

Non OGAA v 4.0

Telephone: (250) 794-5200

Facsimile: (250) 794-5379

24 Hour: (250) 794-5200

January 23, 2019

Coastal GasLink Pipeline Ltd. 450 - 1st Street SW Calgary, AB T2P 5H1

Attention: Coastal GasLink Pipeline Ltd.

RE: Permit Replacement for Application Determination Number 100100842

Permit Holder: Coastal GasLink Pipeline Ltd.
Permit Date of Issuance: January 27, 2017
Replacement Date of Issuance: January 23, 2019
Replacement Expiration Date: January 27, 2020
Application Determination No.: 100100842

GENERAL PERMISSIONS, AUTHORIZATIONS and CONDITIONS

- 1. The BC Oil and Gas Commission (the "Commission"), hereby replaces the permit and any associated authorizations to construct and operate an ancillary oil and gas activity.
- 2. This permit replacement is subject to the conditions of the original permit, authorizations, subsequent amendments, corrections, and any additional conditions as set out herein.
- 3. The permit has been replaced for one year and will expire on January 27, 2020.

Petroleum and Natural Gas Act

4. Pursuant to Section 138(1) of the Petroleum and Natural Gas Act, the permit holder is authorized to enter, occupy and use any unoccupied Crown land located within the operating area to carry out the associated oil and gas activity authorized under this permit.

CONDITIONS

- 5. The rights granted by this authorization 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.
- 6. The Permit holder must not assign or sublicense this permit or permit any person to use or occupy the land, other than its employees, contractors, or representatives, without the Commission's written consent.
- 7. The Permit Holder must ensure that the area is maintained in a condition so as to minimize hazards, including but not limited to hazards associated with storage of materials and equipment.
- 8. The Permit Holder must ensure that the area is free of garbage, debris and unused equipment.

Application Submission Date: January 22, 2019

Application Determination number: 100100842 Date Issued: January 23, 2019

Jacquelina Rourko

Permit Holder: Coastal GasLink Pipeline Ltd.

Jacqueline Bourke Authorized Signatory Commission Delegated Decision Maker

pc: Land Agent – Roy Northern Land Service Ltd. OGC, Compliance and enforcement

Telephone: (250) 794-5200 Facsimile: (250) 794-5379 24 Hour: (250) 794-5200



Correction v 1.0

February 1, 2017

Coastal GasLink Pipeline Ltd. 450 - 1st Street SW Calgary, AB T2P 5H1

Attention: Coastal GasLink Pipeline Ltd.

Re: Correction of Application Determination Number 100100842

Permit Holder: Coastal GasLink Pipeline Ltd.

Date of Issuance: January 27, 2017

Application Submission Date: December 20, 2016 Application Determination Number: 100100842

Date of Correction: February 1, 2017

The BC Oil and Gas Commission hereby corrects the permit identified and dated above as follows:

Condition # 23 has been corrected to:

In-stream activities within a fish bearing stream, lake or wetland must occur:

- a) during the applicable reduced risk work windows as specified in the Region 7 Omineca Reduced Risk Timing Windows for Fish and Wildlife; or
- 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.

The Permit Holder must comply with any permissions, authorizations, approvals and conditions set out in the original permit, any subsequent amendments to the permit and any additional corrections as set out herein.

This letter forms an integral part of your permit and should be attached thereto.

Ashley Istead

Authorized Signatory

Commission Delegated Decision Maker

Copied to:

Land Agent – Roy Northern Land Services Ltd. First Nations – CSTC, NWFN, STFN, YFNB OGC Compliance and Enforcement



Non OGAA v 3.3

January 27, 2017

Coastal GasLink Pipeline Ltd. 450 - 1st Street SW Calgary, AB T2P 5H1

Attention: Coastal GasLink Pipeline Ltd.

RE: Determination of Application Area Number 100100842

Permit Holder: Coastal GasLink Pipeline Ltd.

Date of Issuance: January 27, 2017 Effective Date: January 27, 2017

Application Submitted Date: December 20, 2016 Application Determination Number: 100100842 Approved Disturbance Footprint: 39.82 ha

GENERAL PERMISSIONS, AUTHORIZATIONS and CONDITIONS

PERMISSIONS

Petroleum and Natural Gas Act

1. The BC Oil and Gas Commission (the "Commission") pursuant to section 138 of the *Petroleum and Natural Gas Act* hereby permits the Permit Holder referenced above to construct and operate a related activity(s) as set out in the applicable Permitted Activities, Authorized Activities, and Activity Details tables below for the purposes of carrying out oil and gas activities as defined in the *Oil and Gas Activities Act* (OGAA); subject to the conditions set out herein.

PERMITTED ACTIVITIES

Associated Oil & Gas Activity No.: 00146411, 00146412 Type: Campsite

AUTHORIZED ACTIVITIES

Changes In and About a Stream No.: 0003536 Stream Impact No.: 1

- 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 138(1) of the *Petroleum and Natural Gas Act*, hereby permits the occupation and use of any Crown land located within the activity area.

Application Determination Number: 100100842 Date Issued: January 27, 2017

a) The permission to occupy and use Crown land 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.

- b) The permission to occupy and use Crown land does not entitle the Permit Holder to exclusive possession of the activity area.
- c) The total disturbance within the activity area must not exceed the total approved disturbance footprint as referenced above.

GENERAL AUTHORIZATIONS and CONDITIONS

AUTHORIZATIONS

Water Sustainability Act

- 4. The Commission, pursuant to section 11 of the *Water Sustainability Act*, authorizes the changes in and about a stream, as detailed in the Activity Details table below within the activity area for construction and maintenance activities, unless otherwise restricted by this authorization.
 - a) Instream works must be carried out in accordance with the methods and any mitigations, as specified in the application.

CONDITIONS

Notification

- 5. A notice of construction start must be submitted prior to the commencement of activities under this permit 48 hours before or as per the relevant legislation if longer than 48 hours. Notification must submitted via Kermit for pipelines and facilities. For all other activity types notification must be submitted through OGC.ExternalNotifications@bcogc.ca.
- 6. 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.
- The permit holder must notify Carrier Sekani Tribal Council a minimum of five (5) days prior to commencement of construction activities.
- 8. The permit holder must notify Nadleh Whut'en First Nation a minimum of five (5) days prior to commencement of construction activities.
- 9. The permit holder must notify Yekooche First Nation a minimum of five (5) days prior to commencement of construction activities.
- The permit holder must notify Stellat'en First Nation a minimum of five (5) days prior to commencement of construction activities.

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, sublicence or permit any person to use or occupy the land, other than its employees, contractors, or representatives, without the Commission's written consent.
- 13. The Permit Holder must ensure that 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.

Permitting and Authorizations Physical Address: 6534 Airport Road, Fort St. John, BC Mailing Address: Bag 2, Fort St. John, BC V1J 2B0

Application Determination Number: 100100842 Date Issued: January 27, 2017

14. The Permit Holder must ensure that the activity area is free of garbage, debris and unused equipment.

Environmental

- 15. 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 operating area prior to the construction activities taking place.
- 16. 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.
- 17. The Permit Holder must make reasonable efforts to prevent establishment of invasive plants on the activity area resulting from the carrying out of activities authorized under this approval.
- Following completion of the construction activities authorized herein, the permit holder must, as soon as practicable
 - a) decompact any soils compacted by the activity;
 - b) if natural surface drainage pattern was altered by the carrying out of the activity, the permit holder must restore, to the extent practicable, to the drainage pattern and its condition before the alteration; and
 - re-vegetate any exposed soil on the activity area including, where necessary, using seed or vegetative propagules of an ecologically suitable species that
 - promote the restoration of the wildlife habitat that existed on the area before the oil and gas activity was begun, and
 - (ii) stabilize the soil if it is highly susceptible to erosion.
 - d) Following completion of construction activities authorized herein, any retrievable surface soils removed from the activity area must be redistributed so that the soil structure is restored, to the extent practicable, to its condition before the activity was begun.
- 19. The Permit Holder must ensure that the activities authorized under this approval do not result in any deleterious materials being deposited into a stream, wetland or lake.
- 20. Except to facilitate a crossing, the permit holder must not undertake construction or significant maintenance activities within 10m of any stream, wetland or lake.

Clearing

21. 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.

Water Course Crossings and Works

- 22. Stream, lake and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
- 23. In-stream activities within a fish bearing stream, lake or wetland must occur:
 - a) during the applicable reduced risk work windows as specified in the Region 7 Omineca Reduced Risk Timing Windows for Fish and Wildlife.
 - in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission
 - in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission.
- 24. At any time, the Commission may suspend instream works authorized under this approval. 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.

Permitting and Authorizations Page 3 of 6 Telephone: (250) 794-5200 Physical Address: 6534 Airport Road, Fort St. John, BC Facsimile: (250) 794-5379 Mailing Address: Bag 2, Fort St. John, BC V1J 2B0 24 Hour: (250) 794-5200

Application Determination Number: 100100842 Date Issued: January 27, 2017

25. Mechanical stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:

- a) 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
 - i. 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.
- b) Except with leave of the Commission, the Permit Holder must ensure that:
 - i. any culverts used 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 B182.2, 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.
- c) Except with leave of the Commission, the Permit Holder must ensure that bridges and 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 the table below for the period the Permit Holder anticipates the structure will remain on site, as set out in column 1 in the table below:

Column 1	Column 2
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.

Permitting and Authorizations Page 4 of 6 Telephone: (250) 794-5200 Physical Address: 6534 Airport Road, Fort St. John, BC Facsimile: (250) 794-5379 Mailing Address: Bag 2, Fort St. John, BC V1J 2B0 24 Hour: (250) 794-5200

Application Determination Number: 100100842 Date Issued: January 27, 2017

d) Ice bridges on fish bearing streams may only be constructed where sufficient water depth and stream flows prevent the bridge structure from coming in contact with the stream bottom;

- Water applied to construct an ice bridge on a water body must be sourced in accordance with the Water Sustainability Act unless
 - the water body is a stream with a stream channel width of at least 5 metres and is not designated as a sensitive stream under the *Fish Protection Act*, or has a riparian class of W1, W3, or L1,
 - ii. the water is sourced from the same water body proximal to the location on which the ice bridge is constructed,
 - iii. the water body is not within the boundaries of a public park,
 - iv. pump intakes do not disturb beds of streams or wetlands and are screened with a maximum mesh size and approach velocity in accordance with the Fisheries and Oceans Canada Freshwater Intake End-of-Pipe Fish Screen Guideline, and
 - (a) where the water body is a stream, the flow of water in the stream at the time and location of pumping exceeds 60 litres per second and the instantaneous pumping rate does not exceed 1% of the water flowing in the water body at the time and location the pumping occurs, or
 - (b) where the water body is a lake or pond, the cumulative volume of water withdrawn does not exceed 10 cm of lake or pond depth, calculated as the product of lake or pond surface area x 10 cm;
- f) Records of water withdrawal and corresponding streamflow measurements are maintained by the Permit Holder and provided to the Commission upon request;
- g) Snow fills must consist of clean snow and may only be located on streams that are dry or frozen to the bottom during the period of construction, maintenance and use. Where periodic thaws are anticipated, culverts must be installed to allow meltwater to pass through. Snow fill and any installed culverts must be removed prior to spring snow melt;
- h) Bridge or culvert abutments, footings and scour protection must be located outside the natural stream channel and must not constrict the channel width:
- Equipment used for activities under this approval must not be situated in a stream channel unless it is dry or frozen to the bottom at the time of the activity.
- The Permit Holder must ensure that the activities authorized under this approval do not result in any deleterious materials being deposited into a stream, wetland or lake,
- 27. Except to facilitate a crossing, the permit holder must not undertake construction or significant maintenance activities within 10m of any stream, wetland or lake.

Archaeology

- 28. Archaeology site GbSd-6 must be avoided by construction crews.
- 29. An AIA report must be submitted to the Commission as soon as practicable.
- 30. If artifacts, features, materials or things protected under section 13(2) of the Heritage Conservation Act are identified the permit holder must, unless the permit holder holds a permit under section 12 of the Heritage Conservation Act issued by the 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;
 - immediately notify the Commission and the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations
 - c) refrain from resuming work in the vicinity of the artifacts, features, materials or things except in accordance with an appropriate mitigation plan that has been prepared in accordance with the Heritage Conservation Act and approved by the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations.

Permitting and Authorizations Page 5 of 6 Telephone: (250) 794-5200 Physical Address: 6534 Airport Road, Fort St. John, BC Facsimile: (250) 794-5379 Mailing Address: Bag 2, Fort St. John, BC V1J 2B0 24 Hour: (250) 794-5200

ACTIVITY SPECIFIC DETAILS and CONDITIONS

CHANGES IN AND ABOUT A STREAM

Changes In and About a Stream # 0003536

ACTIVITY DETAILS

Stream Impact No.: 1 Stream/Water Course Name: UNNAMED TRIBUTARY

Location (UTM): Zone 10, Northing 6004781, Easting 393128

Type: Multi-Types

Duration: Temporary

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

Changes In and About a Stream conditions

- 31. Any substance, sediment, debris or material that could adversely impact the stream
 - a) must not be allowed or permitted to enter or leach or seep into the stream from an activity, construction, worksite, machinery or from components used in the construction of any works, or
 - b) must not be placed, used or stored within the stream channel.

ADVISORY GUIDANCE

- 1. Construction Plan 3111-21424 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.
- Appropriate tenure will 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.

All pages included in this permit and any attached plan(s) form an integral part of this permit.

Ashley Istead

Authorized Signatory

Commission Delegated Decision Maker

Copied to:

Land Agent – Roy Northern Land Service Ltd. First Nations – CSTC, NWFN, STFN, YFNB OGC Compliance and Enforcement



Non OGAA v 3.3

January 27, 2017

Coastal GasLink Pipeline Ltd. 450 - 1st Street SW Calgary, AB T2P 5H1

Attention: Coastal GasLink Pipeline Ltd.

RE: Determination of Application Area Number 100100842

Permit Holder: Coastal GasLink Pipeline Ltd.

Date of Issuance: January 27, 2017 Effective Date: January 27, 2017

Application Submitted Date: December 20, 2016 Application Determination Number: 100100842 Approved Disturbance Footprint: 39.82 ha

GENERAL PERMISSIONS, AUTHORIZATIONS and CONDITIONS

PERMISSIONS

Petroleum and Natural Gas Act

1. The BC Oil and Gas Commission (the "Commission") pursuant to section 138 of the *Petroleum and Natural Gas Act* hereby permits the Permit Holder referenced above to construct and operate a related activity(s) as set out in the applicable Permitted Activities, Authorized Activities, and Activity Details tables below for the purposes of carrying out oil and gas activities as defined in the *Oil and Gas Activities Act* (OGAA); subject to the conditions set out herein.

PERMITTED ACTIVITIES

Associated Oil & Gas Activity No.: 00146411, 00146412 Type: Campsite

AUTHORIZED ACTIVITIES

Changes In and About a Stream No.: 0003536 Stream Impact No.: 1

- 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 138(1) of the *Petroleum and Natural Gas Act*, hereby permits the occupation and use of any Crown land located within the activity area.

Application Determination Number: 100100842 Date Issued: January 27, 2017

a) The permission to occupy and use Crown land 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.

- b) The permission to occupy and use Crown land does not entitle the Permit Holder to exclusive possession of the activity area.
- c) The total disturbance within the activity area must not exceed the total approved disturbance footprint as referenced above.

GENERAL AUTHORIZATIONS and CONDITIONS

AUTHORIZATIONS

Water Sustainability Act

- 4. The Commission, pursuant to section 11 of the *Water Sustainability Act*, authorizes the changes in and about a stream, as detailed in the Activity Details table below within the activity area for construction and maintenance activities, unless otherwise restricted by this authorization.
 - a) Instream works must be carried out in accordance with the methods and any mitigations, as specified in the application.

CONDITIONS

Notification

- 5. A notice of construction start must be submitted prior to the commencement of activities under this permit 48 hours before or as per the relevant legislation if longer than 48 hours. Notification must submitted via Kermit for pipelines and facilities. For all other activity types notification must be submitted through OGC.ExternalNotifications@bcogc.ca.
- 6. 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.
- The permit holder must notify Carrier Sekani Tribal Council a minimum of five (5) days prior to commencement of construction activities.
- 8. The permit holder must notify Nadleh Whut'en First Nation a minimum of five (5) days prior to commencement of construction activities.
- 9. The permit holder must notify Yekooche First Nation a minimum of five (5) days prior to commencement of construction activities.
- The permit holder must notify Stellat'en First Nation a minimum of five (5) days prior to commencement of construction activities.

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, sublicence or permit any person to use or occupy the land, other than its employees, contractors, or representatives, without the Commission's written consent.
- 13. The Permit Holder must ensure that 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.

Permitting and Authorizations Physical Address: 6534 Airport Road, Fort St. John, BC Mailing Address: Bag 2, Fort St. John, BC V1J 2B0

Application Determination Number: 100100842 Date Issued: January 27, 2017

14. The Permit Holder must ensure that the activity area is free of garbage, debris and unused equipment.

Environmental

- 15. 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 operating area prior to the construction activities taking place.
- 16. 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.
- 17. The Permit Holder must make reasonable efforts to prevent establishment of invasive plants on the activity area resulting from the carrying out of activities authorized under this approval.
- Following completion of the construction activities authorized herein, the permit holder must, as soon as practicable
 - a) decompact any soils compacted by the activity;
 - b) if natural surface drainage pattern was altered by the carrying out of the activity, the permit holder must restore, to the extent practicable, to the drainage pattern and its condition before the alteration; and
 - re-vegetate any exposed soil on the activity area including, where necessary, using seed or vegetative propagules of an ecologically suitable species that
 - promote the restoration of the wildlife habitat that existed on the area before the oil and gas activity was begun, and
 - (ii) stabilize the soil if it is highly susceptible to erosion.
 - d) Following completion of construction activities authorized herein, any retrievable surface soils removed from the activity area must be redistributed so that the soil structure is restored, to the extent practicable, to its condition before the activity was begun.
- 19. The Permit Holder must ensure that the activities authorized under this approval do not result in any deleterious materials being deposited into a stream, wetland or lake.
- 20. Except to facilitate a crossing, the permit holder must not undertake construction or significant maintenance activities within 10m of any stream, wetland or lake.

Clearing

21. 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.

Water Course Crossings and Works

- 22. Stream, lake and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
- 23. In-stream activities within a fish bearing stream, lake or wetland must occur:
 - a) during the applicable reduced risk work windows as specified in the Region 7 Omineca Reduced Risk Timing Windows for Fish and Wildlife.
 - in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission
 - in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission.
- 24. At any time, the Commission may suspend instream works authorized under this approval. 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.

Permitting and Authorizations Page 3 of 6 Telephone: (250) 794-5200 Physical Address: 6534 Airport Road, Fort St. John, BC Facsimile: (250) 794-5379 Mailing Address: Bag 2, Fort St. John, BC V1J 2B0 24 Hour: (250) 794-5200

Application Determination Number: 100100842 Date Issued: January 27, 2017

25. Mechanical stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:

- a) 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
 - i. 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.
- b) Except with leave of the Commission, the Permit Holder must ensure that:
 - i. any culverts used 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 B182.2, 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.
- c) Except with leave of the Commission, the Permit Holder must ensure that bridges and 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 the table below for the period the Permit Holder anticipates the structure will remain on site, as set out in column 1 in the table below:

Column 1	Column 2
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.

Permitting and Authorizations Page 4 of 6 Telephone: (250) 794-5200 Physical Address: 6534 Airport Road, Fort St. John, BC Facsimile: (250) 794-5379 Mailing Address: Bag 2, Fort St. John, BC V1J 2B0 24 Hour: (250) 794-5200

Application Determination Number: 100100842 Date Issued: January 27, 2017

d) Ice bridges on fish bearing streams may only be constructed where sufficient water depth and stream flows prevent the bridge structure from coming in contact with the stream bottom;

- Water applied to construct an ice bridge on a water body must be sourced in accordance with the Water Sustainability Act unless
 - the water body is a stream with a stream channel width of at least 5 metres and is not designated as a sensitive stream under the *Fish Protection Act*, or has a riparian class of W1, W3, or L1,
 - ii. the water is sourced from the same water body proximal to the location on which the ice bridge is constructed,
 - iii. the water body is not within the boundaries of a public park,
 - iv. pump intakes do not disturb beds of streams or wetlands and are screened with a maximum mesh size and approach velocity in accordance with the Fisheries and Oceans Canada Freshwater Intake End-of-Pipe Fish Screen Guideline, and
 - (a) where the water body is a stream, the flow of water in the stream at the time and location of pumping exceeds 60 litres per second and the instantaneous pumping rate does not exceed 1% of the water flowing in the water body at the time and location the pumping occurs, or
 - (b) where the water body is a lake or pond, the cumulative volume of water withdrawn does not exceed 10 cm of lake or pond depth, calculated as the product of lake or pond surface area x 10 cm;
- f) Records of water withdrawal and corresponding streamflow measurements are maintained by the Permit Holder and provided to the Commission upon request;
- g) Snow fills must consist of clean snow and may only be located on streams that are dry or frozen to the bottom during the period of construction, maintenance and use. Where periodic thaws are anticipated, culverts must be installed to allow meltwater to pass through. Snow fill and any installed culverts must be removed prior to spring snow melt;
- h) Bridge or culvert abutments, footings and scour protection must be located outside the natural stream channel and must not constrict the channel width:
- Equipment used for activities under this approval must not be situated in a stream channel unless it is dry or frozen to the bottom at the time of the activity.
- The Permit Holder must ensure that the activities authorized under this approval do not result in any deleterious materials being deposited into a stream, wetland or lake,
- 27. Except to facilitate a crossing, the permit holder must not undertake construction or significant maintenance activities within 10m of any stream, wetland or lake.

Archaeology

- 28. Archaeology site GbSd-6 must be avoided by construction crews.
- 29. An AIA report must be submitted to the Commission as soon as practicable.
- 30. If artifacts, features, materials or things protected under section 13(2) of the Heritage Conservation Act are identified the permit holder must, unless the permit holder holds a permit under section 12 of the Heritage Conservation Act issued by the 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;
 - immediately notify the Commission and the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations
 - c) refrain from resuming work in the vicinity of the artifacts, features, materials or things except in accordance with an appropriate mitigation plan that has been prepared in accordance with the Heritage Conservation Act and approved by the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations.

Permitting and Authorizations Page 5 of 6 Telephone: (250) 794-5200 Physical Address: 6534 Airport Road, Fort St. John, BC Facsimile: (250) 794-5379 Mailing Address: Bag 2, Fort St. John, BC V1J 2B0 24 Hour: (250) 794-5200

ACTIVITY SPECIFIC DETAILS and CONDITIONS

CHANGES IN AND ABOUT A STREAM

Changes In and About a Stream # 0003536

ACTIVITY DETAILS

Stream Impact No.: 1 Stream/Water Course Name: UNNAMED TRIBUTARY

Location (UTM): Zone 10, Northing 6004781, Easting 393128

Type: Multi-Types

Duration: Temporary

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

Changes In and About a Stream conditions

- 31. Any substance, sediment, debris or material that could adversely impact the stream
 - a) must not be allowed or permitted to enter or leach or seep into the stream from an activity, construction, worksite, machinery or from components used in the construction of any works, or
 - b) must not be placed, used or stored within the stream channel.

ADVISORY GUIDANCE

- 1. Construction Plan 3111-21424 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.
- Appropriate tenure will 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.

All pages included in this permit and any attached plan(s) form an integral part of this permit.

Ashley Istead

Authorized Signatory

Commission Delegated Decision Maker

Copied to:

Land Agent – Roy Northern Land Service Ltd. First Nations – CSTC, NWFN, STFN, YFNB OGC Compliance and Enforcement