

July 5, 2024

FortisBC Energy Inc.
16705 Fraser Highway
Surrey, BC V4N 0E8

Attention: FortisBC Energy Inc.

RE: Amendment of Application Determination Number 100111735, BCER Legacy# 9001163

Permit holder: FortisBC Energy Inc.
Amendment Date of Issuance: July 5, 2024
Amendment Effective Date: July 5, 2024
Application Submission Date: June 26, 2024
Amendment Application Number: 100119158
Approved Disturbance Footprint: 94.559 ha

Amendment Details

Pipeline Project No.: 000025844 Segment No.: 001, 002	<p>To amend the permitted pipeline routing, amend approved and add new associated activities and changes in and about a stream, as applied for in amendment application 100119158.</p>
Associated Activity No.: 00242208 – 00242218, 00242220 – 00242226, 00242228 Type: Access	
Associated Activity No.: 00215947, 00215948, 00215952, 00215954, 00215956, 00215957, 00215959, 00215961, 00215962, 00215964, 00215966, 00215979, 00215983 – 00215987, 00215989, 00215997, 00215998, 00216001, 00216003, 00216005, 00216006, 00216024, 00216029, 00216035, 00216037, 00216039, 00216044, 00216046, 00216050, 00216054 – 00216056, 00216061, 00216063, 00216064, 00216066, 00216074 – 00216086, 00216088 00216101 – 00216104, 00216106 – 00216112, 00216114, 00216116, 00242131, 00242132, 00242134, 00242135, 00242138 – 00242192, 00242194 – 00242207, Type: Workspace	
Changes In and About a Stream: 0006978	

General Permissions, Authorizations and Conditions

Permissions

Energy Resource Activities Act

1. The BC Energy Regulator, under section 31(7) of the *Energy Resource Activities Act*, hereby grants an amendment to the permit issued for the above referenced Application Determination Number, any associated

authorizations subject to the original permit, any subsequent amendments and any additional or revised conditions as set out herein, as per the Amendment Details table above and, if required, as detailed in the Technical Specification Details and/or Activity Details table(s) below.

2. The permissions and authorizations granted under this amendment are limited to the area identified in the spatial data submitted to the BC Energy Regulator in the amendment application as identified and dated above; herein after referred to as the 'activity area'.
3. The Commission, pursuant to section 39 of the Land Act, hereby approves the occupation and use of any Crown land located within the activity area.
 - a. A Licence approved under section 39 of the Land Act for the Crown land portion of this application will follow. The permit holder is subject to the conditions contained in the Licence.
 - b. The approval to occupy and use Crown land under the Licence expires two years from the date of issuance, unless the BC Energy Regulator has received notice of construction start, or this permit is otherwise extended, suspended, cancelled, surrendered or declared spent.
 - c. The approval to occupy and use Crown land does not entitle the permit holder to exclusive possession of the activity area.
 - d. The total disturbance within the activity area must not exceed the total approved disturbance footprint as referenced above.
4. Notwithstanding the above permissions and authorizations, this permit does not include authorizations for the following Associated Activity(s) on private land:

00242219 - Access
00242227 - Access
00215942 - Workspace
00215943 - Workspace
00215944 - Workspace
00215946 - Workspace
00215982 - Workspace
00216018 - Workspace
00216067 - Workspace
00216068 - Workspace
00216069 - Workspace

00216070 - Workspace
00216089 - Workspace
00216094 - Workspace
00216095 - Workspace
00216098 - Workspace
00216099 - Workspace
00242133 - Workspace
00242136 - Workspace
00242137 - Workspace
00242193 - Workspace

Authorizations

Forest Act

5. The BC Energy Regulator, pursuant to section 47.4 of the *Forest Act*, hereby authorizes the removal of Crown timber from the activity area under the cutting permits associated with the Master Licence(s) as follows:

Master Licence to Cut No.: M02751
Cutting Permit No.: 003
Timber Mark No.: MTD949
Total New Cut: 1.01
Forest District: (DSQ) Sea to Sky Natural Resource District

Master Licence to Cut No.: M02754
Cutting Permit No.: 002
Timber Mark No.: MTD948
Total New Cut: 0.04
Forest District: (DCK) Chilliwack Natural Resource District

6. The term of the cutting permits is four years. The cutting permits are deemed spent upon submission of the post-construction plan or the cancellation or expiry of activities authorized under the permit.

Conditions

Notification

7. Within 60 days of the completion of construction activities under this permit, the permit holder must submit to the BC Energy Regulator a post-construction plan as a shapefile and PDF plan accurately identifying the location of the total area actually disturbed under this permit. The shapefile and plan must be submitted via eSubmission.
8. A notice of maintenance activities must be submitted, as per the relevant BC Energy Regulator process at the time of submission, at least two (2) working days prior to the commencement of any changes in or about a stream associated with maintenance activities.
9. At least ten (10) working days prior to the commencement of any changes in or about a stream associated with maintenance activities, the permit holder must provide a notice of works to any First Nation(s) who may have Aboriginal Interests identified, as per the BC First Nations Consultative Areas Database, within the area in which the works are to occur.
10. The Permit Holder must notify the First Nation(s) copied on this permit/authorization at least 5 (five) working days prior to project commencement.

General

11. The rights granted by this permit in relation to unoccupied Crown land are subject to all subsisting grants to or rights of any person made or acquired under the *Coal Act*, *Forest Act*, *Land Act*, *Mineral Tenure Act*, *Petroleum and Natural Gas Act*, *Range Act*, *Water Sustainability Act* or *Wildlife Act*, or any extension or renewal of the same.
12. The permit holder must not assign, sublicense or permit any person other than its employees, contractors or representatives, to use or occupy any Crown land within the activity area without the BC Energy Regulator's written consent.
13. The permit holder must ensure that any Crown land within the activity area is maintained in a condition so as to minimize hazards, including but not limited to hazards associated with storage of materials and equipment.
14. The permit holder must ensure that any Crown land within the activity area is maintained free of garbage, debris and derelict equipment.

Environmental

15. The permit holder must implement and maintain an ongoing invasive plant assessment, treatment, and monitoring program, including maintaining an invasive plant compliance record. This record must be made available to the BC Energy Regulator upon request.
16. The permit holder must not conduct clearing between April 1 and September 15 within marbled murrelet habitat or within 200 metres of an active marbled murrelet nest.
17. The permit holder must not conduct clearing between March 18 and July 27 within spotted owl habitat or within 500 metres of an active spotted owl nest.
18. Construction activities must not result in rutting, compaction or erosion of soils that cannot be reasonably rehabilitated to similar levels of soil productivity that existed on the activity area prior to the construction activities taking place.
19. Following the completion of construction, the permit holder must, where practicable, utilize woody debris and cut vegetation to promote the restoration of the wildlife habitat that was existing on the area prior to the commencement of any works authorized under this permit.

Clearing/Forest Act

20. The permit holder is permitted to fell any trees located on Crown land within 1.5 tree lengths of the activity area that are considered to be a safety hazard according to Workers Compensation Act regulations and must be felled in order to eliminate the hazard. Trees or portions of these trees that can be accessed from the activity area without causing damage to standing timber may be harvested.

21. The holder of the cutting permit must pay to the government, stumpage and any waste billing determined in accordance with the terms of this authorization.
22. The authorized cutting permit does not grant the permit holder the exclusive right to harvest Crown timber from the activity area. Authority to harvest some or all of the timber may be granted to other persons. The permit holder's right to harvest timber applies to any timber found on the site at the time they undertake harvesting activities.
23. All harvested Crown Timber must be marked with the cutting permit's associated Timber Mark.
24. Any waste assessments applied under the Master Licence to Cut are subject to the merchantability specifications and monetary waste billing requirements in the Provincial Logging Residue and Waste Manual specific to the region associated with the Cutting Permit authorization.
25. Stumpage will be calculated in accordance with the Coast Appraisal Manual (volume based).

Water Course Crossings and Works

26. Stream, lake and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
27. Construction or maintenance activities within a fish bearing stream or wetland must occur:
 - a. during the applicable reduced risk work windows as specified in the South Coast Region - Reduced Risk Window;
 - b. in accordance with alternative timing and associated mitigation recommended in a plan prepared by a qualified professional and accepted by the BC Energy Regulator; or
 - c. in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the BC Energy Regulator;

If activities are to occur in accordance with b or c above, the documentation must be submitted to the BC Energy Regulator at postpermitrequests@bc-er.ca prior to commencement of activities.

28. At any time, the BC Energy Regulator may suspend instream works authorized under this permit. Suspensions on instream works will remain in place until such time as the BC Energy Regulator notifies permit holders that works may resume. Reasons for suspension of works may include, but are not limited to, drought conditions and increased environmental or public safety risks.
29. Equipment used for activities under this Permit must not be situated in a stream channel unless it is dry or frozen to the bottom at the time of the activity.
30. The permit holder must ensure any instream works related to maintenance are planned and overseen by a qualified professional. This individual must assess and determine whether planned works pose a risk to any of the features listed below, and is responsible for developing and implementing mitigation measures to reduce any potential impacts on these features, as required:
 - a. fish or important fisheries habitat;
 - b. species identified as special concern, threatened, or endangered under the federal *Species at Risk Act*; or
 - c. species identified by Order as a species at risk under the *Forest and Range Practices Act* or the *Energy Resource Activities Act*.

This assessment must be provided to the BC Energy Regulator upon request.

31. Following initial construction, stream, lake and wetlands crossings are authorized for necessary pipeline maintenance activities on the activity area except for:
 - a. works within the boundary of a provincial park;
 - b. stream bank or stream bed revetment works in a stream classified as S1, S2, S3, S4 or S5;

- c. pipe replacement within the stream channel where the original application specified a trenchless crossing method and the planned works involve a trenched crossing method;
 - d. permanent alteration of a stream bank;
 - e. works within a Temperature Sensitive Stream established by order under s. 27 of the Environmental Protection and Management Regulation; or
 - f. works within a Fisheries Sensitive Watershed established by order under s. 28 of the Environmental Protection and Management Regulation.
32. Open cut crossings and works within streams, lakes or wetlands must be planned and conducted in accordance with the following requirements:
- a. an open cut of a stream classified as S1, S2, S3 or S4 must not occur, unless the stream is frozen to its bed or is completely dry with no evidence of subsurface flow;
 - b. impacted Riparian Management Areas of an open cut of a stream must be restored, to the extent practicable, by re-vegetating any exposed soil on the Riparian Management Areas using seed or vegetative propagules of an ecologically suitable species that
 - i. promote the restoration of the wildlife habitat that existed on the area before the construction was initiated, and
 - ii. stabilize the soil if it is highly susceptible to erosion;
 - c. unless otherwise authorized by Fisheries and Oceans Canada, spawning gravels must not be disturbed when redds that contain eggs or alevins are present. The authorization must be provided to the BC Energy Regulator; and
 - d. channels, banks and beds of streams, including any disturbed stable natural material must be restored, to the extent practicable, to the structure and conditions that existed before the crossing construction was initiated.
33. Flow isolation crossings and works must be planned and conducted in accordance with the condition above regarding open cut crossings, and the following additional requirements:
- a. construction of the crossing or works, including the location and operation of any equipment, must be isolated from water flowing in the stream;
 - b. water from flumes, pump-arounds, diversions, or other methods must be released to downstream areas in a manner that avoids erosion or sediment release;
 - c. pump intakes must not disturb beds of fish bearing streams, except as necessary to ensure safe installation and operation of equipment, and must be screened with maximum mesh sizes and approach velocities in accordance with the Fisheries and Oceans Canada 'Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater'; and
 - d. water flows downstream of in-stream construction sites must be maintained at volume and discharge consistent with upstream flows.
34. Mechanical stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:
- a. To facilitate construction of a crossing, a machine is permitted to ford the stream a maximum of one time in each direction at the crossing location.
 - b. Only bridges, culverts, ice bridges or snow fills may be constructed at stream crossings;
 - c. The permit holder must ensure that permanent bridges are designed and fabricated in compliance with:
 - i. the Canadian Standards Association Canadian Bridge Design Code, CAN/CSA-S6; and

- ii. soil property standards, as they apply to bridge piers and abutments; set out in the Canadian Foundation of Engineering Manual.
- d. Except with leave of the BC Energy Regulator, the permit holder must ensure that
 - i. culverts are designed and fabricated in compliance with the applicable:
 - a. Canadian Standards Association CSA G401, Corrugated Steel Pipe Products; or
 - b. Canadian Standards Association Standard CSA B1800, Section B182.8, Plastic Non-pressure Pipe Compendium; or
 - ii. any pipe installed in lieu of a culvert is of at least equivalent standard and strength as any culvert as specified above.
- e. Except with leave of the BC Energy Regulator, the permit holder must ensure that bridges or culverts meet the criteria set out in i., ii. or iii. below:
 - i. the bridge or culvert is designed to pass the highest peak flow of the stream that can reasonably be expected within the return periods set out in Column 2 of the table below for the period the permit holder anticipates the structure will remain on site, as set out in Column 1 of the table below:

Anticipated period crossing structure will remain on site	Peak flow period
Bridge or culvert, 3 years or less	10 years
Bridge other than a bridge within a community watershed, more than 3 years but less than 15	50 years
Bridge within a community watershed, more than 3 years	100 years
Bridge, 15 years or more	100 years
Culvert, more than 3 years	100 years

- ii. the bridge, or any component of the bridge:
 - a. is designed to pass expected flows during the period the bridge is anticipated to remain on the site;
 - b. is constructed, installed and used only in a period of low flow; and
 - c. is removed before any period of high flow begins.
- iii. the culvert;
 - a. is a temporary installation, and the permit holder does not expect to subsequently install a replacement culvert at that location;
 - b. is not installed in a stream, when the stream contains fish;
 - c. is sufficient to pass flows that occur during the period the culvert remains on the site;
 - d. is installed during a period of low flow; and
 - e. is removed before any period of high flow begins.
- f. Bridge or culvert abutments, footings and associated scour protection must be located outside the natural stream channel and must not constrict the channel width.
- g. Wetland crossings must be constructed, maintained and removed in accordance with the following:
 - i. organic cover within and adjacent to the wetland must be retained;
 - ii. minimize erosion or release of sediment within the wetland;
 - iii. any padding materials must be placed on the wetland surface only and must not be used for infilling;
 - iv. any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and

- v. the wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.

Archaeology

35. If an artifact, feature, material or thing protected under the *Heritage Conservation Act* is identified within the activity area, the permit holder must, unless the permit holder holds a permit under Section 12.4 of the *Heritage Conservation Act* issued by the BC Energy Regulator in respect of that artifact, feature, material or thing:
- Immediately cease all work in the vicinity of the artifacts, features, materials or things;
 - Immediately notify the BC Energy Regulator; and
 - Resume work in the vicinity of the artifacts, features, materials or things in accordance with direction from the BC Energy Regulator.
36. Prior to the commencement of construction activities the permit holder must:
- Complete an archaeological impact assessment of accessible portions of the activity area as identified by a qualified archaeologist in accordance with applicable requirements of the *Heritage Conservation Act*. A qualified archaeologist is defined as an Northwest Coast field director or *Heritage Conservation Act* permit holder approved by the Archaeology Branch of MOF.
 - Complete and submit to the BC Energy Regulator an acceptable archaeological impact assessment report on the results of the assessment.
37. For portions of the activity area that are inaccessible for a pre-construction archaeological impact assessment the permit holder must:
- ensure a qualified archaeologist is present during construction activities to ensure that archaeological resources are not impacted. A qualified archaeologist is defined as an Northwest Coast field director or *Heritage Conservation Act* permit holder approved by the Archaeology Branch of MOF.
 - complete and submit to the BC Energy Regulator an acceptable report on the results of the archaeological monitoring.

Activity Specific Details, Permissions and Conditions

Pipelines

Land Area Number: 100023887
Pipeline Project Number: 000025844

Technical Specification Details

Seg No.: 001	From: B-026-C/092-G-10 To: C-048-I/092-G-11
Flow Direction: Bi-Directional Product: Natural Gas - Sweet Installation Number(s): 1, 2	Maximum Operating Pressure (kpa): 14890 Max H2S (mol%): 0.0
Seg No.: 002	From: C-048-I/092-G-11 To: B-063-J/092-G-11
Flow Direction: Bi-Directional Product: Natural Gas - Sweet Installation Number(s): 1, 2, 3	Maximum Operating Pressure (kpa): 14890 Max H2S (mol%): 0.0

Technical Pipeline Permissions

38. Despite the Technical Specification Details identified above, changes made to adjust the outside diameter, adjust the wall thickness, change the pipe grade, change pipeline product in a manner that conforms to the "Allowable Pipeline Product Changes Table", reduce H2S, reduce maximum operating pressure, change the flow direction, minor modifications to an installation or to split a segment to a pipeline authorized under this permit, do not require an amendment to the permit provided that:

- a. prior notice of the change is provided, in the form and manner the BC Energy Regulator requires;
- b. the change is not made before the 7th day after the notice identified in (a) is submitted or the day the permit holder receives notification from the BC Energy Regulator, whichever occurs first;
- c. the change does not affect direct connections to pipelines and facilities;
- d. there are no changes to approved pressure protection, H2S protection or isolation;
- e. there is no substantive impact to any aspect of the project that was included in the consultation;
- f. the design and operation of the pipeline continues to meet all regulatory requirements and the requirement of CSA Z662.

39. Piping & Instrumentation Diagram(s) submitted by FortisBC Energy Inc.:

62034-X-100-1012-R0 Revision 0, dated February 15, 2023,

62034-X-100-1011-R0 Revision 0, dated February 15, 2023,

62034-X-100-1036-R0 Revision 0, dated February 15, 2023,

Changes may be made to pigging design, and to above ground valves and piping, provided that:

- a. the changes do not affect direct connections to pipelines and facilities;
- b. there are no changes to approved pressure protection, H2S protection or isolation;
- c. there is no substantive impact to any aspect of the project that was included in the consultation; and
- d. the design and operation of the pipeline continues to meet all regulatory requirements and the requirements of CSA Z662.

All permissions for this activity are subject to the following conditions:

Pipeline Conditions

40. The permit holder must not undertake any directionally drilled pipeline stream crossing work until it has submitted, to the satisfaction of the BC Energy Regulator, a feasibility study for such work consistent with CSAZ662 Clause 4.22 and 6.2.11 that has been completed and endorsed by a qualified specialist. The feasibility study must be emailed to Pipelines.Facilities@bc-er.ca, referencing AMS Application #100119158-3.

Associated Activities

All authorizations for associated activities are subject to the following conditions:

Associated Activity Conditions

41. Topsoil stripping, ditching and road bed construction are not permitted within temporary access trails.
42. Any temporary access must be constructed and maintained in a manner that provides for proper surface drainage, prevents pooling on the surface, and maintains slope integrity.

Advisory Guidance

1. The permit holder should be aware that there may be First Nation's traditional, cultural, or spiritual activities occurring concurrently with maintenance activities, as well as areas of current use or cultural resources that overlap the activity area. All reasonable efforts should be made to minimize interference with those activities while carrying out the activities authorized herein.
2. Appropriate tenure may be issued upon acceptance of the post-construction plan. Submission of the original application and submission of the post-construction plan is considered an application for all subsequent applicable *Land Act* tenures. Upon the BC Energy Regulator's acceptance of the post-construction plan no further applications for replacement tenure are required.

3. Temporary access is intended to be short term access to facilitate construction of an energy resource activity. It is not intended for sustained use and is not constructed to energy resource road standards.

Refusals

The BC Energy Regulator, under section 26 (1) (a) of the *Energy Resource Activities Act* (ERAA), hereby refuses permissions for the following activity(s) indicated in the Refused Activities table below and submitted as part of the Application Number referenced above.

Refused Activities

Associated Activity No.: 242212	Type: Access
--	---------------------

All pages included in this permit and any attached documents form an integral part of this permit.



Norberto Pancera
Authorized Signatory
BC Energy Regulator Delegated Decision Maker

Copied to:

First Nations – Kwikwetlem First Nation, Musqueam Indian Band, People Of The River Referrals Office (PRRO), Seabird Island First Nation, Shxw'owhamel First Nation, Skawahlook First Nation (PRRO), Soowahlie First Nation (PRRO), Squamish Nation, Sto:lo Nation (PRRO), Sto:lo Tribal Council (PRRO), Tsleil-Waututh Nation
Landowners/Rights Holders

Ministry of Forests District Office - (DSQ) Sea to Sky Natural Resource District

Ministry of Forests District Office - (DCK) Chilliwack Natural Resource District

Work Safe BC

October 27, 2022

FortisBC Energy Inc.
16705 Fraser Highway
Surrey, BC V4N 0E8

Attention: FortisBC Energy Inc.

RE: Determination of Application Number 100111735

Permit Holder: FortisBC Energy Inc.

Date of Issuance: October 27, 2022

Effective Date: October 27, 2022

Application Submission Date: July 19, 2021

Application Determination Number: 100111735

Approved Disturbance Footprint: 138.361 ha

AUTHORIZED ACTIVITIES

Pipeline Project No.: 000025844	Segment No.: 1, 2 & 3
Associated Oil & Gas Activity No.: 00215971, 00215990, 00215991, 00215992, 00215993, 00215994, 00215995, 00215996	Type: Access
Associated Oil & Gas Activity No.: 00215940, 00215941, 00215947, 00215948, 00215949, 00215950, 00215951, 00215952, 00215953, 00215954, 00215955, 00215956, 00215957, 00215958, 00215959, 00215960, 00215961, 00215962, 00215963, 00215964, 00215965, 00215966, 00215967, 00215968, 00215969, 00215970, 00215972, 00215973, 00215974, 00215975, 00215976, 00215977, 00215978, 00215979, 00215980, 00215981, 00215983, 00215984, 00215985, 00215986, 00215987, 00215988, 00215989, 00215997, 00215998, 00215999, 00216000, 00216001, 00216002, 00216003, 00216004, 00216005, 00216006, 00216007, 00216008, 00216009, 00216010, 00216011, 00216012, 00216013, 00216014, 00216015, 00216016, 00216017, 00216018, 00216019, 00216020, 00216021, 00216022, 00216023, 00216024, 00216025, 00216026, 00216027, 00216028, 00216029, 00216030, 00216031, 00216032, 00216033, 00216034, 00216035, 00216036, 00216037, 00216038, 00216039, 00216040, 00216041, 00216042, 00216043, 00216044, 00216045, 00216046, 00216047, 00216048, 00216049, 00216050, 00216051, 00216052, 00216053, 00216054, 00216055, 00216056, 00216057, 00216058, 00216059, 00216060, 00216061, 00216062, 00216063, 00216064, 00216065, 00216066, 00216073, 00216074, 00216075, 00216076, 00216077, 00216078, 00216079, 00216080, 00216081, 00216082, 00216083, 00216084, 00216085, 00216086, 00216087, 00216088, 00216101, 00216102, 00216103, 00216104, 00216105, 00216106, 00216107, 00216108, 00216109, 00216110, 00216111, 00216112, 00216113, 00216114, 00216115, 00216116, 00216117	Type: Workspace
Short Term Water Use No.: 0005984	Point of Diversion No.: 001, 002, 003
Changes In and About a Stream: 0006978,	

GENERAL PERMISSIONS, AUTHORIZATIONS AND CONDITIONS

PERMISSIONS

Oil and Gas Activities Act

1. The BC Oil and Gas Commission, under section 25 (1) of the *Oil and Gas Activities Act*, hereby permits the permit holder referenced above to carry out the following activities, indicated in the Authorized Activities table above, subject to the conditions contained herein, any applicable exemptions and authorizations:
 - a. To construct and operate a pipeline as detailed in the Technical Specification Details tables below.
2. The permissions and authorizations granted under this permit are limited to the area identified in the spatial data submitted to the Commission in the permit application as identified and dated above; herein after referred to as the 'activity area'.
3. The Commission, pursuant to section 39 of the *Land Act*, hereby approves the occupation and use of any Crown land located within the activity area.
 - a. A Licence approved under section 39 of the *Land Act* for the Crown land portion of this application will follow. The permit holder is subject to the conditions contained in the Licence.
 - b. The approval to occupy and use Crown land under the Licence expires two years from the date of issuance, unless the Commission has received notice of construction start, or this permit is otherwise extended, suspended, cancelled, surrendered or declared spent.
 - c. The approval to occupy and use Crown land does not entitle the permit holder to exclusive possession of the activity area.
 - d. The total disturbance within the activity area must not exceed the total approved disturbance footprint as referenced above.
4. Notwithstanding the above permissions and authorizations, this permit does not authorize the following Associated Oil and Gas Activity(s): Workspace - 00215942, 00215943, 00215944, 00215945, 00215946, 00215982, 00216067, 00216068, 00216069, 00216070, 00216071, 00216072, 00216089, 00216090, 00216091, 00216092, 00216093, 00216094, 00216095, 00216096, 00216097, 00216098, 00216099, 00216100.

Forest Act

5. The Commission, pursuant to section 47.4 of the *Forest Act*, hereby authorizes the removal of Crown timber from the activity area under the cutting permits associated with the Master Licence(s) as follows:

Master Licence to Cut No.: M02441

Cutting Permit No.: 4

Timber Mark No.: MTD249

Total New Cut: 125.23 hectares

Forest District: (DSQ) Sea to Sky Natural Resource District

Region: Coastal

6. The cutting permits are deemed spent upon the submission of the post-construction plan or upon either the cancellation or expiry of the activities authorized under the permit.

Water Sustainability Act

7. The Commission, pursuant to section 10 of the *Water Sustainability Act*, hereby authorizes the diversion, storage and use of Crown water from the point(s) of diversion detailed in the Short Term Water Use Details table below.

CONDITIONS

Notification

8. Within 60 days of the completion of construction activities under this permit, the permit holder must submit to the Commission a post-construction plan as a shapefile and PDF plan accurately identifying the

location of the total area actually disturbed under this permit. The shapefile and plan must be submitted via eSubmission.

9. A notice of maintenance activities must be submitted, as per the relevant Commission process at the time of submission, at least two (2) working days prior to the commencement of any changes in or about a stream associated with maintenance activities.
10. At least ten (10) working days prior to the commencement of any changes in or about a stream associated with maintenance activities, the permit holder must provide a notice of works to any First Nation(s) who may have Aboriginal Interests identified, as per the BC First Nations Consultative Areas Database, within the area in which the works are to occur.
11. The Permit Holder must notify the First Nation(s) copied on this permit/authorization at least 5 (five) working days prior to project commencement.
12. At least one week prior to the beginning of each month, the permit holder must submit a schedule to the Commission and First Nations indicating the location and timing of in-stream work planned to commence the following month.

Environmental

13. Construction activities must not result in rutting, compaction or erosion of soils that cannot be reasonably rehabilitated to similar levels of soil productivity that existed on the activity area prior to the construction activities taking place.
14. Any temporary access must be constructed and maintained in a manner that provides for proper surface drainage, prevents pooling on the surface, and maintains slope integrity.
15. Topsoil stripping, ditching and road bed construction are not permitted within the temporary access trails used to access water withdrawal points of diversion.
16. The permit holder must not conduct clearing between March 18 and July 27 within spotted owl habitat or within 500 metres of an active spotted owl nest.
17. Following the completion of construction, the permit holder must, where practicable, utilize woody debris and cut vegetation to promote the restoration of the wildlife habitat that was existing on the area prior to the commencement of any works authorized under this permit.

Clearing/Forest Act

18. The permit holder is permitted to fell any trees located on Crown land within 1.5 tree lengths of the activity area that are considered to be a safety hazard according to Workers Compensation Act regulations and must be felled in order to eliminate the hazard. Trees or portions of these trees that can be accessed from the activity area without causing damage to standing timber may be harvested.
19. The holder of the cutting permit must pay to the government, stumpage and any waste billing determined in accordance with the terms of this authorization.
20. The authorized cutting permit does not grant the permit holder the exclusive right to harvest Crown timber from the activity area. Authority to harvest some or all of the timber may be granted to other persons. The permit holder's right to harvest timber applies to any timber found on the site at the time they undertake harvesting activities.
21. All harvested Crown Timber must be marked with the cutting permit's associated Timber Mark.
22. Any waste assessments applied under the Master Licence to Cut are subject to the merchantability specifications and monetary waste billing requirements in the Provincial Logging Residue and Waste Manual specific to the region associated with the Cutting Permit authorization.
23. Stumpage will be calculated in accordance with the Coast Appraisal Manual (volume based).

Water Course Crossings and Works

24. Stream, lake and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
25. Construction or maintenance activities within a fish bearing stream or wetland must occur:

- a. during the applicable reduced risk work windows as specified in the Lower Mainland-Reduced Work Windows;
- b. in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission; or
- c. in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission;

If activities are to occur in accordance with b or c above, the documentation must be submitted to the Commission prior to commencement of activities.

26. At any time, the Commission may suspend instream works authorized under this permit. Suspensions on instream works will remain in place until such time as the Commission notifies permit holders that works may resume. Reasons for suspension of works may include, but are not limited to, drought conditions and increased environmental or public safety risks.
27. Equipment used for construction or maintenance activities under this Permit must not be located in a stream channel, unless there is no surface water flow or the stream is frozen at the commencement of the activity.
28. The permit holder must ensure any instream works related to maintenance are planned and overseen by a qualified professional. This individual must assess and determine whether planned works pose a risk to any of the features listed below, and is responsible for developing and implementing mitigation measures to reduce any potential impacts on these features, as required:
 - a. fish or important fisheries habitat;
 - b. species identified as special concern, threatened, or endangered under the federal *Species at Risk Act*; or
 - c. species identified by Order as a species at risk under the *Forest and Range Practices Act* or the *Oil and Gas Activities Act*.

This assessment must be provided to the Commission upon request.

29. Following initial construction, stream, lake and wetlands crossings are authorized for necessary pipeline maintenance activities on the activity area except for:
 - a. works within the boundary of a provincial park;
 - b. stream bank or stream bed revetment works in a stream classified as S1, S2, S3, S4 or S5;
 - c. pipe replacement within the stream channel where the original application specified a trenchless crossing method and the planned works involve a trenched crossing method;
 - d. permanent alteration of a stream bank;
 - e. works within a Temperature Sensitive Stream established by order under s. 27 of the Environmental Protection and Management Regulation; or
 - f. works within a Fisheries Sensitive Watershed established by order under s. 28 of the Environmental Protection and Management Regulation.
30. Open cut crossings and works within streams, lakes or wetlands must be planned and conducted in accordance with the following requirements:
 - a. an open cut of a stream classified as S1, S2, S3 or S4 must not occur unless the stream is verified upon the commencement of initial instream construction to be frozen to its bed or completely dry with no evidence of subsurface flow;
 - b. unless otherwise authorized by Fisheries and Oceans Canada, spawning gravels must not be disturbed when redds that contain eggs or alevins are present. The authorization must be provided to the Commission; and
 - c. channels, banks and beds of streams, including any disturbed stable natural material must be restored, to the extent practicable, to the structure and conditions that existed before the crossing construction was initiated.

31. Flow isolation crossings and works must be planned and conducted in accordance with the condition above regarding open cut crossings, and the following additional requirements:
- construction of the crossing, including the location and operation of any equipment, must be isolated from water flowing in the stream;
 - water from flumes, pump-arounds, diversions, or other methods must be released to downstream areas in a manner that avoids erosion or sediment release;
 - pump intakes must not disturb beds of fish bearing streams, except as necessary to ensure safe installation and operation of equipment, and must be screened with maximum mesh sizes and approach velocities in accordance with the Fisheries and Oceans Canada 'Interim Code of Practice: End-of-pipe fish protection screens for small water intakes in freshwater'.; and
 - water flows downstream of in-stream construction sites must be maintained at volume and discharge consistent with upstream flows.
32. Mechanical stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:
- To facilitate construction of a crossing, a machine is permitted to ford the stream a maximum of one time in each direction at the crossing location.
 - Only bridges, culverts, ice bridges or snow fills may be constructed at stream crossings;
 - The permit holder must ensure that permanent bridges are designed and fabricated in compliance with:
 - the Canadian Standards Association Canadian Bridge Design Code, CAN/CSA-S6; and
 - soil property standards, as they apply to bridge piers and abutments; set out in the Canadian Foundation of Engineering Manual.
 - Except with leave of the Commission, the permit holder must ensure that
 - culverts are designed and fabricated in compliance with the applicable:
 - Canadian Standards Association CSA G401, Corrugated Steel Pipe Products; or
 - Canadian Standards Association Standard CSA B1800, Section B182.8, Plastic Non-pressure Pipe Compendium; or
 - any pipe installed in lieu of a culvert is of at least equivalent standard and strength as any culvert as specified above.
 - Except with leave of the Commission, the permit holder must ensure that bridges or culverts meet the criteria set out in i., ii. or iii. below:
 - the bridge or culvert is designed to pass the highest peak flow of the stream that can reasonably be expected within the return periods set out in Column 2 of the table below for the period the permit holder anticipates the structure will remain on site, as set out in Column 1 of the table below:

Anticipated period crossing structure will remain on site	Peak flow period
Bridge or culvert, 3 years or less	10 years
Bridge other than a bridge within a community watershed, more than 3 years but less than 15	50 years
Bridge within a community watershed, more than 3 years	100 years
Bridge, 15 years or more	100 years
Culvert, more than 3 years	100 years

- the bridge, or any component of the bridge:

- a. is designed to pass expected flows during the period the bridge is anticipated to remain on the site;
 - b. is constructed, installed and used only in a period of low flow; and
 - c. is removed before any period of high flow begins.
- iii. the culvert;
 - a. is a temporary installation, and the permit holder does not expect to subsequently install a replacement culvert at that location;
 - b. is not installed in a stream, when the stream contains fish;
 - c. is sufficient to pass flows that occur during the period the culvert remains on the site;
 - d. is installed during a period of low flow; and
 - e. is removed before any period of high flow begins.
- f. Bridge or culvert abutments, footings and associated scour protection must be located outside the natural stream channel and must not constrict the channel width.
- g. Wetland crossings must be constructed, maintained and removed in accordance with the following:
 - i. organic cover within and adjacent to the wetland must be retained;
 - ii. minimize erosion or release of sediment within the wetland;
 - iii. any padding materials must be placed on the wetland surface only and must not be used for infilling;
 - iv. any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and
 - v. the wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.

Archaeology

33. If an artifact, feature, material or thing protected under the *Heritage Conservation Act* is identified within the activity area, the permit holder must, unless the permit holder holds a permit under Section 12.4 of the *Heritage Conservation Act* issued by the BC Oil and Gas Commission in respect of that artifact, feature, material or thing:
- a. Immediately cease all work in the vicinity of the artifacts, features, materials or things;
 - b. Immediately notify the BC Oil and Gas Commission; and
 - c. Resume work in the vicinity of the artifacts, features, materials or things in accordance with direction from the BC Oil and Gas Commission.
34. Prior to the commencement of construction activities the permit holder must:
- a. Complete an archaeological assessment of the activity area in accordance with applicable requirements of the *Heritage Conservation Act*, and
 - b. Complete and submit to the BC Oil and Gas Commission an acceptable report on the results of the assessment.
35. If the report required under the condition above recommends any further assessment work on an area, the permit holder must not begin construction activities on that area until the further assessment is completed.

ACTIVITY SPECIFIC DETAILS, PERMISSIONS AND CONDITIONS

PIPELINES

Land Area Number: 100017114

Pipeline Project Number: 000025844

TECHNICAL SPECIFICATION DETAILS

Seg No.: 1	From: B-026-C/092-G-10 To: B-058-I/092-G-11
Flow Direction: Bi-Directional	Maximum Operating Pressure (kpa): 14890
Product: Natural Gas - Sweet	Max H₂S (mol%): 0.0
Installation Number(s): 1, 2	
Seg No.: 2	From: B-058-I/092-G-11 To: B-063-J/092-G-11
Flow Direction: Bi-Directional	Maximum Operating Pressure (kpa): 14890
Product: Natural Gas - Sweet	Max H₂S (mol%): 0.0
Installation Number(s): 1, 2	
Seg No.: 3	From: A-063-J/092-G-11 To: A-063-J/092-G-11
Flow Direction: Bi-Directional	Maximum Operating Pressure (kpa): 14890
Product: Natural Gas - Sweet	Max H₂S (mol%): 0.0
Installation Number(s): 1, 2, 3, 4	

Piping & Instrumentation Diagrams(s) ("P&IDs") submitted by FortisBC Energy Inc.:

62034-X-100-1013-RO-H Revision OH, dated August 23, 2020

62034-X-100-1012-RO-H Revision OH, dated August 23, 2020

62034-X-100-1011-RO-H Revision OH, dated August 23, 2020

Technical Pipeline Permissions

36. Changes may be made to pigging design and to above ground valves and piping identified in the P&IDs referenced above, provided that:
 - a. the changes do not affect direct connections to pipelines and facilities;
 - b. there are no changes to approved pressure protection, H₂S protection or isolation;
 - c. there is no substantive impact to any aspect of the project that was included in the consultation; and
 - d. the design and operation of the pipeline continues to meet all regulatory requirements and the requirement of CSA Z662.
37. Changes may be made to adjust the outside diameter, adjust the wall thickness, change the pipe grade, change a flange or valve rating, adjust the depth of cover, allow for temporary flow reversal, allow for temporary flow of water, and to split segments identified in the P&IDs referenced above, provided that:
 - a. notice of the change is provided to the Commission (via email at OGCPipelines.Facilities@bcogc.ca, referencing AMS Application #10011735) at least 30 days before the change is made;
 - b. the change does not affect direct connections to pipelines and facilities;
 - c. there are no changes to approved pressure protection, H₂S protection or isolation;
 - d. there is no substantive impact to any aspect of the project that was included in the consultation; and

- e. the design and operation of the pipeline continues to meet all regulatory requirements and the requirement of CSA Z662.

All permissions for this activity are subject to the following conditions:

Pipeline Conditions

- 38. At least 2 days prior to pipeline stringing-activities in the field, the permit holder must contact the Commission via email at OGCPipelines.Facilities@bcogc.ca, referencing AMS Application #100111735.
- 39. At least 90 days prior to commencement of field welding of the pipeline, the permit holder must submit, the following:

- a. the welding procedure specification, procedure qualification record, and welder procedure qualification.
- b. an assessment that includes specific measures incorporated in design and construction methods, materials testing and integrity management to mitigate risk associated with under-matched girth welds, that has been signed off by a professional engineer.

These documents must be sent to OGCPipelines.Facilities@bcogc.ca, referencing application #100111735. The permit holder must implement the the procedure and assessment results.

- 40. At least 90 days prior to initiating pipe stringing-activities, the permit holder must submit the following:
 - a. The design measures to provide control of fracture propagation as per clause 5.2.2.3 in CSA Z662

These documents must be sent to OGCPipelines.Facilities@bcogc.ca, referencing application #100111735.

- 41. At least 90 days prior to initiating pipe stringing-activities in areas where geohazard(s) are present, the permit holder must submit:
 - a. a geohazard summary, that outlines the studies that were completed which includes:
 - i. a description of the geohazard(s) identified that are potentially credible or credible, with the location of each geohazard illustrated on either a map or in a table; and
 - ii. specific design measures, such as materials to be used, installation procedures, protective structures, depth of cover, and monitoring that will be implemented to mitigate the geohazard(s) identified in (a); and
 - b. a field changes manual for geohazards that includes:
 - i. criteria for measures, including those identified in (b) above, that will be implemented to mitigate any additional geohazards identified during construction; and
 - ii. qualification requirements for field staff who will implement the field changes manual.

These documents must be sent to OGCPipelines.Facilities@bcogc.ca, referencing application #100111735.

- 42. Within 24 months of commencement of operation of this pipeline, the permit holder must submit to the Commission the results and interpretation of a high-resolution in-line inspection tool run to establish an accurate position of the pipeline (GEOPIG) and to detect pipe deformation and defects. The results and interpretation must be sent to OGCPipelines.Facilities@bcogc.ca, referencing application # 100111735.

SHORT TERM WATER USE

Short Term Water Use Number - 0005984

Approval Period – From: October 27, 2022, **To:** October 27, 2024

ACTIVITY DETAILS

Point of Diversion No.: 001	Water Source Name: Hixon Creek
Type: Stream/River Purpose: Oil and Gas, Industrial & Storage Location (UTM): Zone 10, Northing 5485711, Easting 511914 Maximum Withdrawal Rate (l/s): 0.03m3/s Daily Withdrawal Volume (m³/day): 2325 Total Withdrawal Volume (m³): 55800	
Point of Diversion No.: 002	Water Source Name: Squamish River
Type: Stream/River Purpose: Oil and Gas, Industrial & Storage Location (UTM): Zone 10, Northing 5508346, Easting 488261 Maximum Withdrawal Rate (l/s): 0.04m3/s Daily Withdrawal Volume (m³/day): 3813 Total Withdrawal Volume (m³): 91500	
Point of Diversion No.: 003	Water Source Name: Stawamus River
Type: Stream/River Purpose: Oil and Gas, Industrial & Storage Location (UTM): Zone 10, Northing 5501783, Easting 494997 Maximum Withdrawal Rate (l/s): 0.043m3/s Daily Withdrawal Volume (m³/day): 3715 Total Withdrawal Volume (m³): 76252	

All authorizations for this activity are subject to the following conditions:

Short Term Water Use Conditions

43. No instream works are permitted under this authorization.
44. A copy of this authorization must be available for inspection at the point of diversion and use location(s).
45. Water withdrawn under this authorization must only be used for the purposes of carrying out the oil and gas activities or related activities.
46. Water must not be diverted or withdrawn from any beaver pond.
47. Water withdrawal must not occur where:
 - a. stream discharge is less than 55 L/s;
 - b. the diversion will cause the stream discharge to fall below 55 L/s;
 - c. stream (wetted) depth is less than 0.30 metres (12 inches) at the withdrawal location; or
 - d. the diversion will cause the stream (wetted) depth to fall below 0.30 metres (12 inches) at the withdrawal location.
48. End-of-pipe intakes must be screened with maximum mesh sizes in accordance with the Fisheries and Oceans Canada 'Interim Code of Practice: End-of-pipe fish protection screens for small water intakes in freshwater'.
49. The permit holder must maintain accurate records of all water withdrawal activities throughout the term authorized. Water withdrawal records for each diversion point, including '0' values for months where no water was withdrawn, must be recorded monthly. Water withdrawal records must be submitted to the Commission on a quarterly basis via eSubmission. Quarterly reports are due on or before April 25, July 25, October 25 and January 25.

50. At any time, the Commission may suspend short term water use previously authorized. Water use suspensions will remain in place until such time as the Commission notifies permit holders that water withdrawals may resume.
51. The approval holder is authorized to store fresh water diverted under this use approval in dugouts or other fresh water storage structures provided:
 - a. the approval holder holds a valid permit or authorization to occupy the land on which the dugout or structure is located on unless a permit or authorization is not required, and
 - b. the dugout or structure is not subject to the Dam Safety Regulation unless the approval holder has a valid Water Licence and Leave to Operate the water storage structure.
52. The current stream flow of the Stawamus River at POD#3 must be monitored with a flow meter prior to any water withdrawals occurring.
53. Water withdrawals are prohibited when the flow of the Stawamus River, as measured at POD#3, is at or below 0.293m³/s.
54. On any day when water is being withdrawn the approval holder must keep records of daily water withdrawals in units of cubic metres (m³) and the flow of the Stawamus River as measured with a flow meter at POD#3 in units of cubic metres per second (m³/s). These records must be made available to Commission upon request.
55. Total water withdrawal from POD#3 is limited to 35m³ for the month of August.

ADVISORY GUIDANCE

1. Construction Plan - 20200005PL_0_OGC_WP GAK signed.pdf, Diversion Map - 20200005SK_SEC10_1.pdf is for the permit holder's internal reference only and was not reviewed as a decision tool for this permit, nor does it form an integral part of this permit.
2. Instructions for submitting notice of construction start, as required by regulation, can be found in the Oil and Gas Activity Operations Manual on the Commission's website.
3. The permit holder should be aware that there may be First Nation's traditional, cultural, or spiritual activities occurring concurrently with maintenance activities, as well as areas of current use or cultural resources that overlap the activity area. All reasonable efforts should be made to minimize interference with those activities while carrying out the activities authorized herein.
4. Appropriate tenure may be issued upon acceptance of the post-construction plan. Submission of the original application and submission of the post-construction plan is considered an application for all subsequent applicable *Land Act* tenures. Upon the Commission's acceptance of the post-construction plan no further applications for replacement tenure are required.
5. Temporary access is intended to be short term access to facilitate construction of an oil and gas activity. It is not intended for sustained use and is not constructed to oil and gas road standards.

All pages included in this permit and any attached documents form an integral part of this permit.



Mayka Kennedy
Executive Vice President, Safety & Compliance
Commission Delegated Decision Maker

Copied to:

First Nations – Kwikwetlem First Nation, Musqueam Indian Band, Squamish Nation, Tsleil-Waututh Nation, People Of
The River Referrals Office (PRRO), Seabird Island First Nation, Shxw'owhamel First Nation
Landowners/Rights Holders
Ministry of Forests District Office - (DSQ) Sea to Sky Natural Resource District
Work Safe BC
City of Squamish
BC Environmental Assessment Office