay-aht Lands	Required for use of Huu-ay-aht Lands for the construction of Project infrastructure and tenure	<i>Land Act</i> , s. 11	Executive Council
Approval to grant any temporary interests	Required for use of Huu-ay-aht Lands for the construction of Project infrastructure and tenure	<i>Land Act</i> , s. 34	Lands and Natural Resources
Approval of applications to make any required amendments to the Land Use Plan or zoning regulation	Required for use of Huu-ay-aht Lands for the construction of Project infrastructure and tenure	s. 3 of the Development and Building Permits Regulation	Executive Council
Federal			
Environmental Assessment Decision Statement	Required prior to obtaining Federal authorizations and/or proceeding with a designated project or activity	CEAA 2012	Canadian Environmental Assessment Agency
LNG Export Licence	Required for the export of LNG to international markets (NOTE: four licences received in October 2015 for aggregate of 24 mtpa)	<i>National Energy Board Act</i> , RSC 1985, c. N-7	National Energy Board

Permit/Authorization	Relevant Project Activity	Applicable Legislation/Regulation	Responsible Agency
<i>Fisheries Act</i> Authorization	Required if Project activities will likely result in serious harm to fish that are part of a commercial, recreational, or Indigenous fishery, or to fish that support such a fishery. May be required to construct marine infrastructure, including jetties and offloading facility	<i>Fisheries Act</i> , RSC 1985, c. F-14	Fisheries and Oceans Canada
Navigable Waters Approval	Required for any construction activity that is considered to substantially interfere with navigation of scheduled navigable waterways, which may include the jetties and mooring of the ASLNG™ production units	<i>Navigation Protection Act</i> , RSC 1985, c. N-22	Transport Canada
Transport Canada Marine Safety Compliance and Enforcement Certificate of Compliance	Required for operation of marine terminal facilities and vessels; will be required to allow LNG carriers to moor at the facility	<i>Canada Shipping Act</i> , SC 2001, c. 26; <i>Marine Transport Security Act</i> , SC 1994, c. 40; Marine Transportation Security Regulations, SOR/2004-144	Transport Canada
Aeronautical Obstruction Clearance	Required for tall structures that may interfere with air navigation, which may include the flare stack and loading arms	<i>Aeronautics Act</i> , RSC 1985, c. A-2; Canadian Aviation Regulations, SOR/96-433	Transport Canada
Non-objection to land use and construction proposals	Required for tall structures that may interfere with air navigation, which may include the flare stack and loading arms	<i>Aeronautics Act</i> , Canadian Aviation Regulations, and various zoning regulations and orders	NAV CANADA
<i>Species at Risk Act</i> Permit	May be required if any Project activities or components affect a Schedule 1 (<i>Species at Risk Act</i>) listed species or any part of its critical habitat or the residences of its individuals	<i>Species at Risk Act</i> , SC 2002, c. 29	Environment Canada, Fisheries and Oceans Canada, and Parks Canada

Permit/Authorization	Relevant Project Activity	Applicable Legislation/Regulation	Responsible Agency
Licence or Certificate for the temporary storage of explosives	May be required if Project activities include blasting	<i>Explosives Act</i> , RSC, 1985, c. E-17; Explosives Regulations, 2013, SOR/2013-211	Natural Resources Canada
Provincial			
Environmental Assessment Certificate	Required prior to obtaining other Provincial permits or constructing the Project	BCEAA	BC Environmental Assessment Office
LNG Facility Permit, including Leave to Construct and Leave to Operate	Required prior to any construction activities for the Project and for operation of the Kwispaa LNG facility	<i>Oil and Gas Activities Act</i> , SBC 2008, c. 36; Liquefied Natural Gas Facilities Regulation, BC Reg. 146/2014	BC Oil and Gas Commission
Safety Management Plan – Alternative Safety Approach	Required for variances to prescriptive safety requirements	<i>Safety Standards Act</i> , SBC 2003, c. 39	Technical Safety BC
Heritage Site Alteration Permit	May be required during the construction phase to alter an archaeological site within the Project footprint, if any archaeological site(s) is confirmed to exist during an archaeological overview or impact assessment	<i>Heritage Conservation Act</i> , RSBC 1996, c. 187	BC Oil and Gas Commission (supported by Archaeology Branch, BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development)
Wildlife Salvage Permit	May be required for site preparation during pre-construction, construction, and operations phases if wildlife salvages and bird nest removal or relocation are necessary	<i>Wildlife Act</i> , RSBC 1996, c. 488	BC Oil and Gas Commission (supported by BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development)

Permit/Authorization	Relevant Project Activity	Applicable Legislation/Regulation	Responsible Agency
Waste Discharge Permit(s)	Required prior to discharge of effluent (e.g., water from settling ponds or impoundments, potential cooling water discharge) to the environment; release of air emissions; and management of solid waste	<i>Environmental Management Act</i> , SBC 2003, c. 53; Waste Discharge Regulation, BC Reg. 320/2004; Oil and Gas Waste Regulation, BC Reg. 254/2005; Petroleum Storage and Distribution Facilities Storm Water Regulation, BC Reg. 168/94; Hazardous Waste Regulation, BC Reg. 63/88	BC Oil and Gas Commission (may be supported by BC Ministry of Environment and Climate Change Strategy)
Registration under the Code of Practice for the Concrete and Concrete Products Industry	May be required if a concrete batch plant is used on site during construction	<i>Environmental Management Act</i> ; Waste Discharge Regulation	BC Oil and Gas Commission (may be supported by BC Ministry of Environment and Climate Change Strategy)
Water Licence	Required prior to withdrawal of surface water or groundwater	<i>Oil and Gas Activities Act</i> ; <i>Water Sustainability Act</i> , SBC 2014, c. 15	BC Oil and Gas Commission (may be supported by BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development)
Notification(s) and/or Change Approvals for Changes In and About a Stream	Notification is required prior to undertaking an authorized change in and about a stream as defined in section 39 of the <i>Water Sustainability Regulation</i> . A change approval is required prior to undertaking any other type of change	<i>Water Sustainability Act</i> ; <i>Water Sustainability Regulation</i> , BC Reg. 36/2016	BC Oil and Gas Commission (supported by BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development)
Land Allocation/Tenure/ Licence of Occupation	Required for use of land administered by the Provincial Government, including foreshore area and water lots, for the construction of Project infrastructure and tenure	<i>Land Act</i>	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development

Permit/Authorization	Relevant Project Activity	Applicable Legislation/Regulation	Responsible Agency
Drinking Water System Permit(s)	Required prior to construction and operation of drinking water supply system	<i>Drinking Water Protection Act, SBC 2001, c. 9; Public Health Act, SBC 2008, c. 28; Industrial Camps Regulation, BC Reg. 70/2012</i>	BC Ministry of Health (Vancouver Island Health Authority)
Waterworks Construction and Operations Permit(s)	Required for the construction and operation of sewage facilities for a 100+ person camp with a daily design flow of 22,700 litres per day or more	<i>Environmental Management Act; Municipal Wastewater Regulation, BC Reg. 87/2012</i>	BC Ministry of Health (Vancouver Island Health Authority)
Camp Permit	Required for the construction and operation of a construction camp	<i>Public Health Act; Industrial Camp Regulations, BC Reg. 70/2012; Food Premises Regulations, BC Reg. 210/99; Sewerage System Regulation, BC Reg. 326/2004</i>	BC Ministry of Health / Ministry of Environment and Climate Change Strategy

In addition to the required Federal, Provincial, and local government permits, authorizations, and licences, the Kwispaa LNG Team will be undertaking a voluntary TERMPOLE review. This technical review is an analysis designed to assess the risks to navigation and public safety associated with shipping and navigation.

Land parcels within the Kwispaa LNG Area are classified by the ACRD as Resource, Forest Reserve, intended for large-block resource use (ACRD 2017). Rezoning through the ACRD may be required for any parcels not held by Huu-ay-aht as Treaty Land.

5 Environmental Setting and Effects

An overview of the environmental settings in and around the Kwispaa LNG Area was prepared using information gathered from publicly available sources, including scientific literature, grey literature (e.g., technical reports, government reports), and EA documentation from other projects proximate to the Kwispaa LNG Area. This information will be augmented with data from Project-specific studies that will be undertaken to support the environmental, economic, social, health, and heritage effects assessments for the Project.

5.1 Biophysical Setting

Cultural Resources: The Kwispaa LNG Area supports a rich diversity of aquatic and terrestrial species and habitats. Important Huu-ay-aht cultural resources located in and around the Kwispaa LNG Area include cedar trees and stands of cedar trees; the area between marine area and forest where certain plants are harvested; Santa Maria Island; intertidal areas that Huu-ay-aht have traditionally developed and maintained; fishing grounds; hunting and gathering grounds; and Nuumaqimyis, Huu-ay-aht's traditional winter village located at the mouth of the Sarita River. The Kwispaa LNG Team has sought to protect these important cultural resources by establishing the Sarita Cultural Protection Line, which was developed through extensive feedback from Huu-ay-aht citizens and defines the site boundary (i.e., the Kwispaa LNG Area).

Climate and Weather: The Kwispaa LNG Area is one of the wettest in Canada with cool summers and mild winter temperatures (BC MOF 1994). Major rainfall events from moist Pacific air masses occur between October and March, and sea fog off Cape Beale reduces visibility between July and October. Average monthly temperatures range from 3.3°C to 14.0°C, and average monthly precipitation is from 54.3 millimetres ("mm") to 428.5 mm. Snow falls from January through March and October through December; snowfall accumulations tend to be short-lived. Winds at Cape Beale range from 10 km per hour ("km/h") to 17 km/h and are expected to be oriented along the shoreline due to the local topography. Storm winds in the region are predominantly from the southeast, south, and northwest during the winter (storm) season. The Kwispaa LNG Area lies within the Alberni basin airshed, which is characterized by frequent thermal inversions during winter months. Air quality within the airshed has improved in recent decades due to improvements to industrial operations and burning practices (ACRD 2016). Existing ambient light levels within the Kwispaa LNG Area are low based on initial studies conducted by WorleyParsons in 2015 (WorleyParsons 2016). Audible noise sources include airplanes, vehicles, boats, birds, wildlife, wind in trees, flowing water, and waves. Current log-sorting activities in the Kwispaa LNG Area are an audible noise source and would cease if the Project is advanced.

Marine Environment: Marine portions of the Kwispaa LNG Area, including the shipping lanes, are situated in the Outer Pacific Shelf Marine Ecoregion (Demarchi 2011), a narrow continental shelf area that extends westward from Vancouver Island to the bottom edge of the continental slope. Intense upwelling at the edge of the continental slope creates strong mixing resulting in a diverse community of marine life. Within this ecoregion, the area is situated in the Vancouver Island Shelf eco-section (Demarchi 2011), a shallow oceanic area with several isolated islands, islets, and reefs. This is a very important area for Indigenous, recreational, and commercial fishing. The islands and islets are important seabird nesting areas, harbour seal breeding sites, and sea lion haulouts (although no sea lion haulouts or rookeries are present in the immediate vicinity of Nuumaqimyis Bay). Included as protected areas in this eco-section are the marine portion of Pacific Rim National Park and Checleset Bay Ecological Reserve; the Anne Valle (Triangle Island), Sartine Island, and Beresford Island ecological reserves; and Lanz and Cox Islands Parks (Demarchi 2011).

Trevor Channel is bordered by islands to the northwest. The majority of Trevor Channel and Nuumaqimiyis Bay have water depths varying from 100 m to 150 m, except along the southwest end of Trevor Channel where water depths decrease to approximately 30 m to 50 m. Tidal range near the Kwispaa LNG Area is approximately 3.9 m; tides are semi-diurnal and markedly declinational (i.e., influenced by the position of the moon). Around Cape Beale, flood and ebb tides reach up to 40 centimetres per second. Offshore waves in the Pacific Ocean are severe during the winter seasons, with frequent high swell waves associated with long wave periods. Storm waves typically occur between December and March, and long swell waves travel through Trevor Channel and arrive at the Kwispaa LNG Area with reduced wave energy.

Marine Substrate, Vegetation, Invertebrates, Reptiles, and Fish: The substrate of Nuumaqimiyis Bay predominantly consists of soft to mixed substrate. North of Santa Maria Island is bedrock and sand with some gravel along the shoreline. Marine sediment in the Kwispaa LNG Area may contain contaminants of concern. Eelgrass areas are located in Sarita River estuary and a portion of Nuumaqimiyis Bay, 20 m to 40 m from shore. Green, brown, and red algae are expected to be present. Barkley Sound supports many species of marine fish and invertebrates due to upwellings of nutrient-rich waters from the Juan de Fuca Plate and subsequent mixing with less saline and warmer surface waters, resulting in a diversity of marine life, from microscopic primary producers (phytoplankton) through apex predators such as killer whales. Barkley Sound, including Trevor Channel, is an important area for pink shrimp, Dungeness crab, and Pacific and Olympia oysters. Pacific spot prawn is also present in Barkley Sound, although Nuumaqimiyis Bay and lower Trevor Channel are not documented as important areas. The Northern abalone is found along the Pacific Coast in lower intertidal and subtidal zones; presence around the Kwispaa LNG Area is not documented. Invasive species documented in the Sarita River estuary and nearby include varnish clam, Manilla clam, which has been seeded into the area, and green crab. The leatherback sea turtle is a migratory species that has been sighted off the coast of Vancouver Island, including Barkley Sound (West Coast Aquatic 2012). The only other marine turtle reported in the region is the green turtle, considered a rare vagrant in BC. Closest to the Kwispaa LNG Area, a live specimen was recorded near Ucluelet in 1954 (Matsuda et al. 2006).

Barkley Sound also supports Pacific hake, green sturgeon migrations, adult and juvenile salmon foraging and migrations, Pacific herring spawning and foraging, juvenile eulachon rearing, sardine foraging, flatfish juvenile rearing, Pacific sand lance burying habitats, and productive eelgrass (DFO 2013). Several species of marine fish, including pipefish, sculpin, eelpout, combfish, gunnel, perch, sanddab, flounder and stickleback species, were collected by beach seine along the Nuumaqimiyis Bay shore in preliminary studies conducted in June 2015 (WorleyParsons 2017). Other fish species known to occur in Barkley Sound are the basking shark and bluntnose sixgill shark, which use the area as nursery habitat (Government of Canada 2018a). Pacific herring are known to spawn in Barkley Sound, although spawning activity has not been documented in the Kwispaa LNG Area. Recorded spawning densities in areas west of the Kwispaa LNG Area, including Poett Nook, are very low.

Marine Mammals: Marine mammals occupy the nearshore and offshore marine habitats of the Kwispaa LNG Area. Species that regularly occur in the waters of the Vancouver Island Shelf eco-section include grey whale, common minke whale, fin whale, humpback whale, Cuvier's beaked whale, Risso's dolphin, Pacific white-sided dolphin, northern right whale dolphin, southern resident killer whale, transient killer whale, Harbour porpoise, Dall's porpoise, northern fur seal, steller sea lion, California sea lion, northern elephant seal, harbour seal, and sea otter. Critical habitat for humpback whale feeding and foraging has been designated over Barkley Sound waters, including Nuumaqimiyis Bay (Kwispaa LNG Area) as well as an area of marine water to the west (navigation route) (Government of Canada 2018b). An amendment to the Species at Risk Recovery Plan for Northern and Southern Killer Whales has been proposed that would extend

the definition of critical habitat for these populations to include the area between Swiftsure Bank and Amphitrite Point, and out to La Parouse Bank (Government of Canada 2018c). Offshore killer whales have been seen in the general vicinity of the Kwispa LNG Area (DFO 2009).

Freshwater Environment: The upland portion of the Kwispa LNG Area is located west of the Sarita River. Two tributaries to the Sarita River and two unnamed watercourses are located within the Kwispa LNG Area. Frederick Creek flows from Frederick Lake generally in a south-to-north direction and enters Sarita River approximately 700 m upstream from the river's mouth. A lower tributary to the Sarita River enters the edge of the Sarita River estuary just upstream of a road culvert, and a small creek flows into Nuumaqimiyis Bay. An additional small creek was identified during a 2015 field visit just south of Santa Maria Island. The surrounding lands have been logged in recent years, and the forested riparian zone has experienced extensive blow-down.

Freshwater Fish and Fish Habitat: The Sarita River watershed is close to 9,000 ha in total size. The main watercourses in the watershed include the Sarita River, South Sarita River, Sabrina Creek, and Frederick Creek. Smaller tributaries of the Upper Sarita include Central, Hunter, Thompson, and Miller creeks. The mouth of the Sarita River is approximately 900 m wide and includes a wide salt marsh area with tidal channels and some small islands. Historically, the Sarita River supported many salmonid species including coho, pink, chinook, chum, and sockeye, as well as steelhead and resident trout and char (cutthroat, rainbow, and Dolly Varden char). On the west coast of Vancouver Island, chinook salmon are currently undergoing a status assessment by the Committee on the Status of Endangered Wildlife in Canada and have been identified as a stock of concern by DFO.

Sarita Lake is the largest lake in the watershed, which is regenerating following extensive logging including to the edge of banks. With little riparian area, the watershed has experienced channel widening, channel and bank instability, infilling of pools, reduced surface flows in summer, higher peak flows in winter, and reduced woody debris and nutrients due to the loss of riparian vegetation. A series of falls 1 km downstream of Sarita Lake create impassible barriers to fish (Barry 2010). Forestry activities around these critical fish habitat areas have resulted in adverse effects on fish and fish habitat. Factors believed to be limiting salmon production in the Sarita watershed include lack of deep pools for adults holding in the Sarita River, lack of summer rearing habitat for juveniles in both the estuary and in the Sarita River, and lack of stable spawning habitat in Sarita and South Sarita rivers (Barry 2010). While the Sarita River has abundant gravel as potential spawning substrate, gravel stability is also a concern and it is compacted in many areas. Huu-ay-aht seeks to renew the Sarita, Pachena, and Sugsaw watersheds, and eventually other watersheds within their ḥahuuḥi through the Watershed Renewal and Fisheries Enhancement Fund.

Coho and chinook salmon and steelhead trout have been documented in Frederick Creek (BC MOE 2018). An early field visit for the Project resulted in the capture of coho salmon, cutthroat trout, rainbow trout, starry flounder, three-spine stickleback, and prickly sculpin. Fish habitat includes abundant off-channels, pools, refuge areas, and good gravel substrate for spawning (Barry 2010). Visual observations suggest that Frederick Creek is fish-bearing throughout most reaches and tributaries. The upper half of Creek 2 (a lower tributary to the Sarita River) was found to have moderate value for fish habitat during an early field visit for the Project. Coho salmon and rainbow and cutthroat trout have been reported in the lower reaches of Creek 2, up to the ephemeral reaches through the forest cut-blocks. Coho salmon, cutthroat trout, and prickly sculpin were captured in this watercourse during early Project field studies in August 2015. Suitable freshwater fish habitat exists in the lower portion of Creek 3, where coho salmon, cutthroat trout, three-spine stickleback, and prickly sculpin were captured during early field studies in August 2015.

Terrestrial Environment: The Kwispa LNG Area is located over a narrow coastal lowland – the Estevan Coastal Plain. The area is within the Windward Island Mountains ecoregion of the Western Vancouver Island ecoregion. The lands within and around the Kwispa LNG Area have been used for a variety of commercial and industrial purposes throughout the past century, including logging and log sorting, so much of the terrestrial habitat has been impacted by historical and ongoing activities. The terrestrial portion of the Kwispa LNG Area is located within the Coastal Western Hemlock biogeoclimatic zone, which supports the greatest diversity and abundance of wildlife and habitat of any ecological zone in BC (BC MOF 1994). Its predominant features are the Coastal Mountains and the ocean, which affect the climate and the ecology of the region. The Kwispa LNG Area features a wet, humid climate with cool summers and mild winters with relatively little snow limited to a narrow coastal area from near Port Renfrew to Quatsino Sound (BC MOF 1994). The low-lying terrain contains minor elongated hills rising to 70 masl. Elevations within the Kwispa LNG Area range from sea level at the coast to approximately 330 masl in the southeast corner.

Growing seasons are long and precipitation is high, with vegetation dominated by western hemlock, amabilis fir, and western redcedar (BC MOF 1994). Red huckleberry and Alaskan blueberry are the predominant shrubs and moss is abundant. The Kwispa LNG Area consists of second-growth forest with historic logging activity occurring over several decades. Up to 139 Provincially listed plant species are present in the biogeoclimatic zone of the South Island Forest District, with 20 listed as either special concern, threatened, or endangered under the *Species at Risk Act*, SC 2002, c. 29. Along the Sarita River, paintbrush owl clover, nodding semaphore grass, and graceful arrow-grass have been identified. Two wetlands, 1.9 ha and 4.4 ha in size, are located in the Kwispa LNG Area. The potential electric transmission line is also likely to cross several wetlands, depending on final routing.

Terrestrial Wildlife: The area has experienced extensive human activities such as forestry that have altered its physical structure, resulting in changes to the wildlife community. In addition to habitat fragmentation, one of the main effects on habitat structure has been a substantial reduction of the most advanced stages of ecological forest succession (i.e., old-growth forests) and, presumably, the species that depend upon them. Invertebrates species of conservation concern include the dromedary jumping-slug and the warty jumping-slug. Twelve species of amphibians and reptiles potentially occur in the terrestrial habitats of the Kwispa LNG Area: rough-skinned newt, long-toed salamander, northwest salamander, western red-backed salamander, ensatina, wandering salamander, western toad, northern Pacific treefrog, northern red-legged frog, common garter snake, northwestern garter snake, and western terrestrial garter snake. The northern red-legged frog and western toad have been identified within the Kwispa LNG Area. Mammal species potentially occurring in the Kwispa LNG Area include California myotis, western long-eared myotis, little brown myotis, long-legged myotis, Yuma myotis, hoary boat, silver-haired bat, big brown bat, Townsend's big-eared bat, vagrant shrew, dusky shrew, American water shrew, common water shrew, deer mouse, Keen's mouse, Townsend's vole, common muskrat, American beaver, red squirrel, American black bear, northern raccoon, grey wolf, cougar, North American river otter, ermine, American mink, American marten, wolverine (*vancouverensis* subspecies), black-tailed deer, and Roosevelt elk.

Barkley Sound supports hundreds of species of resident and migratory birds, which occupy every environment from the open ocean of nearby international shipping lanes to the quiet understory of forested sites. Both Barkley Sound and the adjacent Amphitrite and Swiftsure Banks areas are considered Important Bird Areas (IBA Canada n.d.). Seabirds that breed locally include Brandt's cormorant, pelagic cormorant, pigeon guillemot, tufted puffin, fork-tailed storm-petrel, Leach's storm-petrel, black oyster catcher, glaucous-winged gull, Cassin's auklet, rhinoceros auklet, Glaucous-winged gull, and marbled murrelet. Bird species with a conservation listing include marbled murrelet, Cassin's auklet, double-breasted cormorant,

great blue heron, band-tailed pigeon, barn swallow, common nighthawk, northern goshawk (*laingi* subspecies), peregrine falcon (including *pealei* subspecies), northern pygmy owl, western screech-owl, and olive-sided flycatcher.

5.2 Social Setting

Current Use of Lands and Resources for Traditional Purposes: The Sarita watershed, including the Kwispaa LNG Area, is known to Huu-ay-aht as the “heart of the people” and is an area of significant and ongoing cultural importance to Huu-ay-aht. While much of the Kwispaa LNG Area continues to be disturbed by logging activities and the existing log sort, Huu-ay-aht citizens continue to use the lands and waters in and around the Kwispaa LNG Area for various purposes, including fishing, harvesting bivalves, aquatic plants, and other resources, harvesting wildlife and forest resources, and cultural teaching.

The Project will be located on Huu-ay-aht-owned lands and converted to Treaty Lands subject to Huu-ay-aht jurisdiction and exclusive use. The *ḥahuuḥi* of each Maa-nulth First Nation is recognized and shown on maps as part of the Maa-nulth Final Agreement, and rights are identified throughout the *ḥahuuḥi*. Huu-ay-aht, Yuuḥuḥiḥath Nation, Uchucklesaht Tribe, Toquaht Nation, and Ka:’yu:’k’t’h’/Che:k’tles7et’h’ First Nations have harvesting and other rights on *ḥahuuḥi* outside of their respective Treaty Lands, including the right to harvest, trade, and barter fish, wildlife and migratory birds for food, social, and ceremonial purposes as set out in the Maa-nulth Final Agreement (INAC 2010).

The Maa-nulth Wildlife Harvest, Migratory Bird Harvest, and Domestic Fishing Areas are all located in Barkley Sound where Maa-nulth First Nations have non-exclusive harvesting rights for food, social, and ceremonial purposes. The Maa-nulth Final Agreement provides harvesting allocation by species, species group, and for salmon specific runs by species (INAC 2010).

Historically, Tseshahḥ used their traditional territory as a seasonal round. In late winter and early spring, Tseshahḥ travelled to traditional sites in Barkley Sound to harvest sea mammals, halibut, rockfish, and salmon. As the seasons changed, Tseshahḥ followed the salmon up Alberni Inlet to the Somass River (Tseshahḥ First Nation 2012). Hupačasath traditional use included hunting, fishing, berry and fruit picking, spearing, trapping, seafood gathering, preparing fish, camping, and potlatching. Traditional activities continue to take place on the five Tseshahḥ reserves. Qualicum First Nation members continue to undertake traditional activities in their territory. K’ómoks First Nation traditional territory is known as the Land of Plenty, providing K’ómoks people with traditional foods from hunting, fishing, and gathering (K’ómoks First Nation 2018). We Wai Kai First Nation cultural sites across the traditional territory include old village sites, fish traps, clam gardens, and culturally modified trees. We Wai Kai members continue to fish, gather traditional foods and medicines, harvest cedar for textiles, and hunt and trap in the traditional territory. The Nation is active in protecting lands and waters of the traditional territory (Laich-Kwil-Tach Treaty Society 2017).

Non-Traditional Land Use: The Kwispaa LNG Area falls within Tree Farm Licence 44, held by Western Forest Products Inc. (MFLNRO 2011), which currently operates a log sort on an upland portion of Kwispaa LNG Area and undertakes log booming within Nuumaqimiis Bay (**Figure 5-1**). From the early 1950s to the late 1960s, the site housed a larger forestry operation with buildings, a fuel station, and a residential area, in addition to approximately 35 homes. On-site logging activities, including the Western Forest Products Inc. log sort and log booming activities in Nuumaqimiis Bay within the Kwispaa LNG Area, would conclude prior to the Project proceeding to its construction phase. Water supply to the forestry operations is piped from Frederick Lake, which is located approximately 3 km south of the upland sort.



Figure 5-1 Log Sort Facility

The closest known residence is located on the west side of the Sarita River, approximately 500 m east of the Kwispaa LNG Area (**Figure 3-1**). A cemetery is located to the northeast of the Kwispaa LNG Area. The Pacific Rim National Park Reserve is located approximately 15 km south and west of the Kwispaa LNG Area, and the Pachena Bay Trailhead of the West Coast Trail is situated 5 km south of Bamfield.

Water Use: The Barkley Sound and Alberni Inlet region remains an important commercial and recreational fishing area, and Barkley Sound is a popular sea kayaking destination (**Figure 3-1**). Anchorages and dive sites are located in Trevor Channel, as are kayak routes, such as Broken Group Islands in the marine portion of the Pacific Rim National Park Reserve. Poett Nook Marina and Campground is located approximately 15 km northeast of Bamfield and 1 km west of Sarita and has berths for 140 vessels as well as a 130-site campground. A Provincial ecological reserve is located northwest of Tzartus Island. Barkley Sound is also currently used for a variety of Indigenous, commercial, and recreational purposes, including finfish and shellfish fishing, diving, kayaking, camping, and sail and marine transportation. Passenger ferries, fishing vessels, and whale and bear watching vessels travel through Barkley Sound from Tofino and Ucluelet. Alberni Inlet, Trevor Channel, and adjacent waters, are used by large commercial vessels transiting to and from Port Alberni, including cargo ships, bulk carriers, hazardous material transports, tugs, and barge vessels, as well as pilot boats. In addition, log booming occurs in Nuumaqimyis Bay, where boom boats move logs onto the booms.

The Developer has committed to participate in Transport Canada's voluntary TERMPOL, a process focused on vessel safety and operation in Canadian waters along the proposed shipping route. LNG carriers bound for the Project will be boarded by BC Coast Pilots at Cape Beale Pilot Station, which is located approximately 1.9 to 3.7 km (1 to 2 nautical miles) offshore from Cape Beale (**Figure 2-2**). LNG carriers will then proceed

northeast into Trevor Channel to the Kwispaa LNG Area. Loaded LNG carriers would follow the same route back out to the Pacific Ocean.

5.3 Economic Setting

Historically, the economy in the ACRD has been based on agriculture, forestry, fishing, and tourism. The relative importance of these resource industries has changed over the years, but they continue to serve as economic drivers (ACRD 2015). The closest communities to the Kwispaa LNG Area are Anacla and Bamfield. Approximately 15% of Huu-ay-aht citizens and their families live in the village. The village is close to many tourism opportunities, and some Anacla residents work in the tourism industry. Citizens living in the village also work for their Nation, in the forestry sector, in private business, and the commercial fishery. Huu-ay-aht is proud that their village has zero unemployment. The village is also home to an early childhood education centre (Paawats) and an education centre (čitx*aama cix*atin). Bamfield's largest employer is the Bamfield Marine Sciences Centre. Tourism operators based in Bamfield include fishing charters, whale watching operators and eco-tours, kayak guides, and water taxis (Bamfield Chamber of Commerce 2018). In addition to the Marine Sciences Centre and tourism, commercial fishing remains economically and culturally important to the community, including the seasonal prawn-by-trap fishery and aquaculture operations (BC Community Networks Association n.d.). The communities of Port Alberni, Tofino, and Ucluelet are also in the ACRD and serve as hubs for tourism activities.

5.4 Health Setting

The Kwispaa LNG Area is located in the Alberni Local Health Area ("LHA"), which is one of 14 LHAs in the Central Island Health Service Delivery Area, which covers 6,904 km² and includes the communities of Port Alberni, Tofino, Ucluelet, and Bamfield (Island Health 2016). Health profiles for the Alberni LHA indicate that health outcomes, including such factors as income, education, employment, life expectancy, and chronic disease, in these areas are generally lower than the BC average.

5.5 Heritage Setting

The Maa-nulth Final Agreement contains provisions for cultural sites and activities throughout the ḥahuuḷi, including traditional harvesting activities for trade and barter, protection of important cultural sites, the ability to apply appropriate names to places and features in ḥahuuḷi, and transfer of Maa-nulth artifacts back to the First Nations from museums. None of the cultural sites and activities specified in Chapter 21 of the Maa-nulth Final Agreement are located within or adjacent to the Kwispaa LNG Area, and the Kwispaa LNG Team is not aware of any other Maa-nulth First Nations cultural sites located in or adjacent to the Kwispaa LNG Area.

5.6 Potential Project-related Effects under CEAA 2012 Requirements

The construction and operation of the Project will alter the physical environment at and around the Kwispaa LNG Area. As required by the *Prescribed Information for the Description of a Designated Project Regulations*, potential Project-related changes are anticipated for fish, fish habitat, marine plants, and migratory birds. The Project also has the potential to result in environmental changes on Federal lands or lands outside of Canada. Potential Project-related changes to the environment within Canada may affect Huu-ay-aht and other Indigenous groups.

Fish and Fish Habitat: The Project has the potential to cause serious harm to fish, as defined in the *Fisheries Act*, including permanent alteration or destruction of freshwater and marine fish habitat due to Project footprint and activities; acidification or eutrophication of water due to air emissions (freshwater); fish mortality; changes in marine and freshwater quality and quantity, to fish food and nutrient content, and in fish behaviour due to altered marine habitat, underwater noise, and pressure waves.

Marine Plants and Algae: Potential Project-related effects to aquatic plant species, as defined in the *Species at Risk Act*, and marine plants, as defined in the *Fisheries Act*, include changes in habitat quality, effects from seabed disturbance, loss of habitat from shading of marine vegetation and construction and decommissioning of infrastructure, and mortality associated with Project construction.

Migratory Birds: Potential Project-related effects to migratory birds, as defined in the *Migratory Birds Convention Act*, SC1994, c. 22, include direct and indirect loss of habitat and potential habitat due to the Project footprint and from sensory disturbance; behavioural response changes from sensory disturbance; creation of barriers to movement; and mortality.

Marine Mammals: Potential Project-related effects to marine mammals, as defined in the *Fisheries Act*, include direct and indirect loss of habitat and potential habitat due to sensory and other disturbance, behavioural response due to sensory disturbance, and mortality.

5.6.1 Changes on Federal Lands, Other Provinces, or Outside of Canada

The Kwispa LNG Area is located on Huu-ay-aht Treaty Land and fee simple land owned by Huu-ay-aht as well as land and water lots administered by the Provincial Government. The Kwispa LNG Area is not located on any Federal lands or reserves and is not within the waters or lands administered by a Canada Port Authority. The route to be used by LNG carriers calling on the Project through Trevor Channel will pass near the Pacific Rim National Park Reserve. Atmospheric emissions from the Project may disperse over or deposit on nearby Federal lands (e.g., First Nations reserves). The shipping activities associated with the Project may also affect the shorelines of Federal land parcels, specifically from accidents or malfunctions. No adverse environmental effects in a territory or province other than BC are anticipated. The Kwispa LNG Area's location, approximately 50 km from the Canada-US border in the Strait of Juan de Fuca and approximately 60 km from the tip of the Olympic Peninsula in Washington state, may result in air emissions dispersing over or depositing on US lands or waters.

5.6.2 Project-related Effects to Huu-ay-aht First Nations and Other Indigenous Groups

Under CEAA 2012, subsection 5(1)(c), the Project may result in changes to health and socio-economic conditions, physical and cultural heritage, the current and future use of land and resources, and any structure, site, or thing that is of historical, archaeological, or architectural significance to Huu-ay-aht and other Indigenous groups. The Project and associated marine shipping activities may interrupt access to sites used for traditional purposes and may otherwise impact fish and other aquatic resources. The environmental impacts of the Project, including land clearing, will be concentrated on Huu-ay-aht-owned and Treaty Lands and the adjacent marine waters. For safety reasons, Huu-ay-aht citizens will not be able to use the Kwispa LNG Area for any other purpose, including traditional purposes. The Sarita Cultural Protection Line was designed to avoid Huu-ay-aht cultural heritage sites identified by Huu-ay-aht citizens.

Emissions from the Project may cause degraded air quality and affect the health of Huu-ay-aht citizens and other Maa-nulth Nations using lands and waters. Sensory disturbance or degradation due to noise or light may also alter the current use of lands and waters for traditional purposes and affect traditional lifestyle values. In addition, potential effects to the rights and interests of other Maa-nulth Nations may arise from the dispersion of emissions and marine shipping activities. Emissions from the facility (including emissions of criteria air contaminants and noise) may affect the health of other Maa-nulth First Nations using lands and waters affected by those emissions. Sensory disturbance due to noise or light could also potentially alter the current use of lands and waters by those Nations for traditional purposes.

Disturbance from the Project may also affect Huu-ay-aht cultural continuity. Changes to the environment that affect fish and wildlife habitat, or the quality or quantity of resources harvested by Huu-ay-aht citizens (such as fish, bivalves, plants, and other animals) may affect their health and their ability to sustain commercial livelihoods or cultural activities dependent on those resources. Increased reliance on non-traditional foods and other resources also may affect the health and socio-economic well-being of Huu-ay-aht citizens. At the same time, employment and contracting opportunities generated by the Project will result in local economic opportunities and economic benefits to Huu-ay-aht and other Maa-nulth citizens, though potential environmental changes affecting the quality or quantity of marine resources harvested by other Maa-nulth First Nations could affect commercial livelihoods or cultural activities dependent on those resources.

Project construction and operations may result in damage to sites of historical, archaeological, or architectural importance and potentially interrupt cultural heritage activities undertaken by Huu-ay-aht citizens. Similarly, site clearing may affect traditional terrestrial harvesting activities. Site clearing may also affect streams via erosion and flooding, which could impact water quality and fish habitat. An accident or malfunction arising from marine shipping activities could alter sites of historical, archaeological, paleontological, or architectural importance and could interrupt cultural heritage activities undertaken by Maa-nulth First Nations. The marine shipping activities associated with the Project could potentially interrupt access to sites used for traditional purposes such as the harvesting of aquatic resources. The Kwispa LNG Team will engage with potentially affected Maa-nulth First Nations to understand how the Project may interact and affect each Nation and collaboratively identify potential mitigation measures.

5.7 Other Potential Environmental, Economic, Social, Heritage, and Health Effects

To support the BC EAO in determining the need for and potential scope of a Provincial EA, a summary of the potential environmental, economic, social, heritage, and health effects of the Project has been prepared based on general knowledge of the Project and the existing natural and human environment.

Construction of the Project will involve disturbance of on-site vegetation, soils, and underlying bedrock, surface water, marine sediments, and existing ecological processes. Marine water quality may be altered by sediment disturbance during Project construction and by the possible desalination of domestic and safety water on the ASLNG™ production units. The presence of the marine terminals/ jetties and the floating ASLNG™ production units may alter currents and sediment dynamics in or near the Kwispa LNG Area. Light and noise generated by Project activities will alter visual and sound conditions at and for some distance around the Kwispa LNG Area and activities. Construction of a new electric transmission line (should an option to provide power the facility Project with electricity from the Provincial grid be pursued) will involve vegetation clearing and ground disturbance. The electric transmission line may also alter the visual condition of the landscape, although where possible the electric transmission line will be routed to align

with existing utility corridors and roads to the Kwispa LNG Area. Accidents or malfunctions, including those arising from marine shipping activities associated with the Project such as a fire or a spill, could alter air, sediment, and water quality.

As set out in the Relationship Agreements, the Kwispa LNG Team has committed to providing employment and business opportunities for qualified Huu-ay-aht citizens and immediate family members through the lifecycle of the Project. The Project will therefore increase the number and type of direct, indirect and induced opportunities for employment as well as create more diverse opportunities for local contracting and procurement. The Project will also provide employment and business opportunities for other Indigenous groups and local residents. Furthermore, Project expenditures (including taxes) throughout all phases of design, construction, operations, and decommissioning may positively affect government revenues and regional economic development.

These changes in the physical environment, as well as Project expenditures and employment, may result in potential environmental, economic, social, heritage, or health effects. These adverse effects (prior to the application of mitigation measures) are summarized in **Table 5-1** below along with the Project-related activities with the potential to cause these effects. Based on this preliminary identification of potential Project-related adverse effects, initial measures to prevent or reduce these effects to an acceptable level have been incorporated or are currently being considered in the design of the Project. These include siting the facility (i) away from human settlement, (ii) on an existing partially disturbed industrial site and on land that has been logged, (iii) at a location that is removed from the Sarita River and its estuary, and (iv) adjacent to existing shipping lanes. Use of air cooling instead of seawater cooling has been incorporated into the design to reduce potential effects on the marine environment. Design considerations include incorporating measures to minimize noise and light. Further, the selection of electric drives for the ASLNG™ production units support the possibility to further reduce emissions for the Project through electrification, if feasible. Additional design considerations include configuring the Project layout to minimize visual disturbance and maintain access to important traditional use areas as much as possible. Consideration will be given to siting the facility water intakes and design to minimize entrainment. As the design of the Project continues to progress, additional measures to mitigate potential effects will be incorporated based on compliance with standards and codes of practice; best management practices; future Project-specific management plans; and other Project-specific measures.

Table 5-1 Potential Project-related Effects

Component	Key Project Components/ Activities	Potential Adverse Project Effect
Environment		
Marine Vegetation	<ul style="list-style-type: none"> • Construction: Potential removal and disposal of marine sediments, construction of marine jetties, permanent mooring of the ASLNG™ production units, potential blasting and grading • Operations: Mooring, loading and transit of LNG carriers, wastewater, stormwater, and process water treatment and disposal • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units 	<ul style="list-style-type: none"> • Distribution, abundance, and health of marine vegetation, including species at risk, may be affected by potential changes in marine water and sediment quality, currents, sediment dynamics, and light conditions (e.g., shading due to fixed or floating structures) • Changes to habitat quality, including the habitat of species at risk, may result from seabed disturbance • Marine vegetation, including species at risk, may be damaged by physical structures or accidental discharges • Introduction of exotic species from marine vessels and foreign equipment may alter local ecological conditions
Marine Invertebrates	<ul style="list-style-type: none"> • Construction: Potential removal and disposal of marine sediments, construction of marine jetties, permanent mooring of the ASLNG™ production units, potential blasting and grading • Operations: Mooring, loading and transit of LNG carriers, wastewater, stormwater, and process water treatment and disposal • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units 	<ul style="list-style-type: none"> • Changes in currents, sediment dynamics, and marine water and sediment quality may affect the distribution, abundance, and health of marine invertebrates, including species at risk • Introduction of exotic species from marine vessels and foreign equipment may alter local ecological conditions

Component	Key Project Components/ Activities	Potential Adverse Project Effect
Marine Fish and Fish Habitat	<ul style="list-style-type: none"> • Construction: Potential removal and disposal of marine sediments, construction of marine jetties, permanent mooring of the ASLNG™ production units, potential blasting and grading • Operations: Mooring, loading and transit of LNG carriers, wastewater, stormwater, and process water treatment and disposal • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units 	<ul style="list-style-type: none"> • Permanent alteration or destruction of fish habitat, including the habitat of species at risk, may occur due to Project footprint and activities as well as possible changes in marine water quality • Injury or mortality of marine fish, including species at risk, may result from changes in marine water and sediment quality (including turbidity), underwater noise, and possible seawater withdrawal (for desalination of domestic and safety water on the ASLNG™ production units) • Behavioural modifications in marine fish, including species at risk, may occur due to underwater noise and pressure waves associated with installation of Project marine structures • Changes in food sources (marine vegetation and invertebrates) and nutrient content may affect marine fish health, include species at risk • Introduction of exotic species from marine vessels and foreign equipment may alter local ecological conditions
Marine Mammals	<ul style="list-style-type: none"> • Construction: Potential removal and disposal of marine sediments, construction of marine jetties, permanent mooring of the ASLNG™ production units, potential blasting and grading • Operations: Mooring, loading and transit of LNG carriers, wastewater, stormwater, and process water treatment and disposal • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units 	<ul style="list-style-type: none"> • Changes in marine water quality and food sources may affect marine mammal health, including species at risk • Potential injury or mortality to marine mammals, including species at risk, may result from collision with marine shipping associated with the Project • Underwater noise from construction activities, operations, and marine shipping activities associated with the Project may result in behavioural changes or interrupt communication or feeding of marine mammals, including species at risk • Introduction of exotic species from marine vessels and foreign equipment may alter local ecological conditions

Component	Key Project Components/ Activities	Potential Adverse Project Effect
<p>Freshwater Fish and Fish Habitat</p>	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, construction of water supply system, installation of stormwater management, erosion prevention, and sediment control measures, potential mixing of concrete, construction of electric transmission line • Operations: Water collection, treatment and use • Decommissioning: Removal of water supply system 	<ul style="list-style-type: none"> • Permanent alteration or destruction of fish habitat, including the habitat of species at risk, may occur due to Project footprint and activities as well as changes in water quality/quantity. This may include acidification of water due to air pollution (sulphur and nitrogen levels) or eutrophication of surrounding water bodies • Quality of fish habitat, including the habitat of species at risk, may be degraded by sedimentation, removal of existing riparian vegetation, or discharges of deleterious substances • Quantity of fish habitat may be altered by diversion of surface water or changes in flow (drawdown) • Mortality of fish, including species at risk, may occur due to altered flow (stranding) and alteration of instream habitat
<p>Terrestrial Vegetation (including wetlands)</p>	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, construction of water supply system, installation of stormwater management, erosion prevention, and sediment control measures, mobilization and construction of onshore components, potential mixing of concrete, upgrading and construction of on-site roads, installation of perimeter fencing, construction of electric transmission line, potential rehabilitation and stabilization of areas not required for the operations phase • Operations: Power generation, aggregation and distribution, water collection, treatment and use, liquefaction of natural gas, storage and loading of LNG carriers, accommodation of workers • Decommissioning: Removal of onshore Project components 	<ul style="list-style-type: none"> • Removal of vegetation may reduce available habitat, including the habitat of species at risk • Proliferation of non-native and invasive species may reduce biodiversity and reduce habitat quality, including the habitat of species at risk • Changes in air, sediment/soil, and/or water quality may damage vegetation and degrade or reduce available habitat, including the habitat of species at risk. This may include acidification of water bodies, soil and vegetation due to sulphur dioxide and nitrogen dioxide deposits or eutrophication of water bodies

Component	Key Project Components/ Activities	Potential Adverse Project Effect
Terrestrial Wildlife	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, construction of water supply system, installation of stormwater management, erosion prevention, and sediment control measures, mobilization and construction of onshore components, potential mixing of concrete, upgrading and construction of on-site roads, installation of perimeter fencing, construction of electric transmission line, potential rehabilitation and stabilization of areas not required for the operations phase • Operations: Power generation, aggregation and distribution, water collection, treatment and use, liquefaction of natural gas, storage and loading of LNG carriers, accommodation of workers • Decommissioning: Removal of onshore Project components 	<ul style="list-style-type: none"> • Loss or degradation of terrestrial habitat may occur due to changes in vegetation, soil, water quality and quantity, and air quality, or to nuisance effects resulting from noise and light generated by the Project • Construction of an electric transmission line may result in habitat fragmentation • Changes in movement patterns of wildlife, including species at risk, may occur due to displacement by Project activities • Injury or mortality to wildlife, including species at risk, may result from land clearing activities and from traffic associated with Project infrastructure (e.g., roads)

Component	Key Project Components/ Activities	Potential Adverse Project Effect
<p>Birds (including migratory birds as defined in subsection 2(1) of the <i>Migratory Birds Convention Act</i>)</p>	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, mobilization and construction of onshore components, potential mixing of concrete, upgrading and construction of on-site roads, installation of perimeter fencing, construction of electric transmission line, potential rehabilitation and stabilization of areas not required for the operations phase • Operations: Power generation, aggregation and distribution, liquefaction of natural gas, mooring, loading and transit of LNG carriers, accommodation of workers • Decommissioning: Removal of onshore Project components 	<ul style="list-style-type: none"> • Direct loss of habitat and potential habitat, including the habitat of species at risk, may result from activities on the Project footprint • Indirect loss of habitat and potential habitat, including the habitat of species at risk, may occur due to sensory disturbance and change in behaviour associated with construction and operations activities, including noise, light, air emissions, and human presence • Loss or degradation of habitat, including the habitat of species at risk, may occur due to changes in vegetation, soil, water quality and quantity, and air quality or to nuisance effects (e.g., noise, light, human presence) • Loss or degradation of potential marine foraging and roosting habitat, including the habitat of species at risk may occur due to reduced marine vegetation productivity (caused by shading from floating Project infrastructure), air emissions and underwater disturbance (e.g., noise during construction) • Increased energy expenditure may occur from disturbance relating to avoidance of transiting vessels • Disturbance or destruction of active nests, including those of species at risk, may occur during construction • Barriers to movement may be created • Injury or mortality to birds, including species at risk, may occur from increased collision risk associated with transiting vessels or other Project infrastructure (e.g., tall structures, powerlines, flares, cables)

Component	Key Project Components/ Activities	Potential Adverse Project Effect
Economic		
Local and Regional Economy	<ul style="list-style-type: none"> • Construction: All construction activities • Operations: All operations activities • Decommissioning: All decommissioning activities 	<ul style="list-style-type: none"> • Direct and indirect Project demands for goods and services may influence the availability of goods and services at a local level • Potential disruption of local businesses (e.g., tourism operators) if new tourism customers hold a negative perception of the Project
Labour Market	<ul style="list-style-type: none"> • Construction: All construction activities • Operations: All operations activities • Decommissioning: All decommissioning activities 	<ul style="list-style-type: none"> • Project employment may result in changes to the local and regional labour market • Project employment may result in changes in local annual wage and salary levels as well as labour income
Social		
Infrastructure and Services	<ul style="list-style-type: none"> • Construction: All construction activities • Operations: All operations activities • Decommissioning: All decommissioning activities 	<ul style="list-style-type: none"> • Project employment may result in temporary and permanent in-migration of workers, which could increase the demand for supporting social and health infrastructure, services, and housing • Increased road traffic may result in degradation of Bamfield Road
Current and Future Use of Lands and Resources	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, construction of water supply system, mobilization and construction of onshore components, construction of marine jetties, upgrading and construction of on-site roads, installation of perimeter fencing, permanent mooring of the ASLNG™ production units, construction of electric transmission line, accommodation of workers in a temporary construction camp • Operations: Power generation, aggregation and distribution, liquefaction of natural gas, mooring, loading and transit of LNG carriers, accommodation of workers in the workforce accommodation buildings • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units, removal of onshore components 	<ul style="list-style-type: none"> • Access to lands, waters, and resources currently used for traditional purposes may be affected or disrupted • The quality or quantity of resources currently used for traditional purposes may be affected or reduced (e.g., through site clearing, increased road traffic) • The quality of the current use experience may be affected due to nuisance effects (e.g., noise, light) or changes in air or water quality • The ability to transfer Indigenous knowledge and fulfil the cultural purpose of current use activities may be affected

Component	Key Project Components/ Activities	Potential Adverse Project Effect
<p>Land, Water, and Resource Use (including recreational and commercial uses)</p>	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, construction of water supply system, mobilization and construction of onshore components, construction of marine jetties, upgrading and construction of on-site roads, installation of perimeter fencing, permanent mooring of the ASLNG™ production units, construction of electric transmission line, accommodation of workers in a temporary construction camp • Operations: Power generation, aggregation and distribution, liquefaction of natural gas, mooring, loading and transit of LNG carriers, accommodation of workers in the workforce accommodation buildings • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units, removal of onshore components 	<ul style="list-style-type: none"> • Current forestry and commercial land and water uses in the Kwispaa LNG Area will cease • Access to land, water, and resources at or adjacent to the Kwispaa LNG Area (and along the route to be used by LNG carriers) may be affected • Use of land, water, and resources at or adjacent to the Kwispaa LNG Area (and along the route to be used by LNG carriers) may be affected by potential changes in air or water quality, increases in road traffic, changes in the distribution, abundance, or quality of resources (e.g., shellfish, fish, plants, or other animals), and nuisance effects (e.g., noise, light)
<p>Community Health and Well-being</p>	<ul style="list-style-type: none"> • Construction: All construction activities • Operations: All operations activities • Decommissioning: All decommissioning activities 	<ul style="list-style-type: none"> • The influx of workers to the local communities surrounding Kwispaa LNG Area may result in adverse effects on vulnerable sub-populations, such as children and youth, seniors and low-income families. Adverse effects may include: <ul style="list-style-type: none"> ▪ increased risk of communicable and non-communicable diseases ▪ increased drug and alcohol use ▪ increased crime ▪ adverse effects on mental health and wellness ▪ change in accidents and injuries ▪ increased pressure on health services structure and capacity ▪ adverse effects on community quality of life

Component	Key Project Components/ Activities	Potential Adverse Project Effect
Visual Quality	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, mobilization and construction of onshore components, construction of marine jetties, upgrading and construction of on-site roads, installation of perimeter fencing, permanent mooring of the ASLNG™ production units, construction of electric transmission line • Operations: Mooring, loading and transit of LNG carriers • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units, removal of onshore components 	<ul style="list-style-type: none"> • Physical changes to the Project site may affect the visual quality at the Project site and surrounding area
Heritage		
Archaeological and Heritage Resources (including sites of historical, archaeological, palaeontological, and architectural importance)	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, mobilization and construction of onshore components, upgrading and construction of on-site roads, construction of electric transmission line • Operations: Planned and unplanned maintenance • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units, removal of onshore components 	<ul style="list-style-type: none"> • Loss of or damage to archaeological and heritage resources (including contextual information) may occur due to ground disturbance, shoreline erosion (from wake waves), or accidental spills from marine shipping activities associated with the Project

Component	Key Project Components/ Activities	Potential Adverse Project Effect
Health		
Human Health	<ul style="list-style-type: none"> • Construction: Potential clearing and grubbing, potential blasting and grading, construction of water supply system, mobilization and construction of onshore components, construction of marine jetties, upgrading and construction of on-site roads, installation of perimeter fencing, permanent mooring of the ASLNG™ production units, construction of electric transmission line, accommodation of workers in a temporary construction camp • Operations: Power generation, aggregation and distribution, liquefaction of natural gas, mooring, loading and transit of LNG carriers, accommodation of workers in the workforce accommodation buildings • Decommissioning: Removal of marine jetties, removal of the ASLNG™ production units, removal of onshore components 	<ul style="list-style-type: none"> • Changes in air, water, soil, or sediment quality may result in changes in health risks to individuals exposed to those media • Changes in air, water, soil, or sediment quality that alter the quality of country foods (both plants and animals) may affect the health of individuals who consume them • Changes in ambient noise and light conditions may result in direct and indirect changes to human health

6 Engagement and Consultation

The Kwispaa LNG Team understands and recognizes the importance of developing long-term, respectful, and meaningful relationships with Indigenous groups communities and interested stakeholders potentially affected by the Project. Huu-ay-aht's Sacred Principles of ʔiisaak (Greater Respect), Hišuk ma čawak (Everything is One), and ʔuuʔaʔuk (Taking Care Of...) guide the Kwispaa LNG Team's activities to develop the Project in a manner that minimizes potential environmental, traditional, and socio-economic effects and provides long-term benefits for current and future generations.

The Kwispaa LNG Team's approach to engagement and consultation is based on the principles of respect; collaboration; responsiveness; timeliness; and honest and open communication. The Kwispaa LNG Team initiated early engagement with potentially affected Indigenous groups and communities to introduce the Project through 2014 and 2015 and re-initiated engagement activities through 2017 and 2018, following the signing of the Relationship Agreements between the Developer and Huu-ay-aht. The Kwispaa LNG Team is committed to ongoing, meaningful, and collaborative engagement and consultation with potentially affected Indigenous groups, communities and interested stakeholders through the EA process and life of the Project.

6.1 Indigenous Engagement

Pursuant to the co-management principles established between Huu-ay-aht and the Developer, early relationship building and initial engagement with potentially affected Indigenous groups is being led by Huu-ay-aht following a traditional protocol approach. This approach seeks to build relationships at this early stage in a culturally appropriate manner and to understand how the potentially affected Indigenous groups wish to develop a relationship and be engaged in respect of the Project. The Kwispaa LNG Team has identified the following Indigenous groups as potentially being affected by aspects of the Project, including a possible electric transmission line (in alphabetical order):

- Hupačasath First Nation;
- Maa-nulth Treaty Society –
 - Ka'yu:k't'h'/Che:k'tles7et'h' First Nations;
 - Toquaht Nation;
 - Uchucklesaht Tribe;
 - Yuuʔuʔiʔaʔ Nation (formerly Ucluelet First Nation);
- Nanwakolas Council Society –
 - K'ómoks First Nation;
- Métis Nation British Columbia;
- Qualicum First Nation;
- Tseshaht First Nation; and
- We Wai Kai Nation.

The Kwispaa LNG Team has initiated early engagement with potentially affected Indigenous groups to develop relationships, understand how each Nation wishes to be engaged, and seek initial feedback on their interests in respect of the Project. The Developer provided a draft of the Project Description to Indigenous groups potentially affected by the Project and has sought to include feedback received in a manner that respects each Nation's interests. Early initial feedback from potentially affected Indigenous groups in respect of the Project has included:

- interests and concerns in relation to potential effects on marine resources, including harvesting and access;
- potential effects on fish migration and abundance as a result of interactions with shipping activities;
- concerns regarding impacts from a possible seismic activity and/or tsunami and an interest in safety measures;
- potential effects on the marine environment as a result of potential accidents and malfunctions from shipping activities and an interest in emergency response and safety planning;
- cumulative effects of shipping, including an increase in carrier traffic, and other activities;
- concerns regarding an increase in GHG emissions;
- interest in participating in the EA process and understanding environmental studies;
- interests in long-term economic benefits and opportunities; and
- interests in training, employment, and business opportunities.

This feedback has been incorporated into the scoping of existing condition studies for the Project, some of which are currently underway.

6.2 Engagement with the Public, Stakeholders, Government, and Other Parties

The Kwispaa LNG Team has developed an initial list of stakeholders and communities that may have an interest in the Project and its associated activities. As a leader in the community, Huu-ay-aht played a leading role in identifying potentially interested stakeholders. The list is not exhaustive and will be updated throughout Project planning and development. The primary audience for the Kwispaa LNG Team's engagement activities are the communities located within the ACRD, specifically Bamfield, Port Alberni, and Ucluelet. Additional communities that may have an interest in the Project as a result of an electric transmission line include Qualicum Beach and Parksville, which are both located within the Regional District of Nanaimo.

Prior to execution of the Relationship Agreements in June 2017, Steelhead LNG and Huu-ay-aht engaged with key stakeholders and communities to introduce the Project, provide information, and seek feedback. Since entering the co-management relationship, the Kwispaa LNG Team has initiated engagement with key stakeholders and communities through presentations and one-on-one meetings. Key stakeholders engaged to date include ACRD; City of Port Alberni; District of Ucluelet; Bamfield community; Port Alberni Port Authority; Alberni Valley Chamber of Commerce; Bamfield Marine Sciences Centre; Ucluelet Chamber of Commerce; Vancouver Island Economic Alliance; Port Alberni Rotary (Arrowsmith) Club; Port Alberni Rotary Club; INEO Employment Services; North Island College; and Association of Vancouver Island and Coastal Communities.

To establish a local presence and provide ongoing informal opportunities for information sharing, the Kwispa Team expects to hold office hours in the Huu-ay-aht Government Office and will continue to build its local presence in both Port Alberni and Bamfield/Anacla. Team members will have access to Project information, such as display boards, brochures, and information sheets. Information on the Project is also available at www.kwispaalng.com as well as on Steelhead LNG's (www.steelheadlng.com) and Huu-ay-aht First Nations' (www.huuayaht.org) websites. Interested stakeholders and others can also contact the Kwispa LNG Team via email (info@kwispaaLNG.com) and telephone.

Through the Kwispa LNG Team's early engagement with stakeholders and the public, several key areas of interest have been identified in relation to the Project, including:

- economic revitalization and diversification opportunities and local benefits, including direct and indirect business, contracting, and employment opportunities;
- broad support for the co-management relationship between the Developer and Huu-ay-aht and recognition of the unique approach as a strong example of reconciliation between industry and First Nations;
- potential effects from facility emissions and an interest in reducing emissions;
- potential effects on the natural environment, including marine mammals and resources;
- potential effects on marine mammals, including humpback whales, as a result of increased shipping activities;
- concerns regarding potential accidents or malfunctions, including marine accidents or fuel spills, and an interest in ensuring effective emergency response measures;
- concerns regarding potential effects as a result of a seismic event or tsunami;
- concerns regarding increased shipping traffic and impacts to recreational and commercial fisheries;
- potential socio-economic effects, including effects on housing prices, tourism activities, and an increase in regional traffic;
- concerns about the cumulative effects of the Project and the Port Alberni Transshipment Hub Project (<https://biv.com/article/2017/05/new-path-port-alberni>);
- the possibility of the Port Alberni Port Authority extending its jurisdiction to include the shipping route to/from the Kwispa LNG Area, enabling the enforcement of formal exclusion zones; and
- interests from many groups regarding possible employment opportunities.

6.3 Engagement with Government and Regulatory Agencies

The Kwispa LNG Team has initiated engaged with a number of regulatory agencies and government ministries to date that may have an interest in the Project and its associated activities. Provincial agencies and ministries engaged to date include the BC EAO; BC Ministry of Indigenous Relations and Reconciliation; BC Ministry of Energy, Mines, and Petroleum Resources; BC Ministry of Environment and Climate Change Strategy; BC Oil and Gas Commission; BC Ministry of Forests, Lands and Natural Resource Operations; BC Ministry of Jobs, Tourism and Skills Training and Responsible for Labour; and BC Hydro. Federal agencies and ministries engaged to date include CEA Agency; Natural Resources Canada; Environment and Climate

Change Canada; Indigenous and Northern Affairs Canada; DFO; and Transport Canada. The Kwispaa LNG Team has also engaged with the elected officials whose ridings overlap with the Kwispaa LNG Area to provide an overview of the Project and seek feedback on Project-related interests and concerns, including Member of Parliament for Courtenay-Alberni, Gord Johns and Member of the Legislative Assembly and Minister of Indigenous Relations and Reconciliation for the BC Mid Island – Pacific Rim region.

6.4 Ongoing and Proposed Activities

The Kwispaa LNG Team will continue to engage potentially affected Indigenous groups to share Project information, identify interests and concerns, listen to and consider feedback received and work collaboratively to identify measures to address potential adverse effects. The Kwispaa LNG Team recognizes that the Section 11 Order will identify and delegate procedural aspects of consultation to the Developer pursuant to the EA process. Activities conducted following the Section 11 Order will be guided by an Indigenous Consultation Plan, which will be developed pursuant to the requirements outlined in the Section 11 Order.

The Kwispaa LNG Team will continue to engage local communities and affected and interested stakeholders to listen to feedback and interests, understand community values and plans, understand how the Project may affect communities and stakeholders, and work collaboratively to identify measures to mitigate or address Project effects. The Kwispaa LNG Team will work to continue to develop relationships that are lasting and positive with communities with the goal of being a long-term, meaningful contributor to the local economy.

The Kwispaa LNG Team has initiated engagement with regulatory agencies and government ministries to date that may have an interest in the Project and its associated activities. In addition to direct meetings with specific agencies, the Kwispaa LNG Team expects to work closely with the Working Group that will be established by the BC EAO for the duration of the EA process, which is expected to include many of the agencies identified. Engagement through the regulatory process will be guided by the Public Consultation Plan, which will be developed to meet requirements of the Section 11 Order issued by the BC EAO.

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