



October 31, 2018

LNG Canada Development Inc.
400-4th Street SW
Calgary, Alberta T2P 0J4

Attention: LNG Canada Development Inc.

RE: Determination of Application Area Number 100105923

Permit Holder: LNG Canada Development Inc.
Date of Issuance: October 31, 2018
Effective Date: October 31, 2018
Application Submitted Date: August 3, 2018
Application Determination Number: 100105923

ACTIVITIES APPROVED

Changes In and About a Stream: 0004817
--

GENERAL AUTHORIZATIONS and CONDITIONS

AUTHORIZATIONS

Water Sustainability Act

1. The Commission, pursuant to section 11 of the *Water Sustainability Act*, authorizes the changes in and about a stream, as detailed in the Activities Approved table above, 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

2. A notice of construction start must be submitted, as per the relevant Commission process at the time of submission, at least 48 hours prior to the commencement of activities under this permit.
3. The Permit Holder must notify the Commission and the Haisla Nation a minimum of 48 hours prior to the commencement of each activity conducted under this permit as outlined in the Section 11 Activity Table. Notification to the Commission must be sent to OGC.ExternalNotifications@bcogc.ca.
4. 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.

Clearing

5. 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

6. Works within streams, lakes and wetlands must be constructed in accordance with the methods and any mitigations, as specified in the application.
7. In-stream activities within a fish bearing stream, lake or wetland must occur:
 - b) during the applicable reduced risk work windows as specified in the Region 6 Skeena - Reduced Risk In-stream Work Windows and Measures ; or
 - c) in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission; or
 - d) in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission.
8. 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 the Permit Holder that works may resume.
9. The permit holder must ensure that, to the extent practicable:
 - a) riparian management areas, determined in accordance with 11 below, are developed and maintained on each side of compensatory streams; and
 - b) infrastructure and operating areas associated with the facility, except those intended to facilitate the crossing of a stream, are not located within the riparian management areas.
10. For the purposes of 9 above, classification of compensatory streams, as identified by Fisheries and Oceans Canada and minimum riparian management areas must be determined in accordance with the criteria set out in Part 4, Division 1 of the Environmental Protection and Management Regulation.
11. The permit holder must submit, to the satisfaction of the Commission, a Habitat Effectiveness Monitoring Report, via email to postpermitrequests@bcogc.ca at the end of each monitoring year (Years 1, 2, 3, 5, 7 and 10), that includes the following:
 - a) riparian plant inspection summary;
 - b) fish sampling summary;
 - c) water quality summary;
 - d) physical stability and hydraulic connectivity summary; and
 - e) maintenance and management recommendations, if any.

The permit holder must also submit, to the satisfaction of the Commission, via email to postpermitrequests@bcogc.ca, a summary report developed after year 10 verifying the success of the measures taken.
12. The permit holder must design and install adequate berms and barriers such that deleterious substances are prevented from entering streams.
13. A qualified professional must be on site during all land clearing and infilling of stream operations. This individual must have the authority to stop or modify all construction operations as necessary to minimize impact to adjacent areas of aquatic habitat that are not subject to clearing and infilling.
14. Mechanical stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:
 - a) Only bridges or culverts may be constructed at stream crossings;

- b) 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.
- c) 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
 - ii. Any pipe installed in lieu of a culvert is of at least equivalent standard and strength as any culvert as specified above.
- d) 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 Anticipated period crossing structure will remain on site	Column 2 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.
- e) Bridge or culvert abutments, footings and scour protection must be located outside the natural stream channel and must not constrict the channel width;
- f) 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.

ADVISORY GUIDANCE

1. Construction plan Figures FAA1/2/3-1 and FAA1/2/3-2 dated December 18, 2017 are for the Permit Holder's internal reference only and were not reviewed as a decision tool for this permit, nor does it form an integral part of this permit.
2. For the purpose of interpreting this authorization, the term "Qualified Specialist" means a member in good standing of a profession regulated in British Columbia and who is recognized by that profession as being qualified to work in an area of practice for which an opinion or advice is required. A Qualified Specialist must possess an appropriate combination of formal education, knowledge, skills, and experience to conduct a technically sound and rationally assessment for the area of practice, and be familiar with applicable regulation, standards, policies, protocols and guidelines.
3. Unless a condition or its context suggests otherwise, terms used in this approval have the same meaning as the Environmental Protection and Management Regulation under the *Oil and Gas Activities Act*.

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



Mayka Kennedy, P. Eng
Executive Vice President, Chief Engineer
Commission Delegated Decision Maker

Copied to:

First Nations – Haisla Nation