32230

Crown Land Tenure Application

Tracking Number: 100429149

Applicant Information

If approved, will the authorization be issued to an Individual or Company/Organization?	Company/Organization
What is your relationship to the Company/Organization?	Agent

APPLICANT COMPANY/ORGANIZATION CONTACT INFORMATION

Applicant is an Individual or an Organization to whom this authorization Permit/Tenure/Licence will be issued, if approved.

Name:	City West Management Corp.
Doing Business As:	
Phone:	250-624-2111
Fax:	
Email:	
BC Incorporation Number:	
Extra Provincial Inc. No:	
Society Number:	
GST Registration Number:	
Contact Name:	Stefan Woloszyn
Mailing Address:	- redacted -

REFERRAL / PUBLIC COMMENT CONTACT INFORMATION

Company / Organization:	
Contact Name:	Dereck Wong
Contact Address:	1923 McLean Ave, Port Coquitlam, BC V3C 1N1 Canada
Contact Phone:	604-941-2688
Contact Email:	

AGENT INFORMATION

Please enter the contact information of the Individual/Organization who is acting on behalf of the applicant.

Name:	Darren Dofher
Phone:	- redacted -
Daytime Phone:	- redacted -
Fax:	- redacted -
Email:	- redacted -
Mailing Address:	- redacted -

Letter(s) Attached:	Yes (Baylink Letter of Agency - City West.pdf)

ELIGIBILITY

Question	Answer	Warning
Do all applicants and co-applicants meet the eligibility criteria for the appropriate category as listed below? **Applicants and/or co-applicants who are Individuals must:** **1. Be 19 years of age or older and** **2. Must be Canadian Citizens or permanent residents of Canada (Except if you are applying for an aquatic tenure adjacent to privately owned upland)** **Applicants and/or co-applicants who are Organizations must either:**	Yes	

1. Be incorporated or registered in British Columbia (Corporations also include registered partnerships, cooperatives, and non-profit societies which are formed under the relevant Provincial statutes) or **2. First Nations who can apply through Band corporations or Indian Band and Tribal Councils (Band or Tribal Councils require a Band Council Resolution).**		
Is your application for a funded high-speed internet Connectivity Project?	Yes	To proceed with this application as identified, please provide the following required information in the 'Explanation' box below: 1. Project Name: This should be a consistent title for the project to be referred to throughout the agency review period. 2. Funding Project Number: Usually 4-6 digits (eg. 7152 or 010033), as assigned through Connecting Communities BC (CCBC) or Northern Development Initiative Trust (NDIT) or other official funding programs. 3. Please identify any additional provincial applications for permits/authorizations associated with this specific Connectivity project by providing any tracking/file number(s). For example, vFCBC Tracking Number(s), Crown Land file number(s), Ministry of Transportation and Infrastructure, Forestry, or other provincial natural resource file number. This information will help facilitate the coordinated and efficient multi authorization review (i.e. roadways, BC Hydro infrastructure, etc.). If you have any questions regarding the above information requirements, please contact citz.networkbcpermitting@gov.bc.ca
Is this application in relation to increasing the supply of housing units within British Columbia? **A Housing related project, for the purpose of this application, must be for a specific development and the development must increase the number of housing units on the land/property.**	No	
Explanation for eligibility despite warnings:	1. Connected Coast Project 2. (Connect to Innovate or CTI) #812580 3.1415206, 1415209, 1415210, 1415211 2022-03708 2023-00310	

TECHNICAL INFORMATION

Please provide us with the following general information about you and your application:

EXISTING TENURE DETAILS

Do you hold another Crown Land Tenure?	Yes
Please specify your file number:	1415210, 1415211, 1415212 If you have several file numbers, please make a note of at least one of them above. Example numbers: 1234567, 153245, others

ALL SEASONS RESORTS

The All Seasons Resorts Program serves to support the development of Alpine Ski and non-ski resorts on Crown land. For more detailed information on this program, please see the operational policy. If you have further questions, please contact FrontCounter BC.

Are you applying within an alpine ski resort?	No

WHAT IS YOUR INTENDED USE OF CROWN LAND?

Use the "Add Purpose" button to select a proposed land use from the drop down menu.

In some situations, such as short-term, low-impact use of Crown land or docks/moorage that meet specific criteria, Crown land use is allowed without needing to apply for authorization. Some examples are uses listed within the Land Use Policy - Permissions and, for docks/moorage, within the Private Moorage policy.

For all application types, you should review the Land Use Policy that describes your intended use of Crown land to determine if your activity is permissible under the Land Act.

Purpose	Tenure	Period
Utilities Telecommunication Line	Licence of Occupation	More than thirty years

ACCESS TO CROWN LAND

Please describe how you plan to access your proposed crown land from the closest public road:	There is an existing public road which connects to our requested right of way. If the site does not have an existing access road, then sites will be accessed by boat.

UTILITIES

Applications are accepted for Crown land used for linear public and private utilities, including aquatic land within Provincial Forests and land subject to regulation under the Park Act.

Specific Purpose:	Telecommunication Line
Period:	More than thirty years
Tenure:	Licence of Occupation

TOTAL APPLICATION AREA

Please give us some information on the size of the area you are applying for.

Specify Length:	16990 meters
Specify Width:	1 meters

PROJECT DETAILS

Please provide further information on your application as it may affect your application fee.

Are you providing service to a single residential lot or individual general commercial site?	No
Length of utility line:	16.99 kilometers

ADDITIONAL QUESTIONS

In many cases, you might require other authorizations or permits in order to complete your project. In order to make that determination and point you in the right direction, please answer the questions below. In addition, your application may be referred to other agencies for comments.

Is the Applicant or any Co-Applicant or their Spouse(s) an employee of the Provincial Government of British Columbia?	No
Are you planning to cut timber on the Crown Land you are applying for?	No
Are you planning to use an open fire to burn timber or other materials?	No
Do you want to transport heavy equipment or materials on an existing forest road?	No
Are you planning to work in or around water?	Yes

1. If you will be working in or around fresh water, you will require a Water Sustainability Act Change Approval or Notification from the Province.
2. The federal Department of Fisheries and Oceans might need to review your project.
3. Review the Transport Canada website if the Navigation Protection Act applies.

Does your operation fall within a park area?	No

LOCATION INFORMATION

LAND DETAILS

DRAWINGS

Please provide information on the location and shape of your Crown land application area. You can use one or more of the tools provided.

ATTACHED DOCUMENTS

Document Type	Description	Filename
General Location Map	Mapping	1415218 - 20231023.shx
Management Plan	Management Plan	Management Plan - Block 12.pdf
Other	Agency Letter	Baylink Letter of Agency - ...
Other	GIS Files	1415218 - 20231023.dbf
Other	GIS Files	1415218 - 20231023.prj
Other	GIS Files	1415218 - 20231023.sbn
Other	GIS Files	1415218 - 20231023.sbx

Other	GIS Files	1415218 - 20231023.shp
Other	GIS Files	1415218 - 20231023.shp.xml
Other	GIS Files	1415218-20231023.pdf
Site Plan	Lasqueti Landing Drawings	BYL-CCN-PB11-LQT-P20002-001...
Site Plan	Qualicum Landing - Existing Drawings	BYL-CCN-PB1-QUB-P20002-0040...

PRIVACY DECLARATION

☑ Check here to indicate that you have read and agree to the privacy declaration stated above.

IMPORTANT NOTICES

- Once you click 'Next' the application will be locked down and you will NOT be able to edit it any more.

DECLARATION

☑ I declare that the information contained on this form is complete and accurate.

APPLICATION AND ASSOCIATED FEES

Item	Amount	Taxes	Total	Outstanding Balance
Crown Land Tenure Application Fee	$1,000.00	GST @ 5%: $50.00	$1,050.00	$0.00

OFFICE

Office to submit application to: Nanaimo

PROJECT INFORMATION

Is this application for an activity or project which requires more than one natural resource authorization from the Province of BC? No

OFFICE USE ONLY		
Office Nanaimo	**File Number** 1415492	**Project Number** 768600
	Disposition ID	**Client Number**

Management Plan

Please describe the details of your project to the extent known. Consult the guidance document for further information on regulatory requirements, rational for why the information is required, and how to find required information.

The scope and the timing for response will be provided. If information is requested and not received, it may result in the disallowance of the application.

Information on these topics may be required as part of the application processing and if further detail is necessary that is not part of the application and management plan received, you will be contacted and requested to provide additional information. In some circumstances, the use of a qualified professional to complete the plan may be required.

1.0 Background

1.1 Project Overview

Describe project for which authorization is requested, including construction and/or phased development details:

The Connected Coast project, once completed, will provide up to 139 rural and remote communities including 48 Indigenous communities representing 44 First Nations. This encompasses the BC coast from north of Prince Rupert, to Haida Gwaii, south to Vancouver and around Vancouver Island. The fully complete project will include 3,400 km of subsea fibre-optic cable (placed on the seabed), between Prince Rupert (the existing CityWest infrastructure) to Vancouver, where it will link to existing infrastructure, then around Vancouver Island. The Connected Coast program is anticipated to take approximately three-years.

The project will be constructed in 4 phases which are generally defined as:
Phase 1: Vancouver to Prince Rupert primary route with Discovery Islands spurs and some other spurs
Phase 2: All connections between Port Hardy and Gold River plus all remaining spurs on Phase1
Phase 3a: All connections between Gold River and Nanaimo going South
Phase 3b: All connections on the Sunshine Coast plus connections to Texada Island and Lasqueti Island.

Construction phases may shift based on when permits are received.

Permit applications will be submitted in blocks which represent a subset of a construction phase.
This application is for permit Block 12 and represents the following sites and segments:

6000,1,COM-PWR,Qualicum Beach,Lasqueti Site 1: Quallicum Beach
Site 2: Lasqueti

1.2 Investigative Work

If any preliminary investigative work has been carried out, with or without an investigative authorization, provide details on work completed, incomplete or on-going from previous term. Please provide comments on any archaeological work, new technology or any First Nations agreements undertaken.

Activity	Brief Description of Activity	Status (e.g. Complete, incomplete, ongoing)	Comments / Milestones

1.4 First Nations Consultation

Describe any contact you may have had, including the name of the First Nation(s) and representatives contacted including a description of any discussion of potential adverse effects from the proposed activity and any discussed mitigation measures.

2.0 Location

2.1 Description

Provide a general description of the location of the project. Include activities such as traffic patterns and volume; parking; drilling and sampling etc.

The undersea fiber optic cable will be laid onto the sea floor using a cable installation vessel.
As the cable comes to shore it will transition into a rugged conduit system which will be installed through the intertidal zone as well as the beach and upland area. In the upland area a telecommunications vault (flush with grade) will be placed as well as a private power pole and an equipment cabinet. The crown land boundary is generally at the beach therefore the on shore components are within a MOTI, Municipal or other jurisdiction. The conduit system will be buried in the beach and upland area using a small excavator.

Segment specific details can be found on the overall route detailed drawing package.

6000,1,COM-PWR,Qualicum Beach,Lasqueti

Site specific details can be found in the attached detailed drawing package.

Site 1: Quallicum Beach
Site 2: Lasqueti

2.2 Location Justification

Provide your reasons/justification of the need for this type of project at this location. For example, is the activity close to a main highway for truck access purposes; or adjacent to other examples of this use - ie. is the proposed marina close to an existing marina

The landing sites have been selected based on the following criteria:

There is a need at this location or near this location for broadband telecommunications services.
There is a reasonable method available at the site to extend the network to the homes and businesses in the area (example: aerial infrastructure)
The landing site is such that the installations will have a very low impact to the area.
There is a power line connection available at the location.
The landing site is governed by a public entity such as MOTI or a Municipality or similar that will grant a right of way for the installation.

2.3 Seasonal Expectations of Use

When will the Project require use of the land? Include information on key works during construction phases as well as operations phase and indicate seasons or full year activities. Please reference reduced risk fish windows as required by DFO:

Project Phase (Construction / Operations)	Brief Description of Activity / Works	Season

Project Phase (Construction / Operations)	Brief Description of Activity / Works	Season
Construction	Excavation for and installation of telecommunications vault, equipment cabinet and private power pole in the upland area. Excavation of trench and installation of protected cable in intertidal zone. Placement of cable on seabed surface.	Project funding requires a commitment to installation within a certain time frame. The schedule of installation is weather and regulatory permitting dependent and may be adjusted as the program progresses. The Project is continually pursuing regulatory and stakeholder authorizations and will target the earliest possible installation dates available. Landing construction will be completed over one to two days per site. Landing construction may occur outside DFO's recommended least risk window for some sites within the respective area. Construction impacts are expected to be minimal and there will be a Qualified Environment Professional (QEP) or delegate, and Environmental Monitor (EM) on site at all times during construction. Peak herring and squid spawn periods will be avoided. However, if unforeseen Project delays occur resulting in construction occurring within these time periods, measures will be in place to observe for spawning activity. If spawning is observed the within the Project Study Area, works will be stopped and will not proceed until embryos have hatched.
Operations	The operations phase will be minimal. The only required activities during the operational phase will be routine inspections of the below grade terrestrial vault and above grade terrestrial cabinet, and repairs of damaged cable on an as needed basis.	As needed basis.

3.0 Infrastructure and Improvements

3.1 Facilities and Infrastructure

Detail any new and existing facilities, infrastructure or processes proposed and any ancillary uses. Provide details of planned construction methods and materials, and construction scheduling.

Facility/Infrastructure/Process	Construction Methods/Materials	Construction Schedule
The landing sites, a 24" wide x 36" long x 36" road rated telecommunications Bulk 7 vault will be installed within 125 meters of the shore. A 1.25" HDPE conduit will be trenched in at a 2ft deep using a chain trencher and/or a small excavator. The trench will extend from the vault to the inlet shore and also beyond (into the inlet) for approximately 20 meters. In the wave crash area, additional protection will be applied to the HDPE conduit via a 42mm (ID) articulating ductile iron split pipe. The fibre optic cable will travel through the conduit system then out onto the inlet floor, towards deep water.	The vault will be 24" wide x 36" long x 36" deep. The body is constructed of HDPE and the lid is composite material designed for forces greater than a 20000 lbs. The conduit is heavy wall HDPE 1.25" The additional protection in the wave crash area is created by articulating ductile iron split pipes which snap together over the top of the HDPE conduit.	2 to 3 days of work are required per landing site. Please refer to above 2.3
The underwater cable will be installed by unreeling the cable off of the back of a cable laying vessel. The cable vessel will drive the designed route. A GPS log will be taken in the event of any deviations in the course (for as-built purposes).	The cable is a custom designed marine grade fiber optic cable (14mm wide x 7mm high).	The rate of which cable is laid is at 3-4 km/hr. Total installation time depends on the length of cable section to be laid. Please refer to above 2.3.

3.2 Access

Identify existing and proposed roads used for access and their use by season. Include any proposed connections that require either a Ministry of Transportation and Infrastructure permit for connection or use of a Forest Service Road and what type of FS road and types of vehicles expected. Include information on any road use agreements and include the volume of traffic during construction/operation and phase or season that the traffic is expected.

Roadway/Proposed Connection	Existing/Proposed	Existing Road Classification	Road Permittee Information and Road Use Agreements	Traffic Volume		Mitigation of Traffic Effects
				Construction Phase	Operations Phase	
Landing Type : MOTI The landing will be located on a Ministry of Transportation and				A small construction vehicle pulling trailer arriving at each cable landing site in the morning and leaving in the evening (2 to 3 days	Negligible	Landing sites are not on highway roadways therefore will be little to no impact to traffic during construction or

Roadway/Proposed Connection	Existing/Proposed	Existing Road Classification	Road Permittee Information and Road Use Agreements	Traffic Volume		Mitigation of Traffic Effects
				Construction Phase	Operations Phase	
Infrastructure right of way				to complete each landing site)		operational phases.
						.

3.3 Utility Requirements and Sources

Describe utility requirements and sources, include agreements in place or underway allowing access to utilities. Utilities include power generation, electrical or gas transmission or distribution lines, telecommunications.

The underwater cable network will have no impact to other utilities in the area.
Before any excavations are carried out BC one call tickets will be submitted to identify existing utilities.
The installation crew will take steps to identify all utilities in or near the construction area.
The underwater cable network will be registered with BC One call and with the Regional District as well as local municipalities.
The proposed network will connect to a BC Hydro aerial power pole at almost every location.
Also the fiber optic network will be extended in the future to homes, businesses and other telecommunication providers.

3.4 Water Supply

Identify water requirements for construction and operation phases (e.g. surface water and/or groundwater), including sources, location, volume and a general description of infrastructure planned to meet water supply requirements, include any agreements outside of Water Act Authorizations, such as Municipal water supply.

Project Phase (Construction/ Operation)	Water Requirement (e.g. Surface water or ground water, etc)	Source/location	Volume	Infrastructure Description	Agreements

Project Phase (Construction/ Operation)	Water Requirement (e.g. Surface water or ground water, etc)	Source/location	Volume	Infrastructure Description	Agreements
no water supply required					

3.5 Waste Collection Treatment and Disposal

Identify any waste disposal (note septic system required), sewage, sanitation facilities and refuse disposal proposed. Include agreements in place or underway such as Health Regional Board Sewage Disposal Permits etc.

Project Phase (Construction/ Operation)	Is there a water requirement (e.g. Surface water or ground water, etc)	Discharge distance to closest body of water (well, lake, etc.)	Volume of daily discharge	Infrastructure Description	Existing Agreements
not applicable to our activity					

4.0 Environmental

Describe any significant impacts and proposed mitigation for the following environmental classes:

4.1 Land Impacts

4.1.1 Vegetation Removal

Is any timber removal required?

◯ Yes ◉ No

Are any areas of vegetation to be cleared, outside of timber removal?

◉ Yes ◯ No

Removal Type	Impacts	Proposed Mitigation
Clearing of grasses and shrubbery will be required at the Lasqueti Site 20 m2) landing site.	Potential to destroy wildlife and wildlife habitat (see Section 4.4.1). Potential to unintentionally disturb and spread invasive species.	The area for clearing will be delineated and appropriate buffers placed around any sensitive environmental features. - Vegetation clearing will be minimized to construction specified dimensions. - Cleared vegetation, expected to consist of primarily shrubbery, foliage, and woody debris, will be retained and dispersed on site to serve as wildlife habitat and minimize soil erosion and siltation. Removal of mature trees will be avoided. - Where trenching is conducted in close proximity to trees: o Cable route will be adjusted to maximize distance from tree bases. If possible, trenching will be conducted outside of tree drip lines. At a minimum, a 1 m excavation exclusion zone will be maintained around the base of all trees. o Trenching will be conducted by hand in vegetated areas. An air spade will be used to expose the root system and allow strategic pruning of roots. o The trench will be limited to 30 cm deep and 30 cm wide in the vicinity of tree roots systems. - Backfilled or disturbed areas in the upland zone will be seeded with a suitable reclamation seed mix approved by the property owner and covered with straw (or equivalent erosion control matting). - An Invasive Species Management Plan has been prepared.

Removal Type	Impacts	Proposed Mitigation

4.1.2 Soil Disturbance

Will there be any areas of soil disturbance, including clearing, grubbing, excavation and levelling?

(•) Yes ( ) No

Disturbance Type	Impacts	Proposed Mitigations
Trenching through upland and intertidal zone up 1 m wide and 60 cm deep.	Potential erosion and sediment control (ESC) issues.	See ESC measures in Section 4.4.1.
Upland excavations for subsurface telecommunications vault, private power pole and generator/propane tank setup (if applicable).	Potential ESC issues.	See ESC measures in Section 4.4.1.

Is the area to be excavated a Brownfield site or has the potential to be contaminated?

( ) Yes (•) No

Is there potential for disturbance of archaeological, paleontological fossils or historical artifacts?

(•) Yes ( ) No

Additional research and plans may be required. Heritage Conservation Act

4.1.3 Riparian Encroachment

Will any works be completed within or adjacent to the riparian zone of any water body? If your project is within 30 meters of a watercourse and you intend to: disturb soil, remove plants, construct, install works for flood protection, develop drainage systems or service sewer or water systems the Riparian Areas Regulation may affect your development.

(•) Yes ( ) No

Identify all works that may affect the Riparian zone, the impacts, and proposed mitigations:

Work Type	Impacts	Proposed Mitigations
A trench will be created from the low water mark of the beach area up to the terrestrial zone	minimal	See Section 4.4 for proposed mitigation measures in this zone.

4.1.4 Pesticides and Herbicides

Will there be any use of pesticides or herbicides during construction, operations and/or maintenance?

○ Yes ◉ No

4.1.5 Visual Impacts

Will there be any adverse effects of the projects, and any potential adverse effects on sight lines to the project area from surrounding areas likely to be used for scenic viewing by residents or other users?

○ Yes ◉ No

4.1.6 Archaeological Sites

Are there any known or high potential (Arch Procedure) archaeological sites within the project area?

○ Yes ○ No

Identify the sites, any potential impact on them, and any mitigations:

Archaeological Site	Impacts	Proposed Mitigations / Management Plans

Have you conducted an AIA or engaged an archaeologist to assist with your investigations?

○ Yes ○ No

Please include information or reports generated:

4.1.7 Construction Methods and Materials

Identify the types of construction materials, the methods used, their impacts, and any mitigations:

Construction Material/Method	Impacts	Mitigations
The fiber optic cable itself is armoured with galvanized steel rods packaged in High Density Polyethylene (HDPE) 1.35 centimetre (cm) wide. With the exception of the portion of cable installed offshore, the cable will be encased within a 3.18 cm diameter HDPE conduit. The portion of cable installed in the intertidal zone will be additionally armoured with 44 or 81 mm diameter ductile iron split pipe casing to provide long term protection from anthropogenic and ecological influences in the intertidal zone.	None - The cable and protective casing is composed of inert material that will not react with the environment. The cable does not emit anything that would be harmful to the environment.	N/A
Fiber optic cables will tie into subsurface telecommunication vaults. The excavation required to accommodate the installation of the subsurface telecommunication vaults is expected to be approximately 1.5 m x 1.5 m x 1.5 m in dimension. Select landing sites will also require the installation of a wooden private power pole requiring an excavation approximately 0.4 m wide x 1.5 m long x 1.7 m deep in dimension or a propane tank/generator requiring a an excavation 1 m x 1 m x 0.1 m in dimension.	See potential impacts and proposed mitigation measures described below in Sections 4.2.1 to 4.4.1.	N/A
From the terrestrial subsurface vault to the low intertidal zone, the conduit with split pipe armouring will be buried within a trench approximately 60 cm deep and up to 1 m wide. Trenching will be completed with a mini excavator unless site access is limited in which case the trench will be dug with hand tools.	See potential impacts and proposed mitigation measures described below in Sections 4.2.1 to 4.4.1.	N/A
In the subtidal zone, the cable with protective split pipe will either be pulled out across the seabed or floated out during high tide, facilitated by a skiff, and gently lowered onto the seabed surface.	See potential impacts and proposed mitigation measures described below in Sections 4.2.1 to 4.4.1.	N/A

Construction Material/Method	Impacts	Mitigations
In the open ocean, cable will be installed via a cable lay vessel. The cable will be laid on the ocean floor (cable burial via jetting or ploughing is not proposed).	See potential impacts and proposed mitigation measures described below in Sections 4.2.1 to 4.4.1.	N/A
A record of line placement into the watercolumn of +/- 1m accuracy will be created as the line is placed. If it is determined that the line location as placed, at any location along the authority, differs from the centerline of the authority for Crown land use by more than the measurements specified below an application for amendment to the Crown land use authority will be made within 45 days of line laying completion. (The table below recognizes the greater risk of Crown land use conflict occurring as water depths decrease and the line approaches landfall, and provides information on where the line can be expected to be encountered relative to authorized location as waterdepths increase.) Water depth as measured below the mean/ low water mark (m) Variance allowed from centerline of authority <0 /0.3m 0-5 /0.4m 5-10/ 0.8m 10-20/ 1.0m 20-30 /1.5m 30-50 /2.5m 50-100/ 5m 100+/ 20m		

4.2 Atmospheric Impacts

4.2.1 Sound, Odor, Gas or Fuel Emissions

Will the project construction or operation cause any of the following to disturb wildlife or nearby residents:

Sound? (•) Yes ( ) No

Explain the current conditions, source, type and range of emission. Provide a description of atmospheric effects from proposed construction, operation, and decommissioning phases. Also include proposed mitigation measures to manage or mitigate adverse effects.

Emission Source	Current Conditions	Project Impacts	Proposed Mitigations / Management
Equipment (mini excavator and/or skid steer)	Natural ambient noise from wildlife, ocean, and adjacent residential community.	Although no exceptionally loud noises are expected to be generated by construction activities, slightly increased ambient noise levels from construction crew and equipment may be temporarily disruptive to local residents and terrestrial wildlife.	• Construction at each landing site will be limited to the day • Equipment will be turned off when not in use to avoid unnecessary idling • Equipment will be maintained and in sound working order to minimize noise pollution. All equipment will have functioning exhaust and muffler systems. All bolts and fasteners will be tight to avoid rattling. • Any construction activities that cause elevated noise will be conducted within timelines stipulated by applicable municipal noise bylaws.
Vessel (hydroacoustic noise)	Existing commercial and recreational vessel traffic.	See Section 4.4.2 for potential impacts to marine mammals.	See Section 4.4.2 for proposed mitigation measures to protect marine mammals.

Add Field

Odor? ○ Yes ◉ No

Gas? ○ Yes ◉ No

Fuel Emissions? ◉ Yes ○ No

Explain the current conditions, source, type and range of emission. Provide a description of atmospheric effects from proposed construction, operation, and decommissioning phases. Also include proposed mitigation measures to manage or mitigate adverse effects.

Emission Source	Current Conditions	Project Impacts	Proposed Mitigations / Management
Equipment (mini excavator, skid steer, light duty trucks, cable laying vessel, support vessel).	No air quality issues noted.	Potential minor degradation in air quality due to equipment emissions. Impact is expected to be negligible due to the open area and relatively minor volume of emissions produced.	- All equipment will be inspected by the EM prior to entering site and must be in good working order - Equipment will be turned off when not in use to avoid unnecessary idling

Add Field

4.3 Aquatic Lands

4.3.1 Drainage Effects

Will the project result in changes to land drainage?

○ Yes ◉ No

4.3.2 Public Access

Will the project result in changes to public access?

○ Yes ◉ No

4.3.3 Flood Potential

Will the project result in a potential for flooding?

○ Yes ◉ No

4.4 Fish and Wildlife Habitat

4.4.1 Disturbance to Fish/Wildlife and Fish/Wildlife Habitat

Will the project result in adverse effects to wildlife or wildlife habitat?
(BC Wildlife Act)

◉ Yes ○ No

Provide a description of any potential adverse effects to wildlife and wildlife habitat from proposed construction and operation (including seasonal considerations, potential adverse effects from changes to access by hunters and fishers, along with proposed measures to mitigate adverse effects).

Project Phase		Potential Impacts	Proposed Mitigations / Management Plan

Project Phase		Potential Impacts	Proposed Mitigations / Management Plan
Construction - cable installation in upland area and intertidal zone		Potential impact to terrestrial wildlife. Equipment operation and the presence of crew have the potential to disturb wildlife and wildlife habitat through elevated noise generation or physical contact.	• Crews will not approach, harass, feed, harm, capture, or kill any wildlife. A stop work will be implemented if wildlife is observed onsite. Work will not resume until wildlife has vacated the vicinity of the site on their own accord. • A stop work will be implemented if a wildlife habitat feature (ie. nest, den, burrow) is encountered. Work will not proceed until a management plan in compliance with the BC Wildlife Act and Migratory Birds Convention Act is prepared. • All wildlife observations will be reported to the EM. • In the event that wildlife appears to be injured, abandoned, or in distress, a BC conservation officer will be immediately notified at the BC Report All Poachers and Polluters Hotline (RAPP) (1-877-952-7277). The BC RAPP will advise on the appropriate management strategy. • All food and domestic waste will be stored securely in wildlife proof containers or within vehicles, and removed from site at the end of each day. • Post-construction, each landing site will be restored to pre-construction conditions as much as possible. This ensures no hazardous obstacles are present which could harm wildlife (ie. open excavations, standing pools of water.)

Construction - all phases		Potential impact to bird and bird habitat.	• Compliance with the provincial Wildlife Act and federal Migratory Birds Convention Act will be achieved by conducting pre-disturbance nest surveys as required. This will involve conducting nest sweeps for nests of species protected year-round (e.g., Bald Eagle and Great Blue Heron) as well as nest sweeps to avoid impacting any active nests of migratory birds during the breeding season. • If a nest is identified during the survey or construction activities, a stop work will be implemented. Work will not proceed until a nest management plan has been developed. • Proactively, bird nesting will be prevented in equipment during nesting season (late March to mid August) by covering pipe ends and keeping equipment mobile on a daily basis. • Vessels will travel at less than 4 km/hr (2.2 knots) during use to minimize vessel wake and reduce the risk of disturbing shoreline bird habitat.

Will the project (construction or operations phase) occur in and around streams, lakes, estuarine or marine environments?

(•) Yes ( ) No

Describe the fish habitat on or near the project site, include potential impacts of the Project (e.g. stream crossings, water diversions, etc), including seasonal considerations, and plans to manage/mitigate effects.

Project Phase	Impacts	Proposed Mitigations / Management

Project Phase	Impacts	Proposed Mitigations / Management
Construction - cable placement on ocean floor	Potential impact to fish habitat (eelgrass). Eelgrass in the subtidal zone and shallow ocean, may be impacted when the cable is laid on the seabed floor, however the magnitude of impact is anticipated to be minimal due to the area of disturbance being limited to the width of the cable (1.35 cm) or the split pipe casing (8 cm). Placing the cable on the seabed (no burial or trenching) is a non- intrusive installation method that limits sediment disturbance.	Prior to construction commencing, an ROV or dive team will be used to survey the proposed cable alignment in the subtidal zone, from 0 m to -10 m CD. The cable route will be adjusted to avoid eelgrass beds if possible. If unavoidable, the route with the least dense or shortest distance of eelgrass will be selected. Installation methods in the subtidal zone will be determined based on the presence or absence of native eelgrass identified during the survey. If eelgrass is present in the vicinity, the split pipe will be floated during high tide and gently lowered onto the subtidal seabed in order to minimize seabed disturbance. The split pipe will not be dragged through substrate. Live monitoring will be used to guide the installation and ensure accurate spatial management. An ROV or dive team will be used to conduct a post construction survey of the subtidal zone and installed split pipe. Cable installation in the subtidal zone will only be conducted during suitable high tides to ensure the skiff used for installation does not scour substrate or sensitive marine vegetation. If technically feasible, smaller diameter split pipe (44 mm instead of 81 mm) will be used in the subtidal zones of landing sites where eelgrass is identified to minimize the Project footprint and environmental impact. Vessels laying cable in the open ocean will travel at less than 4 km/hr (2.2 knots) to ensure cable placement is precise.

Construction - trench excavation in intertidal zone	Potential to impact sensitive fish habitat (eelgrass). Trench excavation and associated substrate disturbance in the mid to low intertidal zones poses the risk of damaging sensitive marine habitat (eelgrass) through physical contact, displacement and burial. Personnel assisting with equipment operations in the intertidal zone risk destroying eelgrass by trampling on it.	Work will be scheduled during suitable low tides. The EM will conduct a sweep of the low intertidal zone work area prior to any construction commencement to identify any native eelgrass present. If encountered, the trench route will be adjusted to avoid if possible (ie. around patchy distribution). If unavoidable, the cable route will be shifted to the route with the least impact to eelgrass. Eelgrass within the trench footprint will be salvaged and transplanted back into the disturbed trench footprint post backfill. Plywood will be laid on either side of the trench to protect the eelgrass from equipment tracks and spoil piles. Personnel accessing the intertidal zone by foot will be limited. Care will be taken by these individuals to avoid trampling any marine flora and fauna.
Construction - trench excavation in intertidal zone	Potential to impact fish and fish habitat (eelgrass). Substrate disturbance in the intertidal zone caused by excavation activities poses the risk of sediment suspension during tidal inundation and increased turbidity in the marine environment. Elevated turbidity in the marine environment can be detrimental to fish and marine vegetation.	See below sections for the proposed erosion and sediment control (ESC) measures and the Water Quality Monitoring Program.

Construction - all phases	Potential to impact fish and fish habitat. Operating equipment in the marine environment poses the risk of an accidental release of a deleterious substance such as hydraulic fluid or diesel fuel which could have harmful effects on marine flora and fauna.	Spill Prevention Plan • All equipment will be inspected by the EM prior to entering site and must be in good working order and free of leaks, excess grease, oil, and soil. • Equipment inspections will be completed and documented daily by operators prior to use. • Equipment will have secondary containment in place (ie. drip trays) when not being operated. • Fueling and maintenance of equipment will be conducted greater than 30 m from the high water mark and any watercourses • Fueling will be performed by two qualified personnel on a sealed surface with the use of drip trays. All fueling hoses will have an automatic shut-off valve. • All equipment in the intertidal zone will be operated in the dry, above the water mark and will be clear of the intertidal zone prior to tidal inundation. • Equipment operations in the intertidal zone will be limited as much as possible to reduce the spill potential. • Effort will be made to use biodegradable hydraulic fluid in equipment dedicated to working on, near or above water when logistics allow. • Parking and laydown areas will be established greater than 30 metres from the high water mark if possible. Spill Response Plan • An emergency spill response plan in compliance with the BC Spill Reporting Regulation (B.C. Reg. 221/2017) has been prepared and will be readily available on site at all times. • All crew members will be trained in spill response procedures and will be familiar with the location and contents of spill kits. • Each piece of equipment, including skiffs, will be equipped with a small spill response kit. • Each active work front (ie. landing site, cable laying vessel) will have a large spill response kit housed in a sealed container readily available. • In addition to spill kits, five-gallon buckets, shovels, tarps and poly sheeting will be available on site for any potential emergency cleanup of

		contaminated soil required in the intertidal zone. • The cable laying vessel is equipped with an oil containment boom and is registered with Western Canada Marine Response Corporation. In the event a spill is uncontainable by resources on site, the WCMR will be notified to respond.
Construction - trench excavation in intertidal zone	Potential impact to benthic organisms in the intertidal zone. Trench excavation in the intertidal zone poses the risk of harming benthic organisms by direct impacts such as displacement, crushing or burial. Mobile benthos (ie. crabs) should be able to avoid physical interaction. Bivalves and tubeworms may be impacted. Post construction, natural recolonization of the disturbed areas is expected and no permanent impacts are expected from the Project.	• The EM will conduct a sweep of the intertidal zone work corridor prior to any substrate disturbance to identify any sessile invertebrates (clams, oysters, mussels) susceptible to harm from construction. These sessile invertebrates will be relocated. An invertebrates salvage permit has been obtained from the DFO to conduct such work. • Salvaged sessile invertebrates will be relocated to disturbed substrate at a similar depth and tidal height within 20 m of the harvested location. Care will be taken to ensure that all bivalves are repositioned in an orientation such as to minimize time for resumption of their natural state (ie. bivalves will be oriented such that their posterior side is closer to the surface). • Excavated stockpiles will be assessed by the EM for the presence of bivalves and if located will be salvaged.
Construction - cable placement on ocean floor	Potential impact to spawning fish and spawning habitat. The majority of the BC coastline has been identified as juvenile salmonid habitat. The risk of direct interaction with fish species during in water works is anticipated to be low due to the non-intrusive nature of the work	Project funding requires a commitment to installation before the winter of 2024. The schedule of installation is weather and regulatory permitting dependent and may be adjusted as the program progresses. The Project is continually pursuing regulatory and stakeholder authorizations and will target the earliest possible installation dates available. Landing construction will be completed over one to two days per site. Landing construction may occur outside DFO's recommended least risk window for some sites within the respective area. Construction impacts are expected to be minimal and there will be a Qualified Environment Professional (QEP) or delegate, and Environmental Monitor (EM) on site at all times during construction. Peak herring and squid spawn periods will be avoided. However, if unforeseen Project delays occur resulting in

	(placement of cable on seabed and operating low speed vessels) and the mobility of the species.	construction occurring within these time periods, measures will be in place to observe for spawning activity. If spawning is observed the within the Project Study Area, works will be stopped and will not proceed until embryos have hatched. Where suitable forage fish (eg. Pacific herring, Surf Smelt) spawning habitat is present, a qualified environmental professional will conduct a forage fish egg survey in accordance with an accepted survey method prior to trenching within the intertidal zone. Based on avoidance of herring spawning season, no indications of spawning herring are anticipated. If forage fish spawning is detected, work will be suspended until no incubating embryos are present.
Construction - cable placement on ocean floor	Potential impact to marine mammals. The risk of physical interaction with marine mammals during in water works is anticipated to be low due to the low speed of operating vessels and the mobility of the species.	During all in water works, a 100 m exclusion zone will be established around the active work area for whales, dolphins and porpoises, unless the animal is resting or with a calf in which a 200 m exclusion zone applies. With the exception of killers whales where a 400 m exclusion zone will apply. A MMO will be present to monitor for any marine mammals entering exclusion zones during in water works. If a marine mammal is observed entering its respective exclusion zone, a stop work will be implemented. Construction activities will only resume once the individual(s) has been confirmed to have left the exclusion zone or has not been sighted for a duration of 30 minutes. The aforementioned marine mammal exclusion zones comply with the approach distance requirements identified in the Marine Mammal Regulations. The MMO will also monitor for pinnipeds including harbour seals which may be encountered during Project work. It will be left to the discretion of the MMO if a work stoppage should be implemented upon observation of a pinniped. If the MMO deems Project work may cause direct harm to the individual or if the individual appears under distress a work stoppage will be implemented. Work may continue if pinnipeds enter the exclusion zone but are not considered to be at risk of harm from

		Project activities.
Construction - cable placement on ocean floor	Potential impact to marine mammals. Vessels may cause hydroacoustic noise with the potential to impact select marine mammal species such as Killer Whales by interfering with echolocation vital for foraging, communication, and navigation. The most substantial hydroacoustic disturbance anticipated during the installation of the fibre optic cable will be the noise generated by the vessel itself. Vessel noise is typically higher in frequency and lower in intensity than acoustics known to cause serious harm to marine mammals such as seismic airgun blasts and impact pile driving. The DFO's recommended mitigation measure for minimizing adverse hydroacoustic impact from vessels is to reduce the vessel speed.	Vessels will travel at less than 4 km/hr (2.2 knots) during construction operations to minimize engine noise and vessel wake. At this speed, personnel will have ample opportunity to observe and react to potential hazards on route.

Is the project (construction or operations phase) likely to increase erosion or sedimentation?

(•) Yes ( ) No

Describe the fish habitat on or near the project site, include potential impacts of the Project (e.g. stream crossings, water diversions, etc), including seasonal considerations, and plans to manage/mitigate effects.

Project Phase	Impacts	Proposed Mitigations / Management

Project Phase	Impacts	Proposed Mitigations / Management
Construction - trench excavation in upland area and intertidal zone	Potential for erosion and release of sediment laden water from disturbed areas in upland and intertidal zone to cause increased turbidity in marine environment.	An ESC Plan has been developed. ESC mitigation measures include: -- All work in the intertidal zone will be completed in the dry, above the water mark. Prior to initiating excavation in the intertidal zone, crews will review tidal forecasts and plan accordingly an appropriate length of trench to excavate such that the entire trench length can be backfilled prior to tidal inundation. If for any reason cable installation is delayed, trenches will still be backfilled and contoured prior to tidal inundation to prevent sediment stranding. - Swamp mats or equivalent will be used as necessary to reduce substrate compaction by machinery. - Overland surface water flowing towards the work area will be diverted and overland surface water leaving the work area will be collected/filtered using methods such as berms, ditches, sandbags and silt fencing. - ESC materials including polyethylene plastic, silt fencing, tarps, sand bags and straw mulch will be available onsite for use as prescribed by the EM - Any coarse material originally on the surface will be returned to the surface (ie. cobbles, driftwood) to retain underlying fines - Disturbed areas in the upland that were originally vegetated will be seeded with a suitable reclamation seed mix - Construction will be deferred during heavy precipitation A Water Quality Monitoring Program has been developed. Components of the program include: - Visual monitoring for turbidity plumes in the marine environment. - Observation of a turbidity plume triggering in situ water quality monitoring for turbidity within 10 m of the plume on an hourly basis until measurements meet BC Approved Water Quality Guidelines. - Background in situ turbidity measurements will be collected for comparison purposes. - Construction activity directly causing the increased turbidity will be halted immediately.

		- Water quality monitoring to be conducted by qualified EM.
Construction - cable with protective split pipe placed on seabed in low intertidal zone and subtidal zone	Potential for resuspension of seabed floor sediment in low intertidal zone and subtidal zone. Split pipe (44 or 81 mm diameter) is anticipated to extend to 4 m below Chart Datum and then just cable (1.35 cm wide) beyond that.	An ESC Plan has been developed. ESC mitigation measures include: • Cable with protective split pipe in the low intertidal and subtidal zones will be placed on the seabed surface (no trenching or burial required). • No personnel will be accessing the subtidal zone by foot. • Installation in the subtidal will only be complete during suitable high tides to ensure the skiff used for installation does not ground or prop scour.
Construction - placement of cable on seabed floor	Potential for resuspension of seabed floor sediment in open ocean. Between landing sites, cable will be laid on the seabed surface via a cable lay vessel. Based on the slight diameter of the cable (1.35 cm), slow speed of installation (less than 4 km/hour) and non-intrusive method of installation (no trenching or burial) sedimentation of the seabed floor is expected to be minimal.	• Cable will be laid at less than 4 km/hr.

Will the project (construction or operations phase) require water diversion?

○ Yes ◉ No

Will the project threaten or endanger species at risk in the area?

Species At Risk Act

◉ Yes ○ No

How and what mitigation is planned?

Project Phase	Impacts	Proposed Mitigations / Management

Project Phase	Impacts	Proposed Mitigations / Management
Construction - trench excavation in intertidal zone	Potential impact to SARA listed Olympia Oysters (special concern) and Northern Abalone (endangered) during trench excavation in the intertidal zone causing direct impacts such as displacement, crushing or burial. Post construction, natural recolonization of the disturbed areas is expected and no permanent impacts are expected from the Project.	• A SARA permit for relocation of Northern Abalone will be obtained by the DFO prior to any construction commencing. This permit will outline measures to protect Northern Abalone at landing sites exhibiting suitable habitat identified by a QEP. • The EM will conduct a sweep of the intertidal zone work corridor prior to any substrate disturbance to identify any Olympia Oysters (and other sessile invertebrates) susceptible to harm from construction. These sessile invertebrates will be relocated. An invertebrates salvage permit has been obtained from the DFO to conduct such work. • Salvaged sessile invertebrates will be relocated to disturbed substrate at a similar depth and tidal height within 20 m of the harvested location. Care will be taken to ensure that all bivalves are repositioned in an orientation such as to minimize time for resumption of their natural state (ie. bivalves will be oriented such that their posterior side is closer to the surface). • Excavated stockpiles will be assessed by the EM for the presence of bivalves and if located will be salvaged.
Construction - cable lay in subtidal zone	Potential impact to Olympia Oysters (special concern) and Northern Abalone (endangered). Benthic organisms in the subtidal zone may be impacted when the cable is laid on the seabed floor, however the magnitude of impact is anticipated to be minimal due to the area of disturbance being limited to the width of the split pipe casing (10 cm) and cable (1.35 cm). It is anticipated that the split pipe will extend out approximately 2 m below 0.0 m Chart Datum elevation. Beyond that, cable (1.35 cm width) will be laid. Placing the cable on the seabed (no burial or trenching) is a non-intrusive installation method that limits sediment disturbance.	• A SARA permit for relocation of Northern Abalone will be obtained by the DFO prior to any construction commencing. This permit will outline measures to protect Northern Abalone at landing site exhibiting suitable habitat. Measures may include dive surveys to identify individuals within the construction footprint and relocation of individuals. Cable installation in the subtidal zone will only be conducted during suitable high tides to ensure the skiff used for installation does not scour substrate or sensitive ecosystems.

5.0 Socio-Community

5.1 Land Use

Describe the current community setting on or near the project area, including the location of non-aboriginal and aboriginal communities or known use areas.

The undersea network traverses the major water ways of the BC coastline.
The landing sites for the cable are typically near communities where there is a need for high bandwidth services.
The footprint of the cable and conduit installation will be negligible and will not have any impact to the use of the land or sea floor.
Fishing practices that drag the sea floor could be in conflict with the cable installation.

The equipment in the back-shore area is one telecom cabinet 48inches x 48inches x 60inches, one power pole at 14 inches in diameter and one vault at 36" x 48" flush with the ground. This equipment is typically placed in a suitable design location based on (power availability, foot traffic, vehicle traffic, accessibility, and land ownership).

Lasqueti - Beach Access

5.1.1 Land Management Plans and Regional Growth Strategies

Are there any land and resource management plans, coastal plans, provincial, regional growth strategies or local government plans with zoning, or management policies or use restrictions in place that could limit or preclude your proposed use of the land? *(Please refer to the Union of BC Municipalities (UBCM), and check the websites of the municipality, regional district or other organization with jurisdiction including your project area.)*

○ Yes ◉ No

5.2 Socio-Community Conditions

5.2.1 Adjacent Users or Communities

Is the project likely to restrict public access, or the ability, or the ability of adjacent land owners or tenure holder to access their property or tenures?

○ Yes ◉ No

5.2.2 Existing Services

Provide a description any increased demand on fire protection and other health facilities and emergency services arising from your Project, including proposed management or mitigation measures.

This project will not result in any increased demands of any public services.

END O F FORM

1415492 MAP

CityWest

Connected Coast

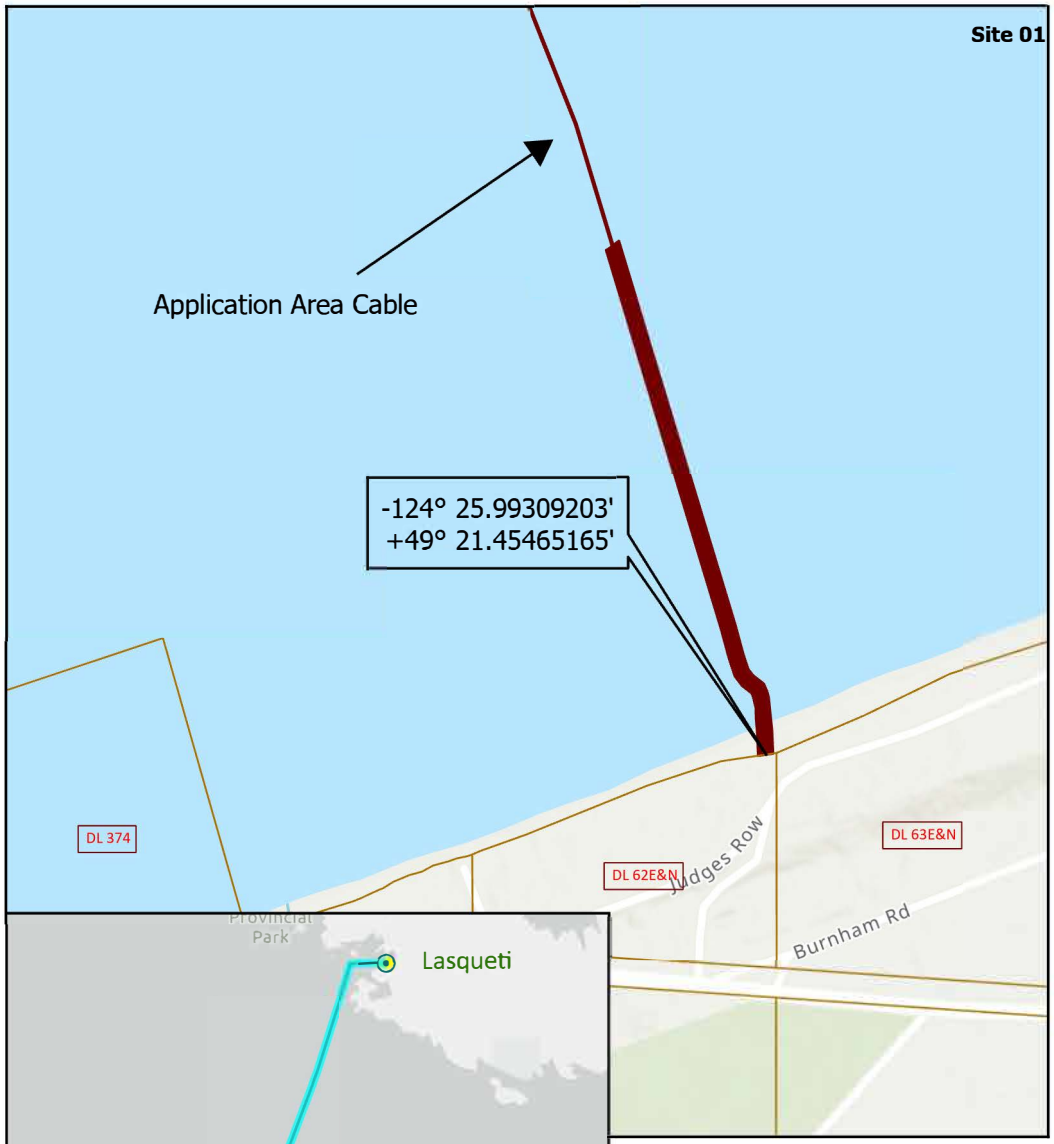
Strathcona Regional District

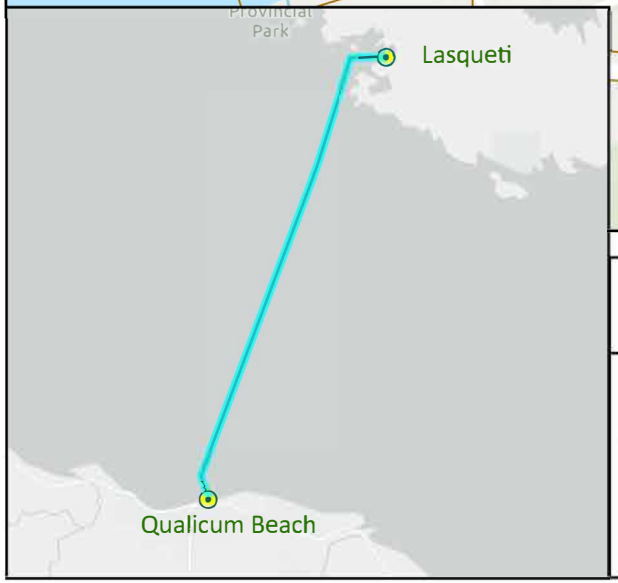
Date: 2023-10-20

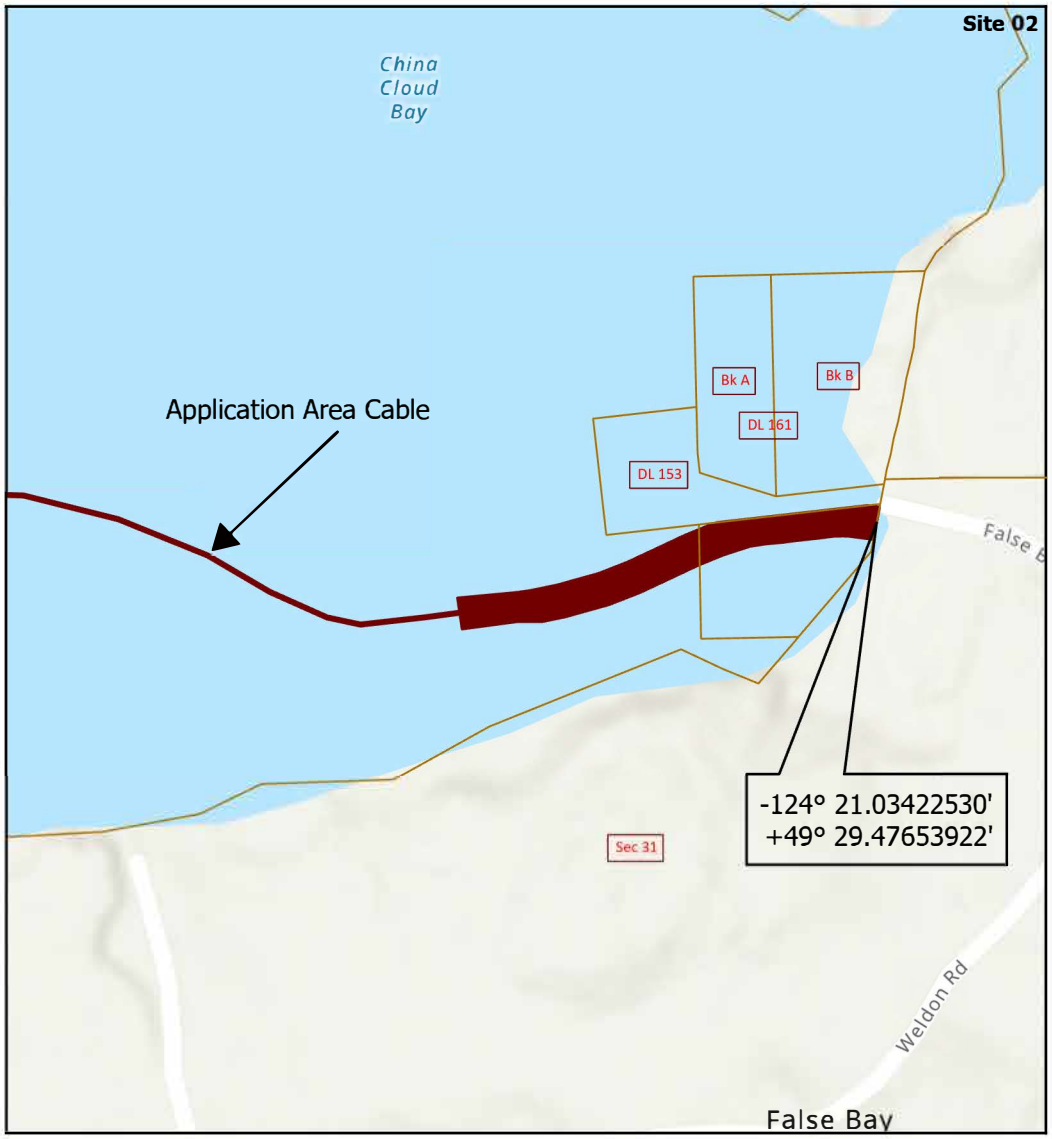
1415218 Connected Coast Landing Site

1415218 Connected Coast Fiber Cable

BAYLINK networks







1415492 - Section 6000-1

Date: 2023-10-20

Description:
Site 01: Qualicum Beach Landing
Site 09: Lasqueti Landing
Length: 16.99 Km long by 1m wide
Area: 2.13 Ha

Spatial Reference
Name: NAD 1983 BC Environment Albers

N

Legend

- Site Location
- Application Cable
- Surveyed Parcel