IN THE MATTER OF
THE *ENVIRONMENTAL ASSESSMENT ACT*, S.B.C. 2018, c. 51 [ACT (2018)]

AND

AN APPLICATION TO EXTEND ENVIRONMENTAL ASSESSMENT CERTIFICATE # E15-02
(CERTIFICATE)

BY
WOODFIBRE LNG LIMITED

FOR THE

WOODFIBRE LNG PROJECT
(PROJECT)

EXTENSION UNDER SECTION 31

WHEREAS:

A. The Certificate issued to Woodfibre LNG Limited. (Certificate Holder) on October 26, 2015 included a deadline of October 26, 2020, by which time the Project is required to be substantially started;

B. The Holder applied to the Chief Executive Assessment Officer for an extension of this date on March 24, 2020, under Section 31(2) of the Act (2018);

C. Under Section 31(4) of the Act (2018), the Chief Executive Assessment Officer may extend the deadline specified in the Certificate, on one occasion only, for not more than five years; and

D. I have considered the Certificate Holder's application, the Environmental Assessment Office's Extension Report, and a submission from Tsleil-Waututh Nation.

NOW THEREFORE:

Pursuant to Section 31(4) of the Act (2018), I extend the date specified in the Certificate by which the Certificate Holder must have substantially started the Project to October 26, 2025.



Elenore Arend
Chief Executive Assessment Officer
Environmental Assessment Office

Issued this 25th day of October, 2020

IN THE MATTER OF THE *ENVIRONMENTAL ASSESSMENT ACT* S.B.C. 2002, c.43 (ACT)

AND

IN THE MATTER OF
ENVIRONMENTAL ASSESSMENT CERTIFICATE #E15-02
HELD BY WOODFIBRE LNG LIMITED

FOR THE
WOODFIBRE LNG PROJECT

AMENDMENT #2 (AMENDMENT)
TO CERTIFICATE #E15-02

WHEREAS:

A. On October 26, 2015, the Minister of Environment and the Minister of Natural Gas Development issued Environmental Assessment Certificate #E15-02 (Certificate) to Woodfibre LNG Limited

B. The Certificate authorized Woodfibre LNG Limited to construct and operate an a liquefied natural gas (LNG) export facility approximately 7 km west-southwest of Squamish, British Columbia

C. On July 12, 2017, the Certificate was amended (Amendment #1) to replace the seawater cooling system with an air cooling system.

D. On April 3, 2019, Woodfibre LNG Limited requested to amend Certificate #E15-02 under Section 19(1) of the Act.

NOW THEREFORE,

I amend the Certificate as follows:

1. The definition of Construction in the Schedule B (Table of Conditions) Definitions is rescinded and replaced with the following text:

   The phase of the Project during which physical activities in connection with site preparation, building or installation of any component of the Project occurs. For purposes of this Schedule B, Construction does not include the following:

   i) Any activities conducted solely for investigative purposes under a valid permit or authorization;
   ii) The demolition and removal or onsite remediation of existing terrestrial structures and facilities associated with the former Woodfibre Pulp Mill;
   iii) The closure of the existing pulp mill landfill; and
   iv) Ongoing maintenance or upgrades to the existing work or infrastructure to address safety, environment or regulatory compliance.

2. The following sentence is added to the first paragraph of Condition 21, Environmental Management Plans, of the Table of Conditions (Schedule B):

   All requirements pertaining to the certificate of compliance or onsite landfill in section 13.2 of the Application are excluded from the construction environmental management plan and operations environmental management plan.

Kevin Jardine
Associate Deputy Minister
Environmental Assessment Office

Issued this 19th day of July, 2019

File: 30050-25/WLNG-19

Reference: 310988

July 12, 2017

SENT VIA EMAIL AND REGULAR MAIL

Byng Giraud
Vice President, Corporate Affairs
Woodfibre LNG Limited
1020 - 1075 West Georgia Street
Vancouver BC V6E 3C9
byng_giraud@wlng.ca

Dear Mr. Giraud:

I am pleased to provide you with a signed original of the Section 19 Order of the *Environment Assessment Act,* for the amendment of the Environmental Assessment Certificate #E15-02 for the Woodfibre LNG Project. Kevin Jardine, Executive Director of the Environmental Assessment Office, signed the Amendment Certificate on July 12, 2017.

Yours truly,



Lindsay Walton
Acting Project Assessment Manager

Enclosure (1)

cc: Quincy Leung, Project Manager, Pacific and Yukon Region
Canadian Environmental Assessment Agency
quincy.leung@ceaa-acee.gc.ca

…2

Lara Taylor, Project Director, Hemmera Envirochem Inc.
ltaylor@hemmera.com

Natalia Timacheva, Health, Security, Safety and Environment Lead
Woodfibre LNG Limited
natalie_timacheva@wlng.ca

IN THE MATTER OF THE *ENVIRONMENTAL ASSESSMENT ACT* S.B.C. 2002, c.43 (ACT)

AND

IN THE MATTER OF
ENVIRONMENTAL ASSESSMENT CERTIFICATE #E15-02
HELD BY WOODFIBRE LNG LIMITED

FOR THE
WOODFIBRE LNG PROJECT

AMENDMENT #1 (AMENDMENT)
TO CERTIFICATE #E15-02

WHEREAS:

A. On October 26, 2015, the Minister of Environment, and the Minister of Natural Gas Development issued Environmental Assessment Certificate #E15-02 (Certificate) to Woodfibre LNG Limited.

B. The Certificate authorized Woodfibre LNG Limited to construct and operate a liquefied natural gas (LNG) export facility approximately seven km west-southwest of Squamish, British Columbia.

C. On January 27, 2017, Woodfibre LNG Limited requested the following changes under Section 19(1) of the Act:

   a. Change the cooling technology from seawater cooling to air cooling;

   b. Use the existing Mill Creek intake, including screenhouse, flume, and penstock, as an alternative to constructing a new intake for water withdrawals; and

   c. Withdraw water from Woodfibre Creek for short-term needs during construction.

D. On July 12, 2017 the Executive Director of the Environmental Assessment Office (EAO) consented to the amendment under Section 19(3) of the Act, including the addition of the following:

   a. New Mill Creek intake withdrawal location be included in the Certified Project Description's Certified Project Area, as per Figure 1 of the Certified Project Description; and

   b. Environmental Management Plan requirements related to Mill Creek as outlined in Section 13.2 of the Application be extended to apply to Woodfibre Creek, to prevent adverse effects to fish and fish habitat, as per Condition 21 of the Table of Conditions.

E. Pursuant to section 4 of the Act, the Executive Director has delegated to the undersigned, powers and duties under the Act, including the power to consider requests for certificate amendments.

NOW THEREFORE,

I amend the Certificate as follows:

1. The following text in Section 2.0, LNG Facility and Supporting Infrastructure, of the Certified Project Description (Schedule A):

   > The seawater cooling system, including an intake and diffuser with a maximum diversion rate of 17,000m^3/h is located within the Certified Project Area (Figure 1).

   is rescinded and replaced with:

   > The air cooling system, with air-cooled heat exchangers mounted above the liquefaction trains, is located within the Certified Project Area (Figure 1).

2. Figure 1 in the Certified Project Description is rescinded and replaced with Figure 1 attached as Appendix A of this amendment.

3. Condition 5, Instream Flow Requirement, of the Table of Conditions (Schedule B), is rescinded and replaced with:

   Instream Flow Requirements

   The Holder must require a Qualified Professional to prepare an instream flow requirements (IFR) report for Mill Creek and Woodfibre Creek, in consultation with FLNR and OGC. The IFR report must be completed at least 60 days prior to the commencement of Construction. The IFR report must include:

   - An interim IFR regime and a procedure for establishing a long-term IFR regime for Mill Creek;
   - An IFR regime for Woodfibre Creek for the duration of anticipated water withdrawal for Woodfibre Creek;
   - A record of the data utilized to support the IFR regimes for Mill Creek and Woodfibre Creek;
   - Monitoring locations, methods and procedures for the IFR regimes for Mill Creek and Woodfibre Creek;
   - The content and frequency for monitoring reports on the implementation of the IFR program and a list of the agencies, including, but not limited to, FLNR, OGC and Aboriginal Groups, that will receive copies of the reports; and

- The process by which the Holder can revise the IFR, including any consultation with OGC, FLNR and EAO that would occur in connection with any such revisions.

The Holder must monitor and report on instream flow in Mill Creek during Construction and Operations phases of the Project provided that water withdrawals continue. The Holder must also monitor and report on instream flow in Woodfibre Creek during the Construction phase or, if water withdrawals from Woodfibre Creek extend beyond the Construction period, for the duration of water withdrawal from Woodfibre Creek. Monitoring and reporting for both Creeks must be done in accordance with the IFR report for Mill Creek and Woodfibre Creek required by this condition. The Holder must obtain approval from the EAO for the IFR report prior to implementing the IFR regimes.

The Holder must provide a copy of the IFR report to Aboriginal Groups within seven days of the report being approved by the EAO.

4. Condition 7, Marine Water Quality – Operations, of the Table of Conditions (Schedule B), is rescinded.

5. The following text in Condition 8, Marine Fish and Fish Habitat, of the Table of Conditions (Schedule B), is rescinded and replaced with:

Marine Fish and Fish Habitat

The Holder must develop, in consultation with DFO and Aboriginal Groups, a marine fish and fish habitat management and monitoring plan that must include at a minimum:

- The means by which the mitigation measures in the Application (Section 22, Table 22-1) and the recommendations in the Herring Survey Summary Report, section 4.0 (May 2015) will be implemented;
- Identification of reduced risk work windows and the work that will occur within these windows;
- Identification of any work that will occur outside of the reduced risk work windows, and measures to mitigate impacts to fish and fish habitat; and
- An adaptive management plan to address the effects of the Project on fish and fish habitat in the event (i) those effects on fish and fish habitat are not mitigated to the extent identified in the Application, or (ii) effects on fish and fish habitat occur that were not predicted in the Application.

A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.

6. The following text is added to Condition 12, Wildlife – Operations, of the Table of Conditions (Schedule B), at the end of the existing bulleted list:

   - Include a monitoring and follow-up program with respect to impacts to wildlife associated with the air cooling system.

7. Condition 21, Environmental Management Plans, of the Table of Conditions (Schedule B), is rescinded and replaced with:

   The Holder must develop, in consultation with FLNR, OGC and Aboriginal Groups, a construction environmental management plan and an operations environmental management plan in accordance with section 13.2 of the Application. All requirements pertaining to Mill Creek in section 13.2 of the Application must also be applied to Woodfibre Creek.

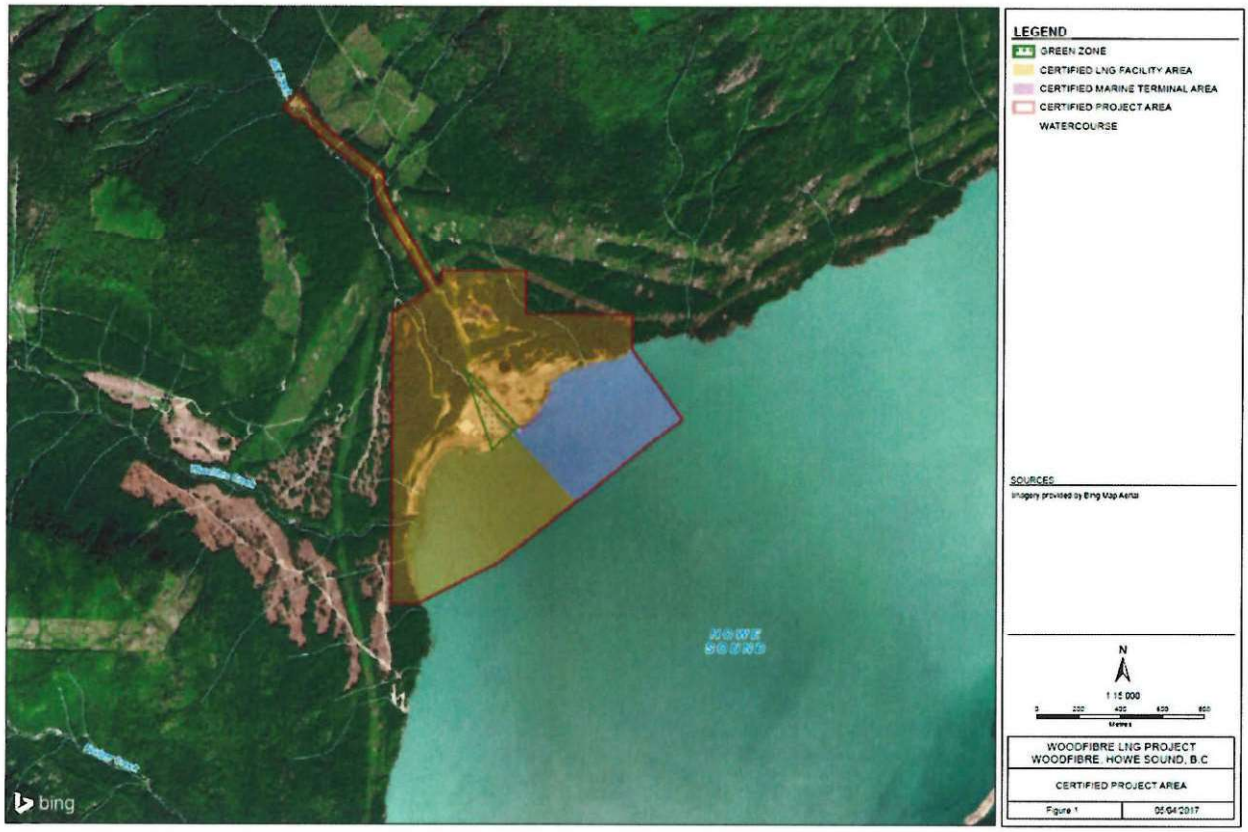
   A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the construction environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must provide the operation environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must develop and implement the plans to the satisfaction of EAO.

Kevin Jardine
Executive Director
Environmental Assessment Office

Issued this 12th day of July, 2017

APPENDIX A

Figure 1: Certified Project Area



In the matter of the
ENVIRONMENTAL ASSESSMENT ACT
S.B.C. 2002, c. 43
(Act)

and

in the matter of an
Application
for an
Environmental Assessment Certificate
(Application)

by

Woodfibre LNG Limited
(Proponent)

for the

Woodfibre LNG Project

ENVIRONMENTAL ASSESSMENT CERTIFICATE # E15-02

Whereas:

A. The Proponent proposes to construct and operate a liquefied natural gas (LNG) export facility at Woodfibre, British Columbia, approximately 7 km west-southwest of the urban centre of Squamish, British Columbia, as described in Schedule A to this Certificate (Project);

B. On November 27, 2013, a Project Lead of the Environmental Assessment Office (EAO) issued an Order under Section 10(1)(c) of the Act stating that an Environmental Assessment Certificate was required for the Project and that the Proponent could not proceed with the Project in the absence of an assessment;

C. The assessment of the Application was conducted from January 13, 2015 to August 19, 2015, and included consultations with First Nations and the public respecting the Application;

D. On August 19, 2015, pursuant to Section 17 of the Act the Executive Director referred the Application, the assessment report and his recommendations to the undersigned;

E. The undersigned have considered the Application, the summary assessment report, assessment report, submissions from Squamish Nation and Tsleil-Waututh Nation and the recommendations of the Executive Director; and

F. Compliance with this Certificate, including its conditions, will be monitored by the staff of EAO, partner agencies and others who have been authorized to inspect under the Act.

Now Therefore,

We issue this Environmental Assessment Certificate to the Proponent for the Project as described in Schedule A, subject to the following conditions and the conditions set out in Schedule B.

Conditions

Definitions:

"Aboriginal Interests" means asserted or determined Aboriginal rights, including title, and treaty rights.

"Holder" means the Proponent or, if this Certificate has been transferred in accordance with section 3, the person to whom the Certificate has been transferred in accordance with section 3.

Compliance Reporting

1. The Holder must submit a report to EAO Compliance and Enforcement staff on the status of compliance with the Conditions of this Certificate, and the conditions in Schedule B, at the following times:

    a. At least 30 days prior to the start of construction;
    b. On or before January 31 in each year after the start of construction;
    c. At least 30 days prior to the start of operations;
    d. On or before January 31 in each year after the start of operations;
    e. At least 30 days prior to the start of decommissioning;
    f. On or before January 31 in each year after the start of decommissioning; and
    g. Within 30 days of completing decommissioning.

    EAO may adjust or extend this reporting requirement by providing written notice to the Holder.

2. The Holder must notify EAO Compliance and Enforcement staff, in writing, three months prior to commencing the construction, operations, and decommissioning phases of the Project.

3. The Holder must provide any document or information requested by EAO, the Ministry of Forests, Lands and Natural Resource Operations, the Ministry of Natural Gas Development, the Ministry of Environment, and the Oil and Gas Commission for the purposes of compliance inspection and verification.

4. Should the primary contact for the Project change, the Holder must notify EAO Compliance and Enforcement staff, in writing, within 30 days and provide the physical address, email address and phone number(s).

Transfer of Certificate

5. (1) Except as provided below, neither this Certificate nor any interest in it may be transferred to any person.

    (2) This Certificate will be effectively transferred if the proposed Holder acknowledges that, upon transfer, it will be responsible for complying with the conditions of the Certificate, and both the proposed Holder and the Holder:

        a. obtain consent for the transfer from the Executive Director,

        b. apply under Section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer, and

c. confirm by written notice to the Executive Director, within 14 days of the completion of all aspects of the transfer transaction other than this notice, that the transfer has been completed.

(3) An interest in this Certificate may be transferred by way of a grant of security to lenders or financers without consent.

(4) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.

(5) If this Certificate is transferred without consent, the new and former Holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

Transfer of Interest in Project

6. (1) Except in connection with the granting of security to Project lenders or financers, prior to the Holder transferring a significant interest in the Project, the Holder and proposed transferee must:

a. obtain consent for the transfer from the Executive Director, and

b. apply under Section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

(2) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.

(3) If a significant interest in the Project is transferred without consent, the Holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

Changes to Schedule A under Section 19 (5) and (6) of the Act

7. (1) The Holder may submit a written request to the Executive Director seeking a determination by the Executive Director that one or more proposed changes to the Project activities, components and/or locations described in Schedule A (Project Activities) are not material in nature.

(2) In determining whether any changes to the Project activities, components and/or locations proposed by the Holder are not material in nature, the Executive Director may consider, among other things:

a. if the change request concerns the location of Project components, the proximity of the proposed location to the location referenced in Schedule A;
b. the purpose of the proposed changes to Project activities described in the change request;
c. whether the proposed activities were considered in any regulatory or approval process that concluded after the date of this Certificate;
d. whether or to what extent the proposed activities or similar activities were considered in the Application and assessment;

e. whether, after any consultation with Aboriginal Groups undertaken by the Holder or any further such consultation directed or undertaken by the Executive Director, the proposed activities may adversely affect Aboriginal Interests that were not (i) considered in the Application and assessment, or (ii) considered in any regulatory or approval processes that concluded after the date of this Certificate; and
f. whether and to what extent the conditions in this Certificate constitute practical means of preventing or reducing any potential adverse effects that will, or are reasonably likely to, result from the proposed activities.

(3) If the Executive Director determines that the proposed changes to the Project activities, components and/or locations are not material in nature, then the Executive Director may make a decision regarding an amendment of Schedule A pursuant to Section 19(3) of the Act.

(4) If the Executive Director determines that the proposed changes to the Project activities, components and/or locations are material in nature, then the Holder must apply to the Executive Director to amend Schedule A pursuant to Section 19(1) of the Act.

Duration of Certificate

8. For the purpose of Section 18(1) of the Act, the deadline is 5 years from the date set out below.



Honourable Mary Polak
Minister of Environment



Honourable Rich Coleman
Minister of Natural Gas Development

Issued this 26th day of October, 2015

WOODFIBRE LNG PROJECT

SCHEDULE A

CERTIFIED PROJECT DESCRIPTION
FOR
AN ENVIRONMENTAL ASSESSMENT CERTIFICATE

1.0 PROJECT OVERVIEW

The Woodfibre LNG Project (Project) is comprised of the following components:

- Liquefied natural gas (LNG) facility and supporting infrastructure;
- Temporary construction-related infrastructure and facilities; and
- Shipping.

These components are described below.

The LNG facility is located in the District of Squamish. Unless otherwise specified, all Project components are located within the areas specified on Figure 1 and Figure 2.

2.0 LNG FACILITY AND SUPPORTING INFRASTRUCTURE

The LNG facility includes: the land-based natural gas processing and liquefaction facility; the floating storage and offloading unit; and supporting infrastructure. The Certified Project Area, as shown on Figure 1, comprises the Certified LNG Facility Area and the Certified Marine Terminal Area.

The components related to the LNG processing are located within the Certified LNG Facility Area on Figure 1. The components related to LNG processing are:

- Control system;
- Natural gas inlet facility and piping;
- Natural gas pre-treatment facilities;
- Up to two natural gas liquefaction trains (also called processing units), comprised of gas treatment and liquefaction facilities with a maximum total combined production of LNG that does not exceed the volume authorized in the Licence to Export LNG issued March 31, 2014 pursuant to Section 117 of the *National Energy Board Act*;
- A condensate storage container with a volume of up to 300 m^3;
- Flare system with a maximum flare stack height of 140 m; and
- Fire control and safety infrastructure.

The Project uses electrical power sourced from BC Hydro.

The seawater cooling system, including an intake and diffuser with a maximum diversion rate of 17,000 m^3/h is located within the Certified Project Area (Figure 1).

The components related to the LNG loading system are located within the Certified Project Area on Figure 1. The components related to the LNG loading system are:

- Supporting utility lines;
- LNG loading lines; and
- Boil off gas vapour return lines.

The components related to the marine terminal are located within the Certified Marine Terminal Area on Figure 1. The components related to the marine terminal are:

- One LNG carrier berth, able to accommodate one LNG carrier; and
- The floating storage and offloading unit consisting of two converted LNG carriers with a total capacity of no greater than 250,000 m^3.

Supporting permanent infrastructure within the Certified Project Area on Figure 1 are:

- Infrastructure to bring electrical power to Certified LNG Facility Area;
- Fresh water supply infrastructure, including intake, piping and storage tank;
- Main administration building(s), control room(s), maintenance building(s), dry storage and chemical building(s), fire house(s), first aid building(s), and safety and guardhouse buildings;
- Facilities to provide site access, including floats, docks, barge ramp, passenger ferry terminal, and helipad;
- Marine offloading facility;
- Shoreline protection berm;
- Site security infrastructure;
- Water and wastewater treatment and discharge facilities;
- Storm water management, treatment and discharge facilities;
- Roads and bridges; and
- Landfill.

A Green Zone will be established in the area shown on Figure 1. Following Construction, this Green Zone will be planted with suitable native vegetation and will not contain any permanent Project buildings. Utilities, including power, process piping, communications cables, and roads and bridges will be within the Green Zone.

3.0 CONSTRUCTION INFRASTRUCTURE, FACILITIES AND ACTIVITIES

Within the Certified Project Area on Figure 1, the Project includes the following construction-related infrastructure and facilities:

- Concrete batch plant(s);
- Temporary buildings to house administration offices, temporary medical facilities, employee canteens and services, field offices, sanitary facilities, and a shipping and receiving warehouse;
- Temporary utilities for construction, including water, power, gas, sanitary wastewater collection and removal systems, and solid waste disposal; and
- Temporary stormwater collection and treatment systems.

The Project includes temporary laydown areas or suitable stockpile sites to stage or store construction materials within the Certified Project Area on Figure 1.

The Project includes limited dredging with total volume no greater than 80,000 m^3 in the Certified Marine Terminal Area on Figure 1.

4.0 SHIPPING

The Project marine access route is the Certified Marine Route shown on Figure 2. This route must be used by all LNG carriers transiting to or from the Project, unless deviation is required due to exceptional circumstances. Any variation from the Certified Marine Route on Figure 2 must be recorded and identified to EAO within 72 hours, unless otherwise directed by EAO.

Figure 1: Certified Project Area

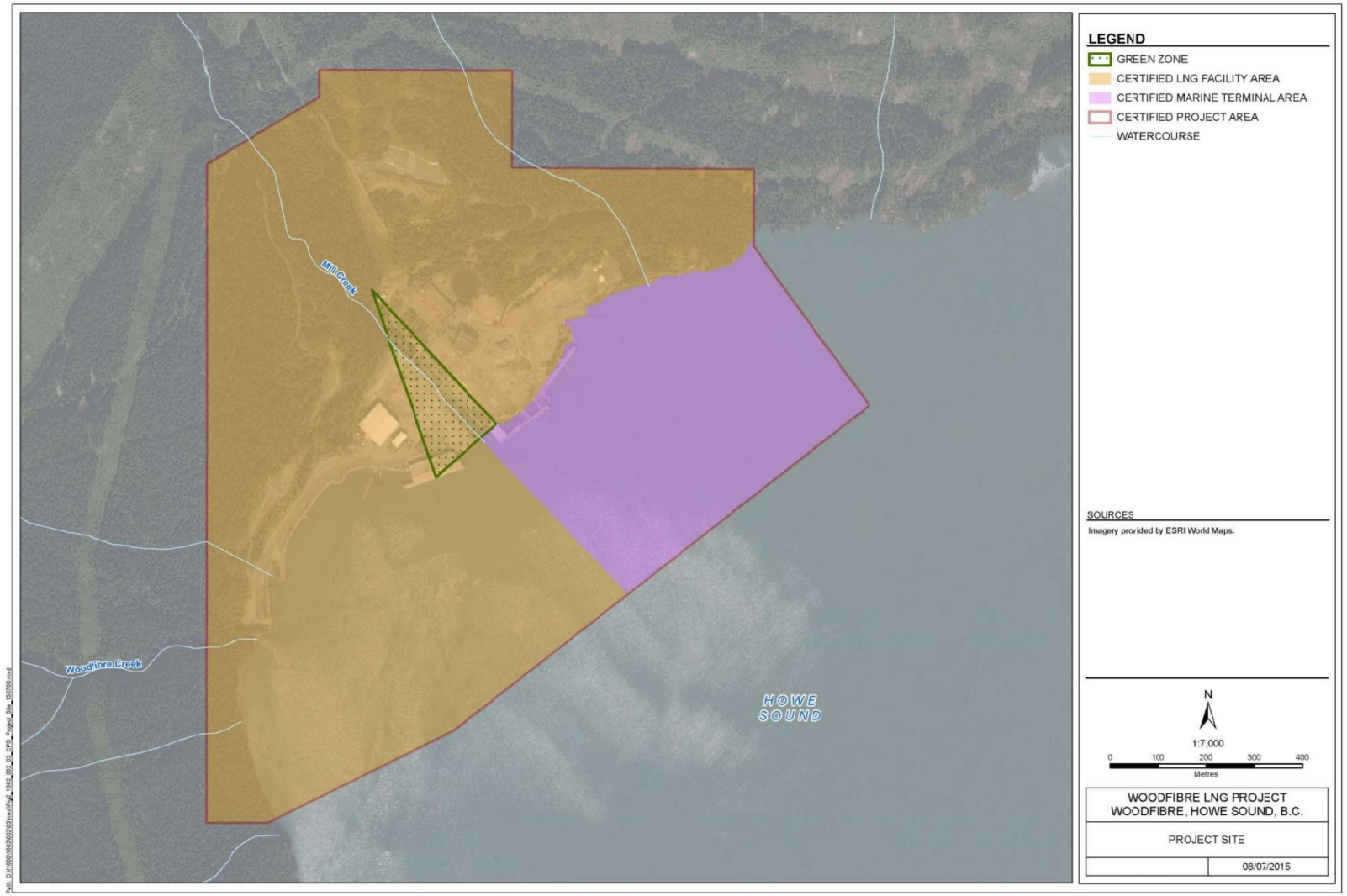
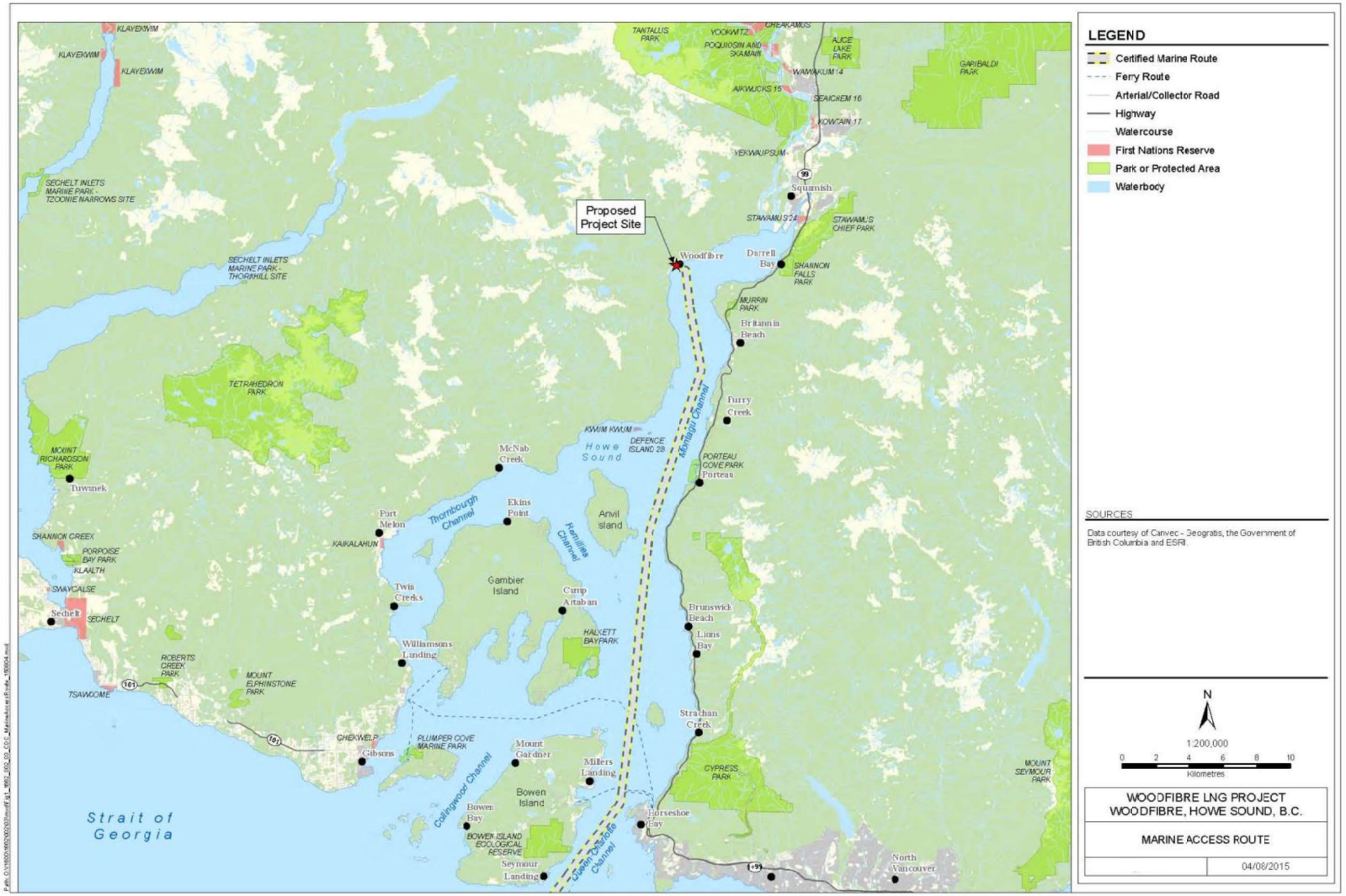


Figure 2: Certified Marine Route



WOODFIBRE LNG PROJECT

(PROJECT)

SCHEDULE B

TABLE OF CONDITIONS
FOR
AN ENVIRONMENTAL ASSESSMENT CERTIFICATE

DEFINITIONS

Aboriginal Groups	Squamish Nation and Tsleil-Waututh Nation.
Application	The Application for an environmental assessment (EA) Certificate submitted by Woodfibre LNG Limited on January 13, 2015.
Construction	The phase of the Project during which physical activities in connection with site preparation, building or installation of any component of the Project occurs. For purposes of these Conditions, Construction does not include any investigative use or testing conducted prior to commencement of site clearing, nor does it include any work related to ongoing maintenance or upgrades to the existing facilities to address safety, environment or regulatory compliance.
Commissioning	The phase of the Project when LNG processing units are brought into operation and tested for safe and reliable operation.
Environmental Monitor	A qualified professional with a minimum of five years' experience monitoring comparable construction projects in British Columbia. The Environmental Monitor is retained by the Holder to observe, record and report on the implementation of the requirements in the EA Certificate.
Operations	The phase of the Project commencing on the date on which at least one train of the Project has completed commissioning and has commenced commercial production of liquefying natural gas.
Qualified Professional	An applied scientist or technologist specializing in an applied science or technology applicable to the duty or function, including, if applicable and without limiting this, archaeology, agrology, biology, chemistry, forestry, engineering, geology or hydrogeology, relevant to the field of practice set out in the condition; and who is registered with the appropriate professional organization, is acting under that organization's code of ethics and is subject to disciplinary action by that organization.

ACRONYMS

BC	British Columbia
CCG	Canadian Coast Guard
CCME	Canadian Council of Ministers of the Environment
DFO	Fisheries and Oceans Canada
DOS	District of Squamish
EA	Environmental Assessment
EAO	Environmental Assessment Office
EC	Environment Canada
FLNR	Ministry of Forests, Lands and Natural Resource Operations
MOE	Ministry of Environment
MOH	Ministry of Health
MOTI	Ministry of Transportation and Infrastructure
OGC	Oil and Gas Commission
TC	Transport Canada
VCH	Vancouver Coastal Health

TABLE OF CONDITIONS

No.	Condition
1	**Environmental Monitor** Prior to commencing Construction, the Holder must retain the services of a Qualified Professional as an Environmental Monitor throughout the Construction phase of the Project. The Holder must give the Environmental Monitor the authority to stop Project work if the Environmental Monitor determines that the Holder has not, or may have not, complied fully with the Certificate requirements and the Environmental Monitor determined that stopping work is necessary to prevent or reduce significant harm. The Environmental Monitor must be retained by the Holder throughout Construction. The Holder must notify EAO of any non-compliance with the Certificate within 72 hours of the Environmental Monitor or the Holder becoming aware of any such non-compliance, or immediately for any non-compliance that may cause significant adverse effects. The Holder must prepare monthly reports on the Holder's compliance with this Certificate. These reports must be retained by the Holder through the Construction phase of the Project and for five years after commencing Operations.
2	**Consultation Regarding Management Plans** Where a condition of this EA Certificate requires the Holder to consult particular party or parties regarding the content of a management plan, the Holder must: a) Provide written notice to each such party that: i) includes a copy of the management plan; ii) invites the party to provide its views on the content of such management plan; and iii) indicates: i. if a timeframe providing such views to the Holder is specified in the relevant condition of this EA Certificate, that the party may provide such views to the Holder within such time frame; or ii. if a timeframe providing such views to the Holder is not specified in the relevant condition of this EA Certificate, specifies a reasonable period during which the party may submit such views to the Holder; b) Undertake a full and impartial consideration of any views and other information provided by a party in accordance with the timelines specified in a notice given pursuant to paragraph (a); c) Provide a written explanation to each party that provided comments in accordance with a notice given pursuant to paragraph (a) as to: i) how the views and information provided by such party to the Holder received have been considered and addressed in a revised version of the management plan; or ii) why such views and information have not been addressed in a revised version of the management plan; d) Maintain a record of consultation with each such party regarding the management plan; and

	e) Provide a copy of such consultation record to the EAO, the relevant party, or both, promptly upon the written request of the EAO or such party.
3	**Satisfaction of Agencies** Where a condition of this EA Certificate requires the Holder develop a management plan or other document to the satisfaction of one or more agencies (which may include the EAO), after submitting a draft of the management plan or other document to the agency or agencies listed in the relevant condition the Holder will not need to make further revisions to, or obtain further approval of, such management plan or other document unless any such listed agency communicates to the Holder that further revisions to such management plan or other document are required. Any such required changes or approval must be pursued by the Holder in accordance with the timelines and in a manner that is acceptable to the agency that made such request. Where a condition of this EA Certificate requires the Holder implement a management plan to the satisfaction of the EAO, the Holder must ensure that it implements such management plan in a manner and on timelines that are acceptable to the EAO. If changes or further approval are requested, the Holder must continue to implement the then current management plan unless the Holder is advised to the contrary by the EAO.
4	**Air Quality** The Holder must develop, in consultation with MOE, MOH, OGC, VCH and Aboriginal Groups, an air quality mitigation and monitoring plan, which must include at a minimum: • Measures to monitor liquefaction facility air emissions and contaminants of concern for sources modelled in the Application; • Procedures for regular reporting of liquefaction facility air emission data gathered, including reporting to the appropriate government agencies, Aboriginal Groups and the public; and • An adaptive management plan to address effects of the Project related to air quality from liquefaction facility emissions in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects related to air quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, MOE, MOH, OGC, VCH and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Commissioning. The Holder must implement the plan to the satisfaction of EAO.
5	**Instream Flow Requirements** The Holder must prepare an instream flow requirements (IFR) report for Mill Creek, in consultation with FLNR, at least 60 days prior to the commencement of Construction. The IFR report must include an interim IFR regime and a procedure for establishing a long-term IFR regime for Mill Creek. The Holder must obtain the approval of both the interim IFR regime and the long-term IFR regime from by FLNR prior to the implementation of that flow regime.

	For the life of the Project, the Holder must monitor in-stream flow on Mill Creek to confirm whether the Holder has complied with the approved interim IFR regime or the approved long-term IFR regime, as determined by FLNR. As a component of the report, the Holder must determine the IFR monitoring location, approach and reporting procedures in consultation with FLNR.
6	**Marine Water Quality – Construction** The Holder must develop, in consultation with MOE, MOH, DFO, OGC, VCH and Aboriginal Groups, a marine water quality management and monitoring plan for Construction. The plan must include at a minimum: • Results of the baseline shellfish and groundfish tissue sampling and the human health risk assessment, including arsenic, cadmium, copper, lead, zinc, methylmercury, tributyltin, polycyclic aromatic hydrocarbons, and polychlorinated dibenzo-p-dioxins and furans; • The means by which the mitigation measures related to Construction in the Application Table 22-1 under the heading "Marine Water Quality" and the recommendations in the Creosote Piles Removal Memo (April 27, 2015) will be implemented; • Measures to monitor onsite sediment and water quality and an approach to communicate any exceedances of CCME *Water Quality and Interim Sediment Quality Guidelines and* BC *Water Quality Guidelines* to the appropriate regulatory authorities; • A post-Construction follow-up program to confirm human health risk assessment, including potential additional tissue sampling to confirm the assessment predictions regarding the bioavailability and bioaccumulation of toxins in marine organisms consumed by humans, if the potential for human health risk is identified in the baseline human health risk assessment; and • An adaptive management plan to address the effects of the Project on water quality in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects on water quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must not commence Construction in the marine environment until the plan is approved by EAO. Once approved, the Holder must also provide the final plan to MOE, MOH, DFO, OGC, VCH and Aboriginal Groups. The Holder must implement the plan to the satisfaction of EAO.
7	**Marine Water Quality – Operations** The Holder must develop, in consultation with MOE, DFO, OGC and Aboriginal Groups, a marine water quality management and monitoring plan for Operations. The plan must include at a minimum: • The means by which the mitigation measures related to Operations in the Application Table 22-1 under the heading "Marine Water Quality" will be implemented;

	• Establishing an initial dilution zone for temperature, chlorine and all other contaminants, of each discharge; • Mitigation measures to ensure that any marine effluent discharge, including from the cooling water system diffuser, will meet CCME *Water Quality and Interim Sediment Quality Guidelines* and BC *Water Quality Guidelines* for the protection of marine life at the edge of the initial dilution zone; • A monitoring and follow-up program with respect to impacts to marine water quality during Operations; and • An adaptive management plan to address the effects of the Project on water quality in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects on water quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, MOE, DFO, EC, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Operations. The Holder must implement the plan to the satisfaction of EAO.

8	**Marine Fish and Fish Habitat**
	
	The Holder must develop, in consultation with DFO and Aboriginal Groups, a marine fish and fish habitat management and monitoring plan that must include at a minimum:
	• The means by which the mitigation measures in the Application (Section 22, Table 22-1) and the recommendations in the Herring Survey Summary Report, section 4.0 (May 2015) will be implemented;
	• Identification of reduced risk work windows and the work that will occur within these windows;
	• Identification of any work that will occur outside of the reduced risk work windows, and measures to mitigate impacts to fish and fish habitat;
	• Measures to monitor the effectiveness of the mitigation measures used for the intake to minimise the risk of killing fish and herring larvae, which must include:
	  ○ A pre-Construction evaluation of fish species, including juvenile herring drift movement near the intake, modelled intake velocity and area of influence around the intake for individual fish species based on maximum burst speeds; and
	  ○ A post-Construction monitoring program to verify actual intake velocity and to evaluate the fate and behaviour of fish species near the intake screen;
	• An adaptive management plan to address the effects of the Project on fish and fish habitat in the event (i) those effects on fish and fish habitat are not mitigated to the extent identified in the Application, or (ii) effects on fish and fish habitat occur that were not predicted in the Application.
	
	The seawater cooling system intake must be designed, built, and operated to meet DFO Best Management Practice for approach velocity and screen size, as outlined in the *Guidelines for Minimizing Entrainment and Impingement of Aquatic Organisms at Marine Intakes in British Columbia* (DFO 1991).
	
	A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no

	less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
9	**Marine Mammals** The Holder must develop, in consultation with DFO, OGC and Aboriginal Groups, a marine mammal management and monitoring plan for Construction that must at a minimum: • Set out the means by which the mitigation measures related to Construction in the Application Table 22-1 under the heading "Marine Mammals" will be implemented; • Identify the geographic areas where, and periods of time when, Construction could cause injury to marine mammals; • Identify the geographic areas where, and periods of time when, Construction could cause behavioural change to marine mammals; • Identify the time periods when elevated marine mammal occupancy is anticipated within the areas of potential injury to marine mammals or areas of potential behavioural change; • Specify the role of a Qualified Professional in observing and reporting marine mammals in the areas of potential injury to marine mammals during Construction; • Specify the Construction activities (e.g. blasting, pile driving) which must stop or not start if a marine mammal is sighted in the areas of potential injury to marine mammals, and not re-start until the marine mammal has moved out of the relevant area, to the satisfaction of the Qualified Professional; and • Specify mitigation measures for Construction underwater noise that will prevent or reduce behavioural change or injury to marine mammals. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must implement the plan to the satisfaction of EAO.
10	**Invasive Plant Management** The Holder must develop, in consultation with FLNR, OGC and Squamish Nation an invasive plant management plan that describes measures to prevent, monitor and control the establishment and spread of invasive plant species in the terrestrial portions of the Certified Project Area during Construction and Operations. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, FLNR, OGC, and Squamish Nation no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
11	**Wildlife – Construction** The Holder must develop, in consultation with EC, FLNR, OGC and Aboriginal Groups, a

	wildlife management and monitoring plan for Construction that must at a minimum: • Set out the means by which the wildlife mitigation measures related to Construction in the Application Table 22-1 (sections 5.12 – 5.14 and 5.17) will be implemented; • Include results of completed marbled murrelet presence and habitat surveys, plans for additional presence surveys, and specify mitigation to avoid or reduce adverse effects of the Project on birds, including marbled murrelets and marbled murrelet habitat, to the satisfaction of a Qualified Professional. • Include mitigation measures to avoid or reduce human-wildlife conflicts and to avoid or reduce direct and indirect wildlife mortality; • Specify the mitigation measures that will be implemented for the protection of wildlife habitat features that are encountered within the terrestrial portions of the Certified Project Area; • Specify mitigation measures to identify and avoid clearing high-value nesting habitat for western screech-owl; • Specify the consideration of migratory bird timing windows when scheduling planned flaring events, where feasible from a technical and safety perspective to the satisfaction of a Qualified Professional, to minimise the risk of mortality and injury to birds during Commissioning; and • Design a monitoring and follow-up program with respect to impacts to wildlife within the terrestrial portions of the Certified Project Area during Construction. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, EC, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO. Marbled murrelet survey results must be provided to EC and FLNR prior to site clearing.
12	**Wildlife – Operations** The Holder must develop a wildlife management and monitoring plan for Operations in consultation with EC, FLNR, OGC and Aboriginal Groups, that must at a minimum: • Set out the means by which the wildlife mitigation measures related to Operations in the Application Table 22-1 (sections 5.12 – 5.14 and 5.17) will be implemented; • Identify mitigation measures and migratory bird timing windows, to reduce the risk of mortality and injury to birds during planned flaring events during Operations, as feasible from a technical and safety perspective to the satisfaction of a Qualified Professional; • Include mitigation measures to avoid or reduce human-wildlife conflicts and to avoid or reduce direct and indirect wildlife mortality; and • Include a monitoring and follow-up program with respect to impacts to wildlife within the terrestrial portions of Certified Project Area during Operations. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, EC, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.

13	**Local Economic Opportunities** The Holder must design and deliver programs to support local and Aboriginal employment and contracting opportunities, skills training and education. The Holder must provide Project information related to job opportunities and subcontracting business opportunities to the affected communities and Chambers of Commerce within the labour market Local Assessment Area identified in the Application, including holding at least one job fair in Squamish at least 30 days prior to Construction. At the time of submitting compliance reports required by this EA Certificate's clause 1, the Holder must report to EAO on the implementation of these programs. The programs must be implemented during Construction.
14	**Community Services and Infrastructure** The Holder must develop, in consultation with Aboriginal Groups, local governments, provincial government infrastructure and service providers, a plan to adaptively manage and monitor effects on services and infrastructure delivered by provincial agencies and local governments. The scope of the plan is for effects that are directly attributable to the Project, and related to Construction. The plan must include the mitigation measures in the Application Table 22-1 under the heading "infrastructure and community services". The plan must include specific actions to address the following: • Communication with potentially affected Aboriginal Groups, local governments and regional districts, and provincial government infrastructure and service providers regarding Project activities and actions; and • An approach for monitoring and reporting on the effectiveness of the mitigation measures set out in the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction. The Holder must not commence Construction until the plan has been approved by EAO, unless otherwise authorized by EAO. Once approved, the Holder must also provide the approved plan to EAO, local governments, and provincial government infrastructure and service providers, and Aboriginal Groups. The Holder is required to implement the plan to the satisfaction of EAO, as of the start of Construction until two years after the completion of Construction, unless otherwise directed by EAO.
15	**Transportation** The Holder must develop, in consultation with MOTI and the DOS, a traffic control management plan and a traffic impact assessment. The traffic impact assessment must be developed in accordance with MOTI's Planning and Designing Access to Developments manual (2009 or as updated from time to time). The traffic impact assessment must include, at a minimum, an analysis of the Project's effects on vehicular traffic and infrastructure and proposed mitigation measures for the

	Highway 99 and Darrell Bay Road intersection. The traffic management plan must at a minimum: • Identify measures to mitigate the impacts of Project-related transportation during Construction on the safety of other users and the efficiency of the transportation network on Highway 99 and the Darrell Bay ferry location; • Include measures for traffic control, public communications, incident management and response, and plan implementation; and • Identify measures to reduce the number of vehicles of Project employees commuting on Highway 99 and at the Darrell Bay ferry location. The Holder must provide the traffic control management plan to EAO, MOTI, and the DOS no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
16	**Marine Transportation – Construction** The Holder must develop, in consultation with TC, DFO, CCG, Pacific Pilotage Authority, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups a marine transport management and monitoring plan for Construction. The plan must identify at a minimum: • The means by which the marine transportation mitigation measures related to Construction in the Application Table 22-1 under the heading "marine transport" (section 7.3, M7.3-1 to M7.3-17) will be implemented; • Construction activities that have the potential to interfere with marine navigation; • Existing and traditional navigational routes, fishing areas, habitat areas, harvesting areas, commercial shipping use, recreational and tourism use, Aboriginal Groups' use, and any associated timing windows; • Actions to inform affected stakeholders and Aboriginal Groups of potential interference with marine navigation as a result of Construction activities; • Methods to coordinate activities with other marine users, including FortisBC; • Methods to minimize displacement of marine-based recreational activities; • Mitigation measures to reduce disruption of marine navigation in Howe Sound as a result of Construction activities; and • Methods to monitor the effects of the Holder's shipping activities on marine users during Construction. The Holder must provide the plan to EAO, TC, CCG, Pacific Pilotage Authority, DFO, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
17	**Marine Transportation – Operations** The Holder must develop, in consultation with TC, CCG, Pacific Pilotage Authority, DFO and Aboriginal Groups, a marine transport management and monitoring plan for Operations. The plan must identify at a minimum: • The means by which the marine transportation mitigation measures related to Operations in the Application Table 22-1 under the heading "marine transportation & use" (section 7.3, M5.19-3, M6.3-1, M7.3-1 – M7.3-17) will be

	implemented; • Operations activities that have the potential to interfere with marine navigation; • Existing and traditional navigational routes, fishing areas, habitat areas, harvesting areas, commercial shipping use, recreational and tourism use, Aboriginal Groups' use, and any associated timing windows; • Methods to inform affected stakeholders and Aboriginal Groups of potential interference with marine navigation as a result of Operations activities; • Mitigation measures to reduce disruption of marine navigation in Howe Sound as a result of Operations activities; and • Practices to reduce disruption and collision risk with marine mammals along the shipping route in Howe Sound; • Methods to inform the public, commercial marine user groups, and Aboriginal Groups about the results of the Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) process respecting the Project; and, • Methods to monitor the effects of the Holder's shipping activities during Operations. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must also provide the final plan to TC, CCG, Pacific Pilotage Authority, DFO, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups. The Holder must implement the plan to the satisfaction of EAO.
18	**Marine Transportation – Wake** The Holder must develop, in consultation with Pacific Pilotage Authority and Aboriginal Groups, a wake verification plan for Operations along the Certified Marine Route. The plan must at a minimum: • Identify monitoring areas within Howe Sound, at shorelines and in the waters of Howe Sound, and periods for monitoring wake; • Describe the methodology for the selection of the focus areas and periods, including how information from marine users and Aboriginal Groups informed their identification and selection; • Specify a methodology for monitoring the wake of the Holder's LNG carriers within the marine environment and at shorelines along the Certified Marine Route, particularly in relation to potential safety hazards to marine and shoreline users; • Specify a process for reporting the results of the wake verification plan; • Include options for complaint reporting, recording and responding to wake interactions between the Holder's LNG carriers and marine and shoreline users; and • Specify an adaptive management plan to address the effects of Project wake on marine and shoreline users in the event (i) those effects on marine and shoreline users are not mitigated to the extent identified in the Application, or (ii) effects on marine and shoreline users occur that were not predicted in the Application. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must not commence Operations until the plan is approved by EAO. Once approved, the Holder must provide the plan to TC, Pacific Pilotage Authority and Aboriginal Groups and potentially affected local

	governments. The Holder must implement the plan to the satisfaction of EAO.
19	**Engagement with Forest Tenure Holders** At least six months prior to the Holder's planned date to commence Construction, the Holder must engage with tenure holders (i) that hold a form of agreement listed in Section 12 of the *Forest Act* as of at least six months prior to the Holder's planned date to commence Construction, and (ii) that are affected by the Project. The purpose of this engagement is to seek opportunities for future ongoing access for forestry operations, while ensuring the safety and security of the site. The Holder must provide a report to FLNR and EAO on the results of such engagement at least 30 days prior to the Holder's planned date to commence Construction.
20	**Visual Quality** The Holder must develop and implement a visual quality management plan in consultation with FLNR, OGC, Aboriginal Groups, Tourism Squamish and the Sea to Sky Gondola that must at a minimum: • Specify mitigation measures to reduce the level of contrast, and provide for additional screening of land-based infrastructure to blend infrastructure with the existing landforms in the context of surrounding landscape features; • Specify mitigation measures to promote screening, including but not limited to, the establishment of new native vegetation; • Specify the selection of natural colours and flat or low glare external finishes on buildings and structures; • Include measures to monitor and maintain natural screening and external finishes, whereby the reduced the level of contrast is maintained for minimal visibility of infrastructure; and • Specify approach to engaging with Aboriginal Groups, Tourism Squamish, and the Sea to Sky Gondola Limited Partnership. The Holder must consult with BC Hydro and FortisBC on the final designs of the Woodfibre sub-station and Eagle Mountain-Woodfibre Pipeline projects, and determine whether additional mitigation measures are required to ensure that cumulative effects to visual quality are no greater than identified in the Application.
21	**Environmental Management Plans** The Holder must develop, in consultation with FLNR, OGC and Aboriginal Groups, a construction environmental management plan and an operations environmental management plan in accordance with section 13.2 of the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the construction environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must provide the operation environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 60 days prior

	to the Holder's planned date to commence Operations. The Holder must develop and implement the plans to the satisfaction of EAO.
22	**Aboriginal Consultation** The Holder must continue to engage Aboriginal Groups for the life of the Project. Engagement must include information sharing and discussion of site-specific mitigation measures, including the development and implementation of plans and the conditions of this Certificate. The Holder must provide, to the satisfaction of EAO, an Aboriginal consultation summary report no later than: • Two years after the commencement of Construction; and • One year after the commencement of Operations. The Holder must share the Aboriginal consultation summary report with Aboriginal Groups for no less than 30 days review and comment prior to providing it to EAO.
23	**Aboriginal Monitoring** The Holder must, through discussion with Aboriginal Groups, seek to provide opportunities for members of Aboriginal Groups to participate in monitoring activities identified in the plans in this Table of Conditions that are occurring within their asserted traditional territory. In the Aboriginal consultation reports required by Condition # 22 to EAO, the Holder must include information regarding the opportunities provided and the participation of members of Aboriginal Groups in monitoring activities.
24	**Public Consultation** The Holder must continue to engage the public for the life of the Project. Consultation and engagement must include information sharing and discussion of site-specific mitigation measures, including the development and implementation of plans and the conditions of this Certificate. The Holder must provide, to the satisfaction of EAO, a public consultation summary report no later than: • Two years after the commencement of Construction; and • One year after the commencement of Operations.
25	**Public Communications** The Holder must establish and maintain for the life of the Project a dedicated publicly available Project website. The website must be used for communicating information on Project status in order to promote public awareness of ongoing activities and Construction schedules, and to ensure general safety in and surrounding the Project area. Information available on the website must be kept up to date to achieve the above goals.

IN THE MATTER OF THE *ENVIRONMENTAL ASSESSMENT ACT* S.B.C. 2002, c.43 (ACT)

AND

IN THE MATTER OF
ENVIRONMENTAL ASSESSMENT CERTIFICATE #E15-02
HELD BY WOODFIBRE LNG LIMITED

FOR THE
WOODFIBRE LNG PROJECT

AMENDMENT #2 (AMENDMENT)
TO CERTIFICATE #E15-02

WHEREAS:

A. On October 26, 2015, the Minister of Environment and the Minister of Natural Gas Development issued Environmental Assessment Certificate #E15-02 (Certificate) to Woodfibre LNG Limited

B. The Certificate authorized Woodfibre LNG Limited to construct and operate an a liquefied natural gas (LNG) export facility approximately 7 km west-southwest of Squamish, British Columbia

C. On July 12, 2017, the Certificate was amended (Amendment #1) to replace the seawater cooling system with an air cooling system.

D. On April 3, 2019, Woodfibre LNG Limited requested to amend Certificate #E15-02 under Section 19(1) of the Act.

NOW THEREFORE,

I amend the Certificate as follows:

1. The definition of Construction in the Schedule B (Table of Conditions) Definitions is rescinded and replaced with the following text:

   The phase of the Project during which physical activities in connection with site preparation, building or installation of any component of the Project occurs. For purposes of this Schedule B, Construction does not include the following:

   i) Any activities conducted solely for investigative purposes under a valid permit or authorization;
   ii) The demolition and removal or onsite remediation of existing terrestrial structures and facilities associated with the former Woodfibre Pulp Mill;
   iii) The closure of the existing pulp mill landfill; and
   iv) Ongoing maintenance or upgrades to the existing work or infrastructure to address safety, environment or regulatory compliance.

2. The following sentence is added to the first paragraph of Condition 21, Environmental Management Plans, of the Table of Conditions (Schedule B):

   All requirements pertaining to the certificate of compliance or onsite landfill in section 13.2 of the Application are excluded from the construction environmental management plan and operations environmental management plan.

Kevin Jardine
Associate Deputy Minister
Environmental Assessment Office

Issued this 19th day of July, 2019

File: 30050-25/WLNG-19

Reference: 310988

July 12, 2017

SENT VIA EMAIL AND REGULAR MAIL

Byng Giraud
Vice President, Corporate Affairs
Woodfibre LNG Limited
1020 - 1075 West Georgia Street
Vancouver BC V6E 3C9
byng_giraud@wlng.ca

Dear Mr. Giraud:

I am pleased to provide you with a signed original of the Section 19 Order of the *Environment Assessment Act,* for the amendment of the Environmental Assessment Certificate #E15-02 for the Woodfibre LNG Project. Kevin Jardine, Executive Director of the Environmental Assessment Office, signed the Amendment Certificate on July 12, 2017.

Yours truly,

Lindsay Walton
Acting Project Assessment Manager

Enclosure (1)

cc: Quincy Leung, Project Manager, Pacific and Yukon Region
Canadian Environmental Assessment Agency
quincy.leung@ceaa-acee.gc.ca

...2

Lara Taylor, Project Director, Hemmera Envirochem Inc.
ltaylor@hemmera.com

Natalia Timacheva, Health, Security, Safety and Environment Lead
Woodfibre LNG Limited
natalie_timacheva@wlng.ca

IN THE MATTER OF THE *ENVIRONMENTAL ASSESSMENT ACT* S.B.C. 2002, c.43 (ACT)

AND

IN THE MATTER OF
ENVIRONMENTAL ASSESSMENT CERTIFICATE #E15-02
HELD BY WOODFIBRE LNG LIMITED

FOR THE
WOODFIBRE LNG PROJECT

AMENDMENT #1 (AMENDMENT)
TO CERTIFICATE #E15-02

WHEREAS:

A. On October 26, 2015, the Minister of Environment, and the Minister of Natural Gas Development issued Environmental Assessment Certificate #E15-02 (Certificate) to Woodfibre LNG Limited.

B. The Certificate authorized Woodfibre LNG Limited to construct and operate a liquefied natural gas (LNG) export facility approximately seven km west-southwest of Squamish, British Columbia.

C. On January 27, 2017, Woodfibre LNG Limited requested the following changes under Section 19(1) of the Act:

   a. Change the cooling technology from seawater cooling to air cooling;

   b. Use the existing Mill Creek intake, including screenhouse, flume, and penstock, as an alternative to constructing a new intake for water withdrawals; and

   c. Withdraw water from Woodfibre Creek for short-term needs during construction.

D. On July 12, 2017 the Executive Director of the Environmental Assessment Office (EAO) consented to the amendment under Section 19(3) of the Act, including the addition of the following:

   a. New Mill Creek intake withdrawal location be included in the Certified Project Description's Certified Project Area, as per Figure 1 of the Certified Project Description; and

   b. Environmental Management Plan requirements related to Mill Creek as outlined in Section 13.2 of the Application be extended to apply to Woodfibre Creek, to prevent adverse effects to fish and fish habitat, as per Condition 21 of the Table of Conditions.

E. Pursuant to section 4 of the Act, the Executive Director has delegated to the undersigned, powers and duties under the Act, including the power to consider requests for certificate amendments.

NOW THEREFORE,

I amend the Certificate as follows:

1. The following text in Section 2.0, LNG Facility and Supporting Infrastructure, of the Certified Project Description (Schedule A):

   > The seawater cooling system, including an intake and diffuser with a maximum diversion rate of 17,000m^3/h is located within the Certified Project Area (Figure 1).

   is rescinded and replaced with:

   > The air cooling system, with air-cooled heat exchangers mounted above the liquefaction trains, is located within the Certified Project Area (Figure 1).

2. Figure 1 in the Certified Project Description is rescinded and replaced with Figure 1 attached as Appendix A of this amendment.

3. Condition 5, Instream Flow Requirement, of the Table of Conditions (Schedule B), is rescinded and replaced with:

   Instream Flow Requirements

   The Holder must require a Qualified Professional to prepare an instream flow requirements (IFR) report for Mill Creek and Woodfibre Creek, in consultation with FLNR and OGC. The IFR report must be completed at least 60 days prior to the commencement of Construction. The IFR report must include:

   - An interim IFR regime and a procedure for establishing a long-term IFR regime for Mill Creek;
   - An IFR regime for Woodfibre Creek for the duration of anticipated water withdrawal for Woodfibre Creek;
   - A record of the data utilized to support the IFR regimes for Mill Creek and Woodfibre Creek;
   - Monitoring locations, methods and procedures for the IFR regimes for Mill Creek and Woodfibre Creek;
   - The content and frequency for monitoring reports on the implementation of the IFR program and a list of the agencies, including, but not limited to, FLNR, OGC and Aboriginal Groups, that will receive copies of the reports; and

- The process by which the Holder can revise the IFR, including any consultation with OGC, FLNR and EAO that would occur in connection with any such revisions.

The Holder must monitor and report on instream flow in Mill Creek during Construction and Operations phases of the Project provided that water withdrawals continue. The Holder must also monitor and report on instream flow in Woodfibre Creek during the Construction phase or, if water withdrawals from Woodfibre Creek extend beyond the Construction period, for the duration of water withdrawal from Woodfibre Creek. Monitoring and reporting for both Creeks must be done in accordance with the IFR report for Mill Creek and Woodfibre Creek required by this condition. The Holder must obtain approval from the EAO for the IFR report prior to implementing the IFR regimes.

The Holder must provide a copy of the IFR report to Aboriginal Groups within seven days of the report being approved by the EAO.

4. Condition 7, Marine Water Quality – Operations, of the Table of Conditions (Schedule B), is rescinded.

5. The following text in Condition 8, Marine Fish and Fish Habitat, of the Table of Conditions (Schedule B), is rescinded and replaced with:

Marine Fish and Fish Habitat

The Holder must develop, in consultation with DFO and Aboriginal Groups, a marine fish and fish habitat management and monitoring plan that must include at a minimum:

- The means by which the mitigation measures in the Application (Section 22, Table 22-1) and the recommendations in the Herring Survey Summary Report, section 4.0 (May 2015) will be implemented;
- Identification of reduced risk work windows and the work that will occur within these windows;
- Identification of any work that will occur outside of the reduced risk work windows, and measures to mitigate impacts to fish and fish habitat; and
- An adaptive management plan to address the effects of the Project on fish and fish habitat in the event (i) those effects on fish and fish habitat are not mitigated to the extent identified in the Application, or (ii) effects on fish and fish habitat occur that were not predicted in the Application.

A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.

6. The following text is added to Condition 12, Wildlife – Operations, of the Table of Conditions (Schedule B), at the end of the existing bulleted list:

   - Include a monitoring and follow-up program with respect to impacts to wildlife associated with the air cooling system.

7. Condition 21, Environmental Management Plans, of the Table of Conditions (Schedule B), is rescinded and replaced with:

   The Holder must develop, in consultation with FLNR, OGC and Aboriginal Groups, a construction environmental management plan and an operations environmental management plan in accordance with section 13.2 of the Application. All requirements pertaining to Mill Creek in section 13.2 of the Application must also be applied to Woodfibre Creek.

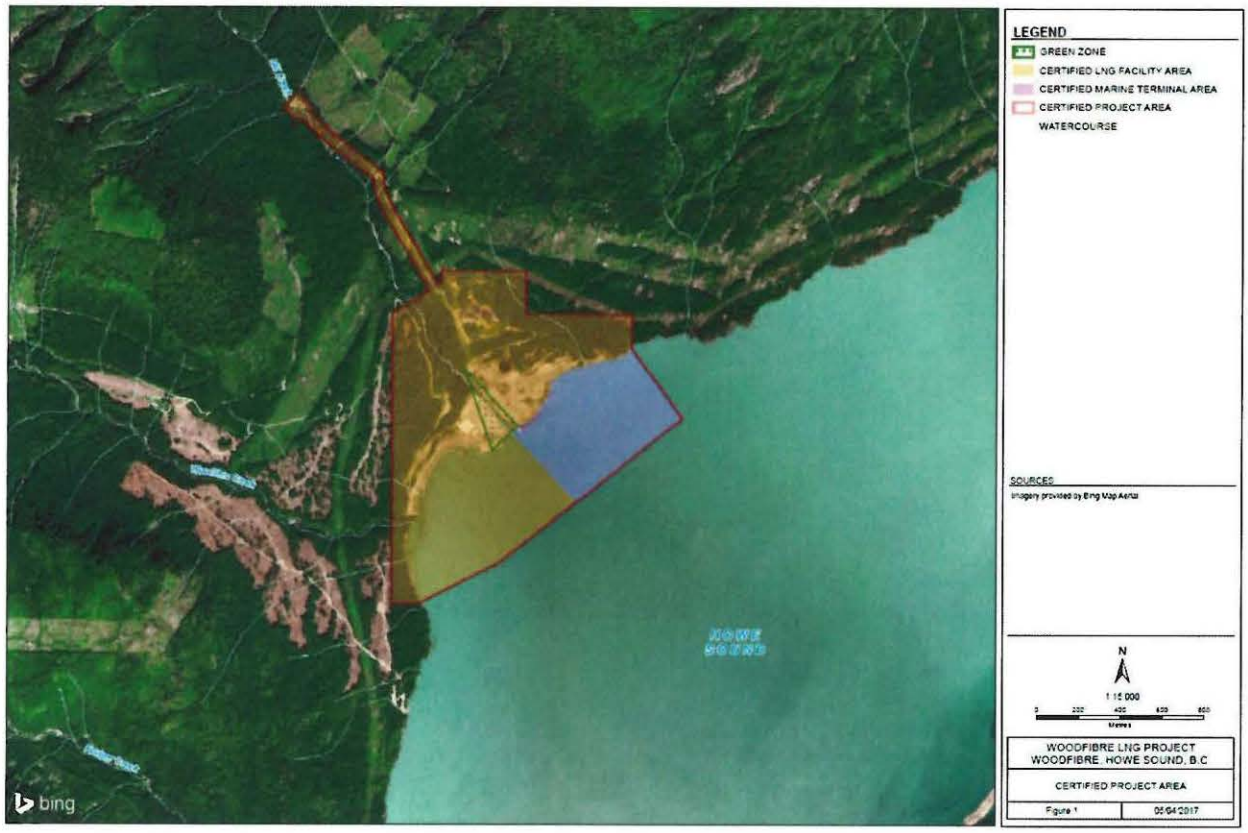
   A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the construction environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must provide the operation environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must develop and implement the plans to the satisfaction of EAO.

Kevin Jardine
Executive Director
Environmental Assessment Office

Issued this 12th day of July, 2017

APPENDIX A

Figure 1: Certified Project Area



In the matter of the
ENVIRONMENTAL ASSESSMENT ACT
S.B.C. 2002, c. 43
(Act)

and

in the matter of an
Application
for an
Environmental Assessment Certificate
(Application)

by

Woodfibre LNG Limited
(Proponent)

for the

Woodfibre LNG Project

ENVIRONMENTAL ASSESSMENT CERTIFICATE # E15-02

Whereas:

A. The Proponent proposes to construct and operate a liquefied natural gas (LNG) export facility at Woodfibre, British Columbia, approximately 7 km west-southwest of the urban centre of Squamish, British Columbia, as described in Schedule A to this Certificate (Project);

B. On November 27, 2013, a Project Lead of the Environmental Assessment Office (EAO) issued an Order under Section 10(1)(c) of the Act stating that an Environmental Assessment Certificate was required for the Project and that the Proponent could not proceed with the Project in the absence of an assessment;

C. The assessment of the Application was conducted from January 13, 2015 to August 19, 2015, and included consultations with First Nations and the public respecting the Application;

D. On August 19, 2015, pursuant to Section 17 of the Act the Executive Director referred the Application, the assessment report and his recommendations to the undersigned;

E. The undersigned have considered the Application, the summary assessment report, assessment report, submissions from Squamish Nation and Tsleil-Waututh Nation and the recommendations of the Executive Director; and

F. Compliance with this Certificate, including its conditions, will be monitored by the staff of EAO, partner agencies and others who have been authorized to inspect under the Act.

Now Therefore,

We issue this Environmental Assessment Certificate to the Proponent for the Project as described in Schedule A, subject to the following conditions and the conditions set out in Schedule B.

Conditions

Definitions:

"Aboriginal Interests" means asserted or determined Aboriginal rights, including title, and treaty rights.

"Holder" means the Proponent or, if this Certificate has been transferred in accordance with section 3, the person to whom the Certificate has been transferred in accordance with section 3.

Compliance Reporting

1. The Holder must submit a report to EAO Compliance and Enforcement staff on the status of compliance with the Conditions of this Certificate, and the conditions in Schedule B, at the following times:

    a. At least 30 days prior to the start of construction;
    b. On or before January 31 in each year after the start of construction;
    c. At least 30 days prior to the start of operations;
    d. On or before January 31 in each year after the start of operations;
    e. At least 30 days prior to the start of decommissioning;
    f. On or before January 31 in each year after the start of decommissioning; and
    g. Within 30 days of completing decommissioning.

    EAO may adjust or extend this reporting requirement by providing written notice to the Holder.

2. The Holder must notify EAO Compliance and Enforcement staff, in writing, three months prior to commencing the construction, operations, and decommissioning phases of the Project.

3. The Holder must provide any document or information requested by EAO, the Ministry of Forests, Lands and Natural Resource Operations, the Ministry of Natural Gas Development, the Ministry of Environment, and the Oil and Gas Commission for the purposes of compliance inspection and verification.

4. Should the primary contact for the Project change, the Holder must notify EAO Compliance and Enforcement staff, in writing, within 30 days and provide the physical address, email address and phone number(s).

Transfer of Certificate

5. (1) Except as provided below, neither this Certificate nor any interest in it may be transferred to any person.

    (2) This Certificate will be effectively transferred if the proposed Holder acknowledges that, upon transfer, it will be responsible for complying with the conditions of the Certificate, and both the proposed Holder and the Holder:

        a. obtain consent for the transfer from the Executive Director,

        b. apply under Section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer, and

c. confirm by written notice to the Executive Director, within 14 days of the completion of all aspects of the transfer transaction other than this notice, that the transfer has been completed.

(3) An interest in this Certificate may be transferred by way of a grant of security to lenders or financers without consent.

(4) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.

(5) If this Certificate is transferred without consent, the new and former Holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

Transfer of Interest in Project

6. (1) Except in connection with the granting of security to Project lenders or financers, prior to the Holder transferring a significant interest in the Project, the Holder and proposed transferee must:

a. obtain consent for the transfer from the Executive Director, and

b. apply under Section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

(2) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.

(3) If a significant interest in the Project is transferred without consent, the Holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

Changes to Schedule A under Section 19 (5) and (6) of the Act

7. (1) The Holder may submit a written request to the Executive Director seeking a determination by the Executive Director that one or more proposed changes to the Project activities, components and/or locations described in Schedule A (Project Activities) are not material in nature.

(2) In determining whether any changes to the Project activities, components and/or locations proposed by the Holder are not material in nature, the Executive Director may consider, among other things:

a. if the change request concerns the location of Project components, the proximity of the proposed location to the location referenced in Schedule A;
b. the purpose of the proposed changes to Project activities described in the change request;
c. whether the proposed activities were considered in any regulatory or approval process that concluded after the date of this Certificate;
d. whether or to what extent the proposed activities or similar activities were considered in the Application and assessment;

e. whether, after any consultation with Aboriginal Groups undertaken by the Holder or any further such consultation directed or undertaken by the Executive Director, the proposed activities may adversely affect Aboriginal Interests that were not (i) considered in the Application and assessment, or (ii) considered in any regulatory or approval processes that concluded after the date of this Certificate; and
f. whether and to what extent the conditions in this Certificate constitute practical means of preventing or reducing any potential adverse effects that will, or are reasonably likely to, result from the proposed activities.

(3) If the Executive Director determines that the proposed changes to the Project activities, components and/or locations are not material in nature, then the Executive Director may make a decision regarding an amendment of Schedule A pursuant to Section 19(3) of the Act.

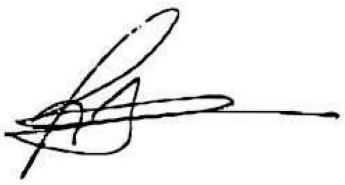
(4) If the Executive Director determines that the proposed changes to the Project activities, components and/or locations are material in nature, then the Holder must apply to the Executive Director to amend Schedule A pursuant to Section 19(1) of the Act.

Duration of Certificate

8. For the purpose of Section 18(1) of the Act, the deadline is 5 years from the date set out below.



Honourable Mary Polak
Minister of Environment



Honourable Rich Coleman
Minister of Natural Gas Development

Issued this 26th day of October, 2015

WOODFIBRE LNG PROJECT

SCHEDULE A

CERTIFIED PROJECT DESCRIPTION
FOR
AN ENVIRONMENTAL ASSESSMENT CERTIFICATE

1.0 PROJECT OVERVIEW

The Woodfibre LNG Project (Project) is comprised of the following components:

- Liquefied natural gas (LNG) facility and supporting infrastructure;
- Temporary construction-related infrastructure and facilities; and
- Shipping.

These components are described below.

The LNG facility is located in the District of Squamish. Unless otherwise specified, all Project components are located within the areas specified on Figure 1 and Figure 2.

2.0 LNG FACILITY AND SUPPORTING INFRASTRUCTURE

The LNG facility includes: the land-based natural gas processing and liquefaction facility; the floating storage and offloading unit; and supporting infrastructure. The Certified Project Area, as shown on Figure 1, comprises the Certified LNG Facility Area and the Certified Marine Terminal Area.

The components related to the LNG processing are located within the Certified LNG Facility Area on Figure 1. The components related to LNG processing are:

- Control system;
- Natural gas inlet facility and piping;
- Natural gas pre-treatment facilities;
- Up to two natural gas liquefaction trains (also called processing units), comprised of gas treatment and liquefaction facilities with a maximum total combined production of LNG that does not exceed the volume authorized in the Licence to Export LNG issued March 31, 2014 pursuant to Section 117 of the *National Energy Board Act*;
- A condensate storage container with a volume of up to 300 m^3;
- Flare system with a maximum flare stack height of 140 m; and
- Fire control and safety infrastructure.

The Project uses electrical power sourced from BC Hydro.

The seawater cooling system, including an intake and diffuser with a maximum diversion rate of 17,000 m^3/h is located within the Certified Project Area (Figure 1).

The components related to the LNG loading system are located within the Certified Project Area on Figure 1. The components related to the LNG loading system are:

- Supporting utility lines;
- LNG loading lines; and
- Boil off gas vapour return lines.

The components related to the marine terminal are located within the Certified Marine Terminal Area on Figure 1. The components related to the marine terminal are:

- One LNG carrier berth, able to accommodate one LNG carrier; and
- The floating storage and offloading unit consisting of two converted LNG carriers with a total capacity of no greater than 250,000 m^3.

Supporting permanent infrastructure within the Certified Project Area on Figure 1 are:

- Infrastructure to bring electrical power to Certified LNG Facility Area;
- Fresh water supply infrastructure, including intake, piping and storage tank;
- Main administration building(s), control room(s), maintenance building(s), dry storage and chemical building(s), fire house(s), first aid building(s), and safety and guardhouse buildings;
- Facilities to provide site access, including floats, docks, barge ramp, passenger ferry terminal, and helipad;
- Marine offloading facility;
- Shoreline protection berm;
- Site security infrastructure;
- Water and wastewater treatment and discharge facilities;
- Storm water management, treatment and discharge facilities;
- Roads and bridges; and
- Landfill.

A Green Zone will be established in the area shown on Figure 1. Following Construction, this Green Zone will be planted with suitable native vegetation and will not contain any permanent Project buildings. Utilities, including power, process piping, communications cables, and roads and bridges will be within the Green Zone.

3.0 CONSTRUCTION INFRASTRUCTURE, FACILITIES AND ACTIVITIES

Within the Certified Project Area on Figure 1, the Project includes the following construction-related infrastructure and facilities:

- Concrete batch plant(s);
- Temporary buildings to house administration offices, temporary medical facilities, employee canteens and services, field offices, sanitary facilities, and a shipping and receiving warehouse;
- Temporary utilities for construction, including water, power, gas, sanitary wastewater collection and removal systems, and solid waste disposal; and
- Temporary stormwater collection and treatment systems.

The Project includes temporary laydown areas or suitable stockpile sites to stage or store construction materials within the Certified Project Area on Figure 1.

The Project includes limited dredging with total volume no greater than 80,000 m^3 in the Certified Marine Terminal Area on Figure 1.

4.0 SHIPPING

The Project marine access route is the Certified Marine Route shown on Figure 2. This route must be used by all LNG carriers transiting to or from the Project, unless deviation is required due to exceptional circumstances. Any variation from the Certified Marine Route on Figure 2 must be recorded and identified to EAO within 72 hours, unless otherwise directed by EAO.

Figure 1: Certified Project Area

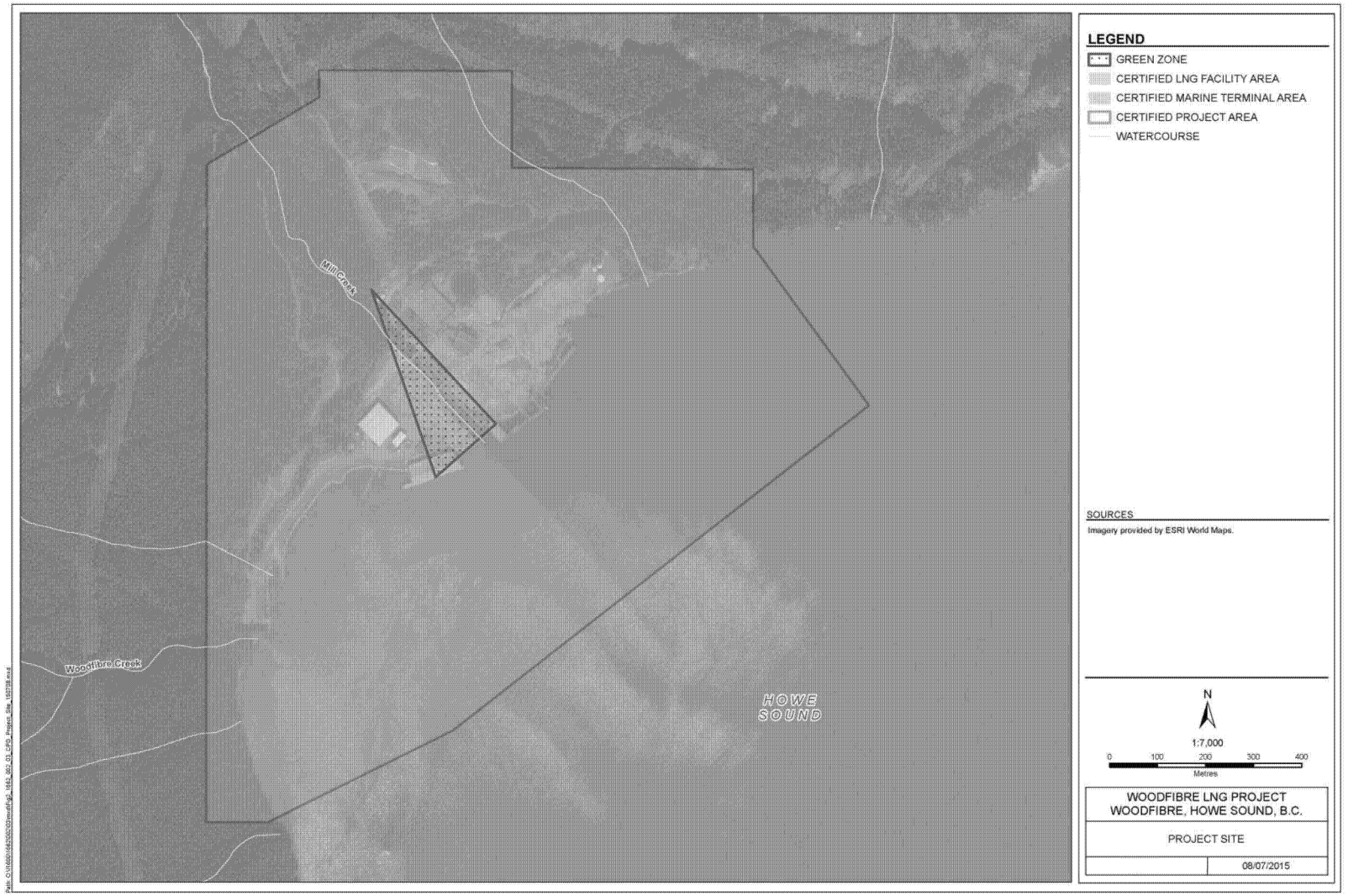
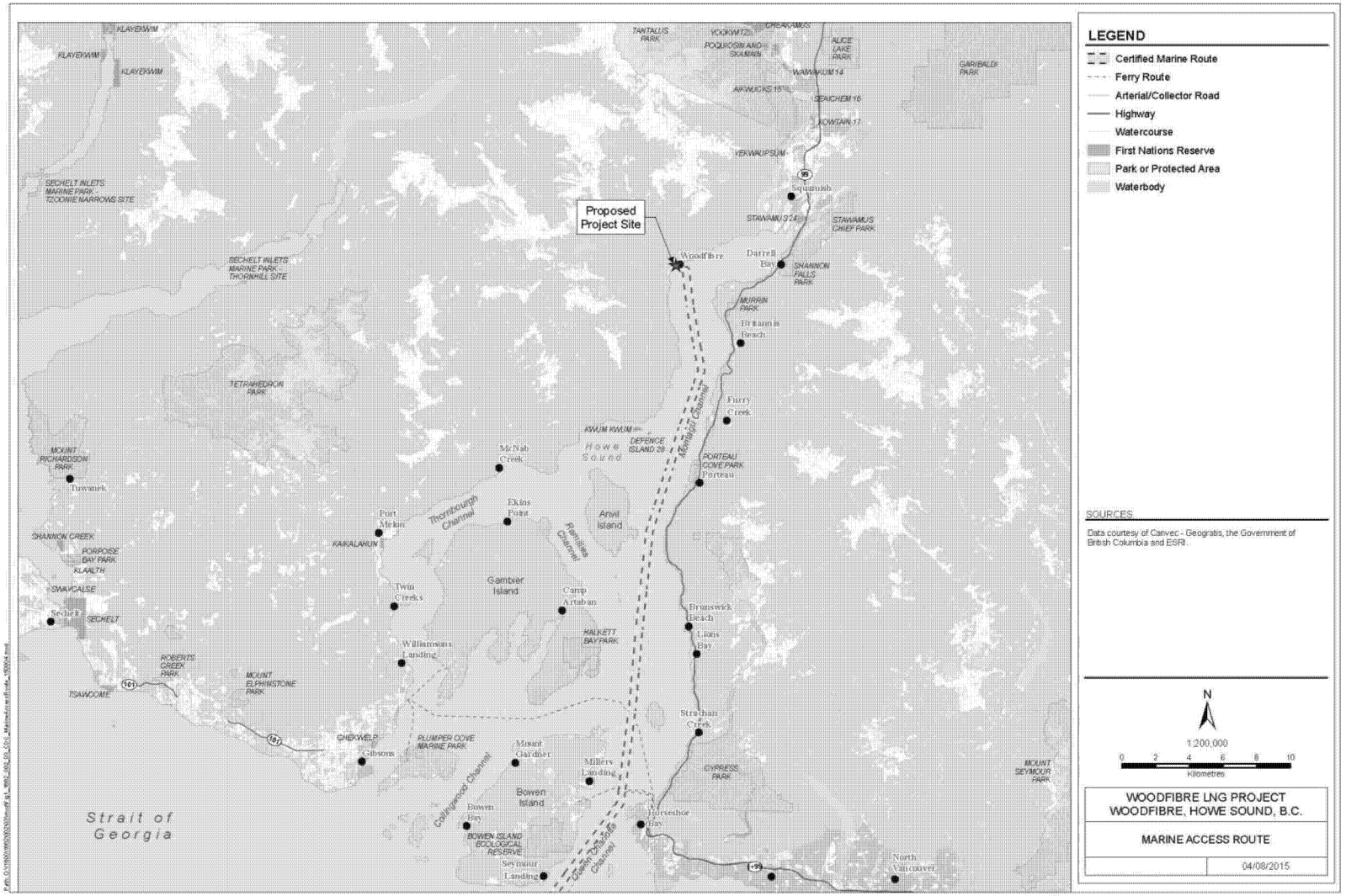


Figure 2: Certified Marine Route



WOODFIBRE LNG PROJECT

(PROJECT)

SCHEDULE B

TABLE OF CONDITIONS
FOR
AN ENVIRONMENTAL ASSESSMENT CERTIFICATE

DEFINITIONS

Aboriginal Groups	Squamish Nation and Tsleil-Waututh Nation.
Application	The Application for an environmental assessment (EA) Certificate submitted by Woodfibre LNG Limited on January 13, 2015.
Construction	The phase of the Project during which physical activities in connection with site preparation, building or installation of any component of the Project occurs. For purposes of these Conditions, Construction does not include any investigative use or testing conducted prior to commencement of site clearing, nor does it include any work related to ongoing maintenance or upgrades to the existing facilities to address safety, environment or regulatory compliance.
Commissioning	The phase of the Project when LNG processing units are brought into operation and tested for safe and reliable operation.
Environmental Monitor	A qualified professional with a minimum of five years' experience monitoring comparable construction projects in British Columbia. The Environmental Monitor is retained by the Holder to observe, record and report on the implementation of the requirements in the EA Certificate.
Operations	The phase of the Project commencing on the date on which at least one train of the Project has completed commissioning and has commenced commercial production of liquefying natural gas.
Qualified Professional	An applied scientist or technologist specializing in an applied science or technology applicable to the duty or function, including, if applicable and without limiting this, archaeology, agrology, biology, chemistry, forestry, engineering, geology or hydrogeology, relevant to the field of practice set out in the condition; and who is registered with the appropriate professional organization, is acting under that organization's code of ethics and is subject to disciplinary action by that organization.

ACRONYMS

BC	British Columbia
CCG	Canadian Coast Guard
CCME	Canadian Council of Ministers of the Environment
DFO	Fisheries and Oceans Canada
DOS	District of Squamish
EA	Environmental Assessment
EAO	Environmental Assessment Office
EC	Environment Canada
FLNR	Ministry of Forests, Lands and Natural Resource Operations
MOE	Ministry of Environment
MOH	Ministry of Health
MOTI	Ministry of Transportation and Infrastructure
OGC	Oil and Gas Commission
TC	Transport Canada
VCH	Vancouver Coastal Health

TABLE OF CONDITIONS

No.	Condition
1	**Environmental Monitor** Prior to commencing Construction, the Holder must retain the services of a Qualified Professional as an Environmental Monitor throughout the Construction phase of the Project. The Holder must give the Environmental Monitor the authority to stop Project work if the Environmental Monitor determines that the Holder has not, or may have not, complied fully with the Certificate requirements and the Environmental Monitor determined that stopping work is necessary to prevent or reduce significant harm. The Environmental Monitor must be retained by the Holder throughout Construction. The Holder must notify EAO of any non-compliance with the Certificate within 72 hours of the Environmental Monitor or the Holder becoming aware of any such non-compliance, or immediately for any non-compliance that may cause significant adverse effects. The Holder must prepare monthly reports on the Holder's compliance with this Certificate. These reports must be retained by the Holder through the Construction phase of the Project and for five years after commencing Operations.
2	**Consultation Regarding Management Plans** Where a condition of this EA Certificate requires the Holder to consult particular party or parties regarding the content of a management plan, the Holder must: a) Provide written notice to each such party that: i) includes a copy of the management plan; ii) invites the party to provide its views on the content of such management plan; and iii) indicates: i. if a timeframe providing such views to the Holder is specified in the relevant condition of this EA Certificate, that the party may provide such views to the Holder within such time frame; or ii. if a timeframe providing such views to the Holder is not specified in the relevant condition of this EA Certificate, specifies a reasonable period during which the party may submit such views to the Holder; b) Undertake a full and impartial consideration of any views and other information provided by a party in accordance with the timelines specified in a notice given pursuant to paragraph (a); c) Provide a written explanation to each party that provided comments in accordance with a notice given pursuant to paragraph (a) as to: i) how the views and information provided by such party to the Holder received have been considered and addressed in a revised version of the management plan; or ii) why such views and information have not been addressed in a revised version of the management plan; d) Maintain a record of consultation with each such party regarding the management plan; and

	e) Provide a copy of such consultation record to the EAO, the relevant party, or both, promptly upon the written request of the EAO or such party.
3	**Satisfaction of Agencies** Where a condition of this EA Certificate requires the Holder develop a management plan or other document to the satisfaction of one or more agencies (which may include the EAO), after submitting a draft of the management plan or other document to the agency or agencies listed in the relevant condition the Holder will not need to make further revisions to, or obtain further approval of, such management plan or other document unless any such listed agency communicates to the Holder that further revisions to such management plan or other document are required. Any such required changes or approval must be pursued by the Holder in accordance with the timelines and in a manner that is acceptable to the agency that made such request. Where a condition of this EA Certificate requires the Holder implement a management plan to the satisfaction of the EAO, the Holder must ensure that it implements such management plan in a manner and on timelines that are acceptable to the EAO. If changes or further approval are requested, the Holder must continue to implement the then current management plan unless the Holder is advised to the contrary by the EAO.
4	**Air Quality** The Holder must develop, in consultation with MOE, MOH, OGC, VCH and Aboriginal Groups, an air quality mitigation and monitoring plan, which must include at a minimum: • Measures to monitor liquefaction facility air emissions and contaminants of concern for sources modelled in the Application; • Procedures for regular reporting of liquefaction facility air emission data gathered, including reporting to the appropriate government agencies, Aboriginal Groups and the public; and • An adaptive management plan to address effects of the Project related to air quality from liquefaction facility emissions in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects related to air quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, MOE, MOH, OGC, VCH and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Commissioning. The Holder must implement the plan to the satisfaction of EAO.
5	**Instream Flow Requirements** The Holder must prepare an instream flow requirements (IFR) report for Mill Creek, in consultation with FLNR, at least 60 days prior to the commencement of Construction. The IFR report must include an interim IFR regime and a procedure for establishing a long-term IFR regime for Mill Creek. The Holder must obtain the approval of both the interim IFR regime and the long-term IFR regime from by FLNR prior to the implementation of that flow regime.

	For the life of the Project, the Holder must monitor in-stream flow on Mill Creek to confirm whether the Holder has complied with the approved interim IFR regime or the approved long-term IFR regime, as determined by FLNR. As a component of the report, the Holder must determine the IFR monitoring location, approach and reporting procedures in consultation with FLNR.
6	**Marine Water Quality – Construction** The Holder must develop, in consultation with MOE, MOH, DFO, OGC, VCH and Aboriginal Groups, a marine water quality management and monitoring plan for Construction. The plan must include at a minimum: • Results of the baseline shellfish and groundfish tissue sampling and the human health risk assessment, including arsenic, cadmium, copper, lead, zinc, methylmercury, tributyltin, polycyclic aromatic hydrocarbons, and polychlorinated dibenzo-p-dioxins and furans; • The means by which the mitigation measures related to Construction in the Application Table 22-1 under the heading "Marine Water Quality" and the recommendations in the Creosote Piles Removal Memo (April 27, 2015) will be implemented; • Measures to monitor onsite sediment and water quality and an approach to communicate any exceedances of CCME *Water Quality and Interim Sediment Quality Guidelines and* BC *Water Quality Guidelines* to the appropriate regulatory authorities; • A post-Construction follow-up program to confirm human health risk assessment, including potential additional tissue sampling to confirm the assessment predictions regarding the bioavailability and bioaccumulation of toxins in marine organisms consumed by humans, if the potential for human health risk is identified in the baseline human health risk assessment; and • An adaptive management plan to address the effects of the Project on water quality in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects on water quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must not commence Construction in the marine environment until the plan is approved by EAO. Once approved, the Holder must also provide the final plan to MOE, MOH, DFO, OGC, VCH and Aboriginal Groups. The Holder must implement the plan to the satisfaction of EAO.
7	**Marine Water Quality – Operations** The Holder must develop, in consultation with MOE, DFO, OGC and Aboriginal Groups, a marine water quality management and monitoring plan for Operations. The plan must include at a minimum: • The means by which the mitigation measures related to Operations in the Application Table 22-1 under the heading "Marine Water Quality" will be implemented;

	• Establishing an initial dilution zone for temperature, chlorine and all other contaminants, of each discharge; • Mitigation measures to ensure that any marine effluent discharge, including from the cooling water system diffuser, will meet CCME *Water Quality and Interim Sediment Quality Guidelines* and BC *Water Quality Guidelines* for the protection of marine life at the edge of the initial dilution zone; • A monitoring and follow-up program with respect to impacts to marine water quality during Operations; and • An adaptive management plan to address the effects of the Project on water quality in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects on water quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, MOE, DFO, EC, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Operations. The Holder must implement the plan to the satisfaction of EAO.
8	**Marine Fish and Fish Habitat** The Holder must develop, in consultation with DFO and Aboriginal Groups, a marine fish and fish habitat management and monitoring plan that must include at a minimum: • The means by which the mitigation measures in the Application (Section 22, Table 22-1) and the recommendations in the Herring Survey Summary Report, section 4.0 (May 2015) will be implemented; • Identification of reduced risk work windows and the work that will occur within these windows; • Identification of any work that will occur outside of the reduced risk work windows, and measures to mitigate impacts to fish and fish habitat; • Measures to monitor the effectiveness of the mitigation measures used for the intake to minimise the risk of killing fish and herring larvae, which must include: o A pre-Construction evaluation of fish species, including juvenile herring drift movement near the intake, modelled intake velocity and area of influence around the intake for individual fish species based on maximum burst speeds; and o A post-Construction monitoring program to verify actual intake velocity and to evaluate the fate and behaviour of fish species near the intake screen; • An adaptive management plan to address the effects of the Project on fish and fish habitat in the event (i) those effects on fish and fish habitat are not mitigated to the extent identified in the Application, or (ii) effects on fish and fish habitat occur that were not predicted in the Application. The seawater cooling system intake must be designed, built, and operated to meet DFO Best Management Practice for approach velocity and screen size, as outlined in the *Guidelines for Minimizing Entrainment and Impingement of Aquatic Organisms at Marine Intakes in British Columbia* (DFO 1991). A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no

	less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
9	**Marine Mammals** The Holder must develop, in consultation with DFO, OGC and Aboriginal Groups, a marine mammal management and monitoring plan for Construction that must at a minimum: • Set out the means by which the mitigation measures related to Construction in the Application Table 22-1 under the heading "Marine Mammals" will be implemented; • Identify the geographic areas where, and periods of time when, Construction could cause injury to marine mammals; • Identify the geographic areas where, and periods of time when, Construction could cause behavioural change to marine mammals; • Identify the time periods when elevated marine mammal occupancy is anticipated within the areas of potential injury to marine mammals or areas of potential behavioural change; • Specify the role of a Qualified Professional in observing and reporting marine mammals in the areas of potential injury to marine mammals during Construction; • Specify the Construction activities (e.g. blasting, pile driving) which must stop or not start if a marine mammal is sighted in the areas of potential injury to marine mammals, and not re-start until the marine mammal has moved out of the relevant area, to the satisfaction of the Qualified Professional; and • Specify mitigation measures for Construction underwater noise that will prevent or reduce behavioural change or injury to marine mammals. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must implement the plan to the satisfaction of EAO.
10	**Invasive Plant Management** The Holder must develop, in consultation with FLNR, OGC and Squamish Nation an invasive plant management plan that describes measures to prevent, monitor and control the establishment and spread of invasive plant species in the terrestrial portions of the Certified Project Area during Construction and Operations. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, FLNR, OGC, and Squamish Nation no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
11	**Wildlife – Construction** The Holder must develop, in consultation with EC, FLNR, OGC and Aboriginal Groups, a

	wildlife management and monitoring plan for Construction that must at a minimum: • Set out the means by which the wildlife mitigation measures related to Construction in the Application Table 22-1 (sections 5.12 – 5.14 and 5.17) will be implemented; • Include results of completed marbled murrelet presence and habitat surveys, plans for additional presence surveys, and specify mitigation to avoid or reduce adverse effects of the Project on birds, including marbled murrelets and marbled murrelet habitat, to the satisfaction of a Qualified Professional. • Include mitigation measures to avoid or reduce human-wildlife conflicts and to avoid or reduce direct and indirect wildlife mortality; • Specify the mitigation measures that will be implemented for the protection of wildlife habitat features that are encountered within the terrestrial portions of the Certified Project Area; • Specify mitigation measures to identify and avoid clearing high-value nesting habitat for western screech-owl; • Specify the consideration of migratory bird timing windows when scheduling planned flaring events, where feasible from a technical and safety perspective to the satisfaction of a Qualified Professional, to minimise the risk of mortality and injury to birds during Commissioning; and • Design a monitoring and follow-up program with respect to impacts to wildlife within the terrestrial portions of the Certified Project Area during Construction. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, EC, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO. Marbled murrelet survey results must be provided to EC and FLNR prior to site clearing.
12	**Wildlife – Operations** The Holder must develop a wildlife management and monitoring plan for Operations in consultation with EC, FLNR, OGC and Aboriginal Groups, that must at a minimum: • Set out the means by which the wildlife mitigation measures related to Operations in the Application Table 22-1 (sections 5.12 – 5.14 and 5.17) will be implemented; • Identify mitigation measures and migratory bird timing windows, to reduce the risk of mortality and injury to birds during planned flaring events during Operations, as feasible from a technical and safety perspective to the satisfaction of a Qualified Professional; • Include mitigation measures to avoid or reduce human-wildlife conflicts and to avoid or reduce direct and indirect wildlife mortality; and • Include a monitoring and follow-up program with respect to impacts to wildlife within the terrestrial portions of Certified Project Area during Operations. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, EC, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.

13	**Local Economic Opportunities** The Holder must design and deliver programs to support local and Aboriginal employment and contracting opportunities, skills training and education. The Holder must provide Project information related to job opportunities and subcontracting business opportunities to the affected communities and Chambers of Commerce within the labour market Local Assessment Area identified in the Application, including holding at least one job fair in Squamish at least 30 days prior to Construction. At the time of submitting compliance reports required by this EA Certificate's clause 1, the Holder must report to EAO on the implementation of these programs. The programs must be implemented during Construction.
14	**Community Services and Infrastructure** The Holder must develop, in consultation with Aboriginal Groups, local governments, provincial government infrastructure and service providers, a plan to adaptively manage and monitor effects on services and infrastructure delivered by provincial agencies and local governments. The scope of the plan is for effects that are directly attributable to the Project, and related to Construction. The plan must include the mitigation measures in the Application Table 22-1 under the heading "infrastructure and community services". The plan must include specific actions to address the following: • Communication with potentially affected Aboriginal Groups, local governments and regional districts, and provincial government infrastructure and service providers regarding Project activities and actions; and • An approach for monitoring and reporting on the effectiveness of the mitigation measures set out in the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction. The Holder must not commence Construction until the plan has been approved by EAO, unless otherwise authorized by EAO. Once approved, the Holder must also provide the approved plan to EAO, local governments, and provincial government infrastructure and service providers, and Aboriginal Groups. The Holder is required to implement the plan to the satisfaction of EAO, as of the start of Construction until two years after the completion of Construction, unless otherwise directed by EAO.
15	**Transportation** The Holder must develop, in consultation with MOTI and the DOS, a traffic control management plan and a traffic impact assessment. The traffic impact assessment must be developed in accordance with MOTI's Planning and Designing Access to Developments manual (2009 or as updated from time to time). The traffic impact assessment must include, at a minimum, an analysis of the Project's effects on vehicular traffic and infrastructure and proposed mitigation measures for the

	Highway 99 and Darrell Bay Road intersection. The traffic management plan must at a minimum: • Identify measures to mitigate the impacts of Project-related transportation during Construction on the safety of other users and the efficiency of the transportation network on Highway 99 and the Darrell Bay ferry location; • Include measures for traffic control, public communications, incident management and response, and plan implementation; and • Identify measures to reduce the number of vehicles of Project employees commuting on Highway 99 and at the Darrell Bay ferry location. The Holder must provide the traffic control management plan to EAO, MOTI, and the DOS no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
16	**Marine Transportation – Construction** The Holder must develop, in consultation with TC, DFO, CCG, Pacific Pilotage Authority, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups a marine transport management and monitoring plan for Construction. The plan must identify at a minimum: • The means by which the marine transportation mitigation measures related to Construction in the Application Table 22-1 under the heading "marine transport" (section 7.3, M7.3-1 to M7.3-17) will be implemented; • Construction activities that have the potential to interfere with marine navigation; • Existing and traditional navigational routes, fishing areas, habitat areas, harvesting areas, commercial shipping use, recreational and tourism use, Aboriginal Groups' use, and any associated timing windows; • Actions to inform affected stakeholders and Aboriginal Groups of potential interference with marine navigation as a result of Construction activities; • Methods to coordinate activities with other marine users, including FortisBC; • Methods to minimize displacement of marine-based recreational activities; • Mitigation measures to reduce disruption of marine navigation in Howe Sound as a result of Construction activities; and • Methods to monitor the effects of the Holder's shipping activities on marine users during Construction. The Holder must provide the plan to EAO, TC, CCG, Pacific Pilotage Authority, DFO, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
17	**Marine Transportation – Operations** The Holder must develop, in consultation with TC, CCG, Pacific Pilotage Authority, DFO and Aboriginal Groups, a marine transport management and monitoring plan for Operations. The plan must identify at a minimum: • The means by which the marine transportation mitigation measures related to Operations in the Application Table 22-1 under the heading "marine transportation & use" (section 7.3, M5.19-3, M6.3-1, M7.3-1 – M7.3-17) will be

	implemented; • Operations activities that have the potential to interfere with marine navigation; • Existing and traditional navigational routes, fishing areas, habitat areas, harvesting areas, commercial shipping use, recreational and tourism use, Aboriginal Groups' use, and any associated timing windows; • Methods to inform affected stakeholders and Aboriginal Groups of potential interference with marine navigation as a result of Operations activities; • Mitigation measures to reduce disruption of marine navigation in Howe Sound as a result of Operations activities; and • Practices to reduce disruption and collision risk with marine mammals along the shipping route in Howe Sound; • Methods to inform the public, commercial marine user groups, and Aboriginal Groups about the results of the Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) process respecting the Project; and, • Methods to monitor the effects of the Holder's shipping activities during Operations. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must also provide the final plan to TC, CCG, Pacific Pilotage Authority, DFO, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups. The Holder must implement the plan to the satisfaction of EAO.
18	**Marine Transportation – Wake** The Holder must develop, in consultation with Pacific Pilotage Authority and Aboriginal Groups, a wake verification plan for Operations along the Certified Marine Route. The plan must at a minimum: • Identify monitoring areas within Howe Sound, at shorelines and in the waters of Howe Sound, and periods for monitoring wake; • Describe the methodology for the selection of the focus areas and periods, including how information from marine users and Aboriginal Groups informed their identification and selection; • Specify a methodology for monitoring the wake of the Holder's LNG carriers within the marine environment and at shorelines along the Certified Marine Route, particularly in relation to potential safety hazards to marine and shoreline users; • Specify a process for reporting the results of the wake verification plan; • Include options for complaint reporting, recording and responding to wake interactions between the Holder's LNG carriers and marine and shoreline users; and • Specify an adaptive management plan to address the effects of Project wake on marine and shoreline users in the event (i) those effects on marine and shoreline users are not mitigated to the extent identified in the Application, or (ii) effects on marine and shoreline users occur that were not predicted in the Application. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must not commence Operations until the plan is approved by EAO. Once approved, the Holder must provide the plan to TC, Pacific Pilotage Authority and Aboriginal Groups and potentially affected local

	governments. The Holder must implement the plan to the satisfaction of EAO.
19	**Engagement with Forest Tenure Holders** At least six months prior to the Holder's planned date to commence Construction, the Holder must engage with tenure holders (i) that hold a form of agreement listed in Section 12 of the *Forest Act* as of at least six months prior to the Holder's planned date to commence Construction, and (ii) that are affected by the Project. The purpose of this engagement is to seek opportunities for future ongoing access for forestry operations, while ensuring the safety and security of the site. The Holder must provide a report to FLNR and EAO on the results of such engagement at least 30 days prior to the Holder's planned date to commence Construction.
20	**Visual Quality** The Holder must develop and implement a visual quality management plan in consultation with FLNR, OGC, Aboriginal Groups, Tourism Squamish and the Sea to Sky Gondola that must at a minimum: • Specify mitigation measures to reduce the level of contrast, and provide for additional screening of land-based infrastructure to blend infrastructure with the existing landforms in the context of surrounding landscape features; • Specify mitigation measures to promote screening, including but not limited to, the establishment of new native vegetation; • Specify the selection of natural colours and flat or low glare external finishes on buildings and structures; • Include measures to monitor and maintain natural screening and external finishes, whereby the reduced the level of contrast is maintained for minimal visibility of infrastructure; and • Specify approach to engaging with Aboriginal Groups, Tourism Squamish, and the Sea to Sky Gondola Limited Partnership. The Holder must consult with BC Hydro and FortisBC on the final designs of the Woodfibre sub-station and Eagle Mountain-Woodfibre Pipeline projects, and determine whether additional mitigation measures are required to ensure that cumulative effects to visual quality are no greater than identified in the Application.
21	**Environmental Management Plans** The Holder must develop, in consultation with FLNR, OGC and Aboriginal Groups, a construction environmental management plan and an operations environmental management plan in accordance with section 13.2 of the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the construction environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must provide the operation environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 60 days prior

	to the Holder's planned date to commence Operations. The Holder must develop and implement the plans to the satisfaction of EAO.
22	**Aboriginal Consultation** The Holder must continue to engage Aboriginal Groups for the life of the Project. Engagement must include information sharing and discussion of site-specific mitigation measures, including the development and implementation of plans and the conditions of this Certificate. The Holder must provide, to the satisfaction of EAO, an Aboriginal consultation summary report no later than: • Two years after the commencement of Construction; and • One year after the commencement of Operations. The Holder must share the Aboriginal consultation summary report with Aboriginal Groups for no less than 30 days review and comment prior to providing it to EAO.
23	**Aboriginal Monitoring** The Holder must, through discussion with Aboriginal Groups, seek to provide opportunities for members of Aboriginal Groups to participate in monitoring activities identified in the plans in this Table of Conditions that are occurring within their asserted traditional territory. In the Aboriginal consultation reports required by Condition # 22 to EAO, the Holder must include information regarding the opportunities provided and the participation of members of Aboriginal Groups in monitoring activities.
24	**Public Consultation** The Holder must continue to engage the public for the life of the Project. Consultation and engagement must include information sharing and discussion of site-specific mitigation measures, including the development and implementation of plans and the conditions of this Certificate. The Holder must provide, to the satisfaction of EAO, a public consultation summary report no later than: • Two years after the commencement of Construction; and • One year after the commencement of Operations.
25	**Public Communications** The Holder must establish and maintain for the life of the Project a dedicated publicly available Project website. The website must be used for communicating information on Project status in order to promote public awareness of ongoing activities and Construction schedules, and to ensure general safety in and surrounding the Project area. Information available on the website must be kept up to date to achieve the above goals.

File: 30050-25/WLNG-19

Reference: 310988

July 12, 2017

SENT VIA EMAIL AND REGULAR MAIL

Byng Giraud
Vice President, Corporate Affairs
Woodfibre LNG Limited
1020 - 1075 West Georgia Street
Vancouver BC V6E 3C9
byng_giraud@wlng.ca

Dear Mr. Giraud:

I am pleased to provide you with a signed original of the Section 19 Order of the *Environment Assessment Act,* for the amendment of the Environmental Assessment Certificate #E15-02 for the Woodfibre LNG Project. Kevin Jardine, Executive Director of the Environmental Assessment Office, signed the Amendment Certificate on July 12, 2017.

Yours truly,



Lindsay Walton
Acting Project Assessment Manager

Enclosure (1)

cc: Quincy Leung, Project Manager, Pacific and Yukon Region
Canadian Environmental Assessment Agency
quincy.leung@ceaa-acee.gc.ca

…2

Lara Taylor, Project Director, Hemmera Envirochem Inc.
ltaylor@hemmera.com

Natalia Timacheva, Health, Security, Safety and Environment Lead
Woodfibre LNG Limited
natalie_timacheva@wlng.ca

IN THE MATTER OF THE *ENVIRONMENTAL ASSESSMENT ACT* S.B.C. 2002, c.43 (ACT)

AND

IN THE MATTER OF
ENVIRONMENTAL ASSESSMENT CERTIFICATE #E15-02
HELD BY WOODFIBRE LNG LIMITED

FOR THE
WOODFIBRE LNG PROJECT

AMENDMENT #1 (AMENDMENT)
TO CERTIFICATE #E15-02

WHEREAS:

A. On October 26, 2015, the Minister of Environment, and the Minister of Natural Gas Development issued Environmental Assessment Certificate #E15-02 (Certificate) to Woodfibre LNG Limited.

B. The Certificate authorized Woodfibre LNG Limited to construct and operate a liquefied natural gas (LNG) export facility approximately seven km west-southwest of Squamish, British Columbia.

C. On January 27, 2017, Woodfibre LNG Limited requested the following changes under Section 19(1) of the Act:

   a. Change the cooling technology from seawater cooling to air cooling;

   b. Use the existing Mill Creek intake, including screenhouse, flume, and penstock, as an alternative to constructing a new intake for water withdrawals; and

   c. Withdraw water from Woodfibre Creek for short-term needs during construction.

D. On July 12, 2017 the Executive Director of the Environmental Assessment Office (EAO) consented to the amendment under Section 19(3) of the Act, including the addition of the following:

   a. New Mill Creek intake withdrawal location be included in the Certified Project Description's Certified Project Area, as per Figure 1 of the Certified Project Description; and

   b. Environmental Management Plan requirements related to Mill Creek as outlined in Section 13.2 of the Application be extended to apply to Woodfibre Creek, to prevent adverse effects to fish and fish habitat, as per Condition 21 of the Table of Conditions.

E. Pursuant to section 4 of the Act, the Executive Director has delegated to the undersigned, powers and duties under the Act, including the power to consider requests for certificate amendments.

NOW THEREFORE,

I amend the Certificate as follows:

1. The following text in Section 2.0, LNG Facility and Supporting Infrastructure, of the Certified Project Description (Schedule A):

   > The seawater cooling system, including an intake and diffuser with a maximum diversion rate of 17,000m^3/h is located within the Certified Project Area (Figure 1).

   is rescinded and replaced with:

   > The air cooling system, with air-cooled heat exchangers mounted above the liquefaction trains, is located within the Certified Project Area (Figure 1).

2. Figure 1 in the Certified Project Description is rescinded and replaced with Figure 1 attached as Appendix A of this amendment.

3. Condition 5, Instream Flow Requirement, of the Table of Conditions (Schedule B), is rescinded and replaced with:

   Instream Flow Requirements

   The Holder must require a Qualified Professional to prepare an instream flow requirements (IFR) report for Mill Creek and Woodfibre Creek, in consultation with FLNR and OGC. The IFR report must be completed at least 60 days prior to the commencement of Construction. The IFR report must include:

   - An interim IFR regime and a procedure for establishing a long-term IFR regime for Mill Creek;
   - An IFR regime for Woodfibre Creek for the duration of anticipated water withdrawal for Woodfibre Creek;
   - A record of the data utilized to support the IFR regimes for Mill Creek and Woodfibre Creek;
   - Monitoring locations, methods and procedures for the IFR regimes for Mill Creek and Woodfibre Creek;
   - The content and frequency for monitoring reports on the implementation of the IFR program and a list of the agencies, including, but not limited to, FLNR, OGC and Aboriginal Groups, that will receive copies of the reports; and

- The process by which the Holder can revise the IFR, including any consultation with OGC, FLNR and EAO that would occur in connection with any such revisions.

The Holder must monitor and report on instream flow in Mill Creek during Construction and Operations phases of the Project provided that water withdrawals continue. The Holder must also monitor and report on instream flow in Woodfibre Creek during the Construction phase or, if water withdrawals from Woodfibre Creek extend beyond the Construction period, for the duration of water withdrawal from Woodfibre Creek. Monitoring and reporting for both Creeks must be done in accordance with the IFR report for Mill Creek and Woodfibre Creek required by this condition. The Holder must obtain approval from the EAO for the IFR report prior to implementing the IFR regimes.

The Holder must provide a copy of the IFR report to Aboriginal Groups within seven days of the report being approved by the EAO.

4. Condition 7, Marine Water Quality – Operations, of the Table of Conditions (Schedule B), is rescinded.

5. The following text in Condition 8, Marine Fish and Fish Habitat, of the Table of Conditions (Schedule B), is rescinded and replaced with:

Marine Fish and Fish Habitat

The Holder must develop, in consultation with DFO and Aboriginal Groups, a marine fish and fish habitat management and monitoring plan that must include at a minimum:

- The means by which the mitigation measures in the Application (Section 22, Table 22-1) and the recommendations in the Herring Survey Summary Report, section 4.0 (May 2015) will be implemented;
- Identification of reduced risk work windows and the work that will occur within these windows;
- Identification of any work that will occur outside of the reduced risk work windows, and measures to mitigate impacts to fish and fish habitat; and
- An adaptive management plan to address the effects of the Project on fish and fish habitat in the event (i) those effects on fish and fish habitat are not mitigated to the extent identified in the Application, or (ii) effects on fish and fish habitat occur that were not predicted in the Application.

A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.

6. The following text is added to Condition 12, Wildlife – Operations, of the Table of Conditions (Schedule B), at the end of the existing bulleted list:

   - Include a monitoring and follow-up program with respect to impacts to wildlife associated with the air cooling system.

7. Condition 21, Environmental Management Plans, of the Table of Conditions (Schedule B), is rescinded and replaced with:

   The Holder must develop, in consultation with FLNR, OGC and Aboriginal Groups, a construction environmental management plan and an operations environmental management plan in accordance with section 13.2 of the Application. All requirements pertaining to Mill Creek in section 13.2 of the Application must also be applied to Woodfibre Creek.

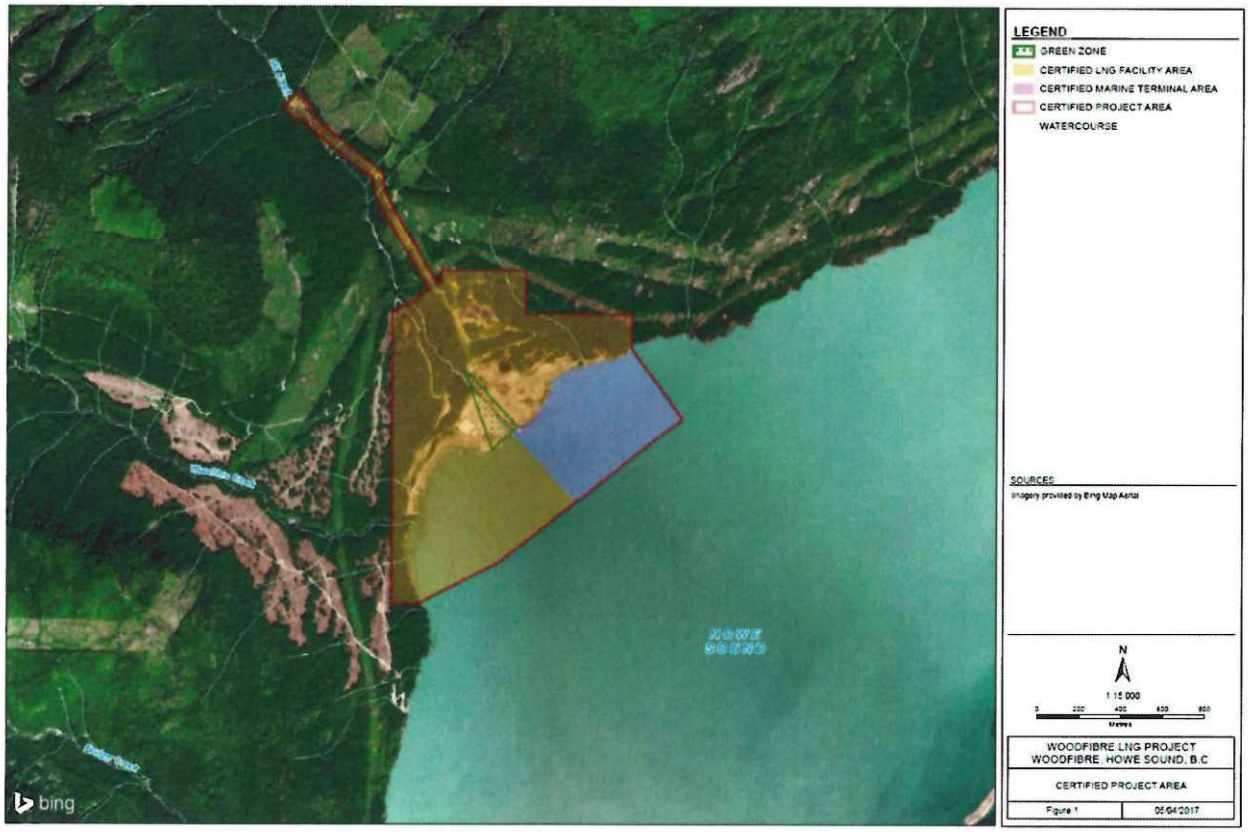
   A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the construction environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must provide the operation environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must develop and implement the plans to the satisfaction of EAO.

Kevin Jardine
Executive Director
Environmental Assessment Office

Issued this 12th day of July, 2017

APPENDIX A

Figure 1: Certified Project Area



In the matter of the
ENVIRONMENTAL ASSESSMENT ACT
S.B.C. 2002, c. 43
(Act)

and

in the matter of an
Application
for an
Environmental Assessment Certificate
(Application)

by

Woodfibre LNG Limited
(Proponent)

for the

Woodfibre LNG Project

ENVIRONMENTAL ASSESSMENT CERTIFICATE # E15-02

Whereas:

A. The Proponent proposes to construct and operate a liquefied natural gas (LNG) export facility at Woodfibre, British Columbia, approximately 7 km west-southwest of the urban centre of Squamish, British Columbia, as described in Schedule A to this Certificate (Project);

B. On November 27, 2013, a Project Lead of the Environmental Assessment Office (EAO) issued an Order under Section 10(1)(c) of the Act stating that an Environmental Assessment Certificate was required for the Project and that the Proponent could not proceed with the Project in the absence of an assessment;

C. The assessment of the Application was conducted from January 13, 2015 to August 19, 2015, and included consultations with First Nations and the public respecting the Application;

D. On August 19, 2015, pursuant to Section 17 of the Act the Executive Director referred the Application, the assessment report and his recommendations to the undersigned;

E. The undersigned have considered the Application, the summary assessment report, assessment report, submissions from Squamish Nation and Tsleil-Waututh Nation and the recommendations of the Executive Director; and

F. Compliance with this Certificate, including its conditions, will be monitored by the staff of EAO, partner agencies and others who have been authorized to inspect under the Act.

Now Therefore,

We issue this Environmental Assessment Certificate to the Proponent for the Project as described in Schedule A, subject to the following conditions and the conditions set out in Schedule B.

Conditions

Definitions:

"Aboriginal Interests" means asserted or determined Aboriginal rights, including title, and treaty rights.

"Holder" means the Proponent or, if this Certificate has been transferred in accordance with section 3, the person to whom the Certificate has been transferred in accordance with section 3.

Compliance Reporting

1. The Holder must submit a report to EAO Compliance and Enforcement staff on the status of compliance with the Conditions of this Certificate, and the conditions in Schedule B, at the following times:

    a. At least 30 days prior to the start of construction;
    b. On or before January 31 in each year after the start of construction;
    c. At least 30 days prior to the start of operations;
    d. On or before January 31 in each year after the start of operations;
    e. At least 30 days prior to the start of decommissioning;
    f. On or before January 31 in each year after the start of decommissioning; and
    g. Within 30 days of completing decommissioning.

    EAO may adjust or extend this reporting requirement by providing written notice to the Holder.

2. The Holder must notify EAO Compliance and Enforcement staff, in writing, three months prior to commencing the construction, operations, and decommissioning phases of the Project.

3. The Holder must provide any document or information requested by EAO, the Ministry of Forests, Lands and Natural Resource Operations, the Ministry of Natural Gas Development, the Ministry of Environment, and the Oil and Gas Commission for the purposes of compliance inspection and verification.

4. Should the primary contact for the Project change, the Holder must notify EAO Compliance and Enforcement staff, in writing, within 30 days and provide the physical address, email address and phone number(s).

Transfer of Certificate

5. (1) Except as provided below, neither this Certificate nor any interest in it may be transferred to any person.

    (2) This Certificate will be effectively transferred if the proposed Holder acknowledges that, upon transfer, it will be responsible for complying with the conditions of the Certificate, and both the proposed Holder and the Holder:

        a. obtain consent for the transfer from the Executive Director,

        b. apply under Section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer, and

c. confirm by written notice to the Executive Director, within 14 days of the completion of all aspects of the transfer transaction other than this notice, that the transfer has been completed.

(3) An interest in this Certificate may be transferred by way of a grant of security to lenders or financers without consent.

(4) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.

(5) If this Certificate is transferred without consent, the new and former Holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

Transfer of Interest in Project

6. (1) Except in connection with the granting of security to Project lenders or financers, prior to the Holder transferring a significant interest in the Project, the Holder and proposed transferee must:

a. obtain consent for the transfer from the Executive Director, and

b. apply under Section 19 of the Act for such amendments to this Certificate, if any, as the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

(2) A transfer to a trustee in bankruptcy, by a receiver or a trustee in bankruptcy pursuant to a court approved sale or as part of a court approved arrangement under the *Company Creditors Arrangement Act* may occur without consent.

(3) If a significant interest in the Project is transferred without consent, the Holder must notify the Executive Director within 30 days of the transfer and apply within the time specified by the Executive Director for any amendments to this Certificate that the Executive Director deems necessary to ensure compliance with and enforceability of this Certificate and to otherwise reflect the proposed transfer.

Changes to Schedule A under Section 19 (5) and (6) of the Act

7. (1) The Holder may submit a written request to the Executive Director seeking a determination by the Executive Director that one or more proposed changes to the Project activities, components and/or locations described in Schedule A (Project Activities) are not material in nature.

(2) In determining whether any changes to the Project activities, components and/or locations proposed by the Holder are not material in nature, the Executive Director may consider, among other things:

a. if the change request concerns the location of Project components, the proximity of the proposed location to the location referenced in Schedule A;
b. the purpose of the proposed changes to Project activities described in the change request;
c. whether the proposed activities were considered in any regulatory or approval process that concluded after the date of this Certificate;
d. whether or to what extent the proposed activities or similar activities were considered in the Application and assessment;

e. whether, after any consultation with Aboriginal Groups undertaken by the Holder or any further such consultation directed or undertaken by the Executive Director, the proposed activities may adversely affect Aboriginal Interests that were not (i) considered in the Application and assessment, or (ii) considered in any regulatory or approval processes that concluded after the date of this Certificate; and
f. whether and to what extent the conditions in this Certificate constitute practical means of preventing or reducing any potential adverse effects that will, or are reasonably likely to, result from the proposed activities.

(3) If the Executive Director determines that the proposed changes to the Project activities, components and/or locations are not material in nature, then the Executive Director may make a decision regarding an amendment of Schedule A pursuant to Section 19(3) of the Act.

(4) If the Executive Director determines that the proposed changes to the Project activities, components and/or locations are material in nature, then the Holder must apply to the Executive Director to amend Schedule A pursuant to Section 19(1) of the Act.

Duration of Certificate

8. For the purpose of Section 18(1) of the Act, the deadline is 5 years from the date set out below.



Honourable Mary Polak
Minister of Environment



Honourable Rich Coleman
Minister of Natural Gas Development

Issued this 26th day of October, 2015

WOODFIBRE LNG PROJECT

SCHEDULE A

CERTIFIED PROJECT DESCRIPTION
FOR
AN ENVIRONMENTAL ASSESSMENT CERTIFICATE

1.0 PROJECT OVERVIEW

The Woodfibre LNG Project (Project) is comprised of the following components:

- Liquefied natural gas (LNG) facility and supporting infrastructure;
- Temporary construction-related infrastructure and facilities; and
- Shipping.

These components are described below.

The LNG facility is located in the District of Squamish. Unless otherwise specified, all Project components are located within the areas specified on Figure 1 and Figure 2.

2.0 LNG FACILITY AND SUPPORTING INFRASTRUCTURE

The LNG facility includes: the land-based natural gas processing and liquefaction facility; the floating storage and offloading unit; and supporting infrastructure. The Certified Project Area, as shown on Figure 1, comprises the Certified LNG Facility Area and the Certified Marine Terminal Area.

The components related to the LNG processing are located within the Certified LNG Facility Area on Figure 1. The components related to LNG processing are:

- Control system;
- Natural gas inlet facility and piping;
- Natural gas pre-treatment facilities;
- Up to two natural gas liquefaction trains (also called processing units), comprised of gas treatment and liquefaction facilities with a maximum total combined production of LNG that does not exceed the volume authorized in the Licence to Export LNG issued March 31, 2014 pursuant to Section 117 of the *National Energy Board Act*;
- A condensate storage container with a volume of up to 300 m^3;
- Flare system with a maximum flare stack height of 140 m; and
- Fire control and safety infrastructure.

The Project uses electrical power sourced from BC Hydro.

The seawater cooling system, including an intake and diffuser with a maximum diversion rate of 17,000 m^3/h is located within the Certified Project Area (Figure 1).

The components related to the LNG loading system are located within the Certified Project Area on Figure 1. The components related to the LNG loading system are:

- Supporting utility lines;
- LNG loading lines; and
- Boil off gas vapour return lines.

The components related to the marine terminal are located within the Certified Marine Terminal Area on Figure 1. The components related to the marine terminal are:

- One LNG carrier berth, able to accommodate one LNG carrier; and
- The floating storage and offloading unit consisting of two converted LNG carriers with a total capacity of no greater than 250,000 m^3.

Supporting permanent infrastructure within the Certified Project Area on Figure 1 are:

- Infrastructure to bring electrical power to Certified LNG Facility Area;
- Fresh water supply infrastructure, including intake, piping and storage tank;
- Main administration building(s), control room(s), maintenance building(s), dry storage and chemical building(s), fire house(s), first aid building(s), and safety and guardhouse buildings;
- Facilities to provide site access, including floats, docks, barge ramp, passenger ferry terminal, and helipad;
- Marine offloading facility;
- Shoreline protection berm;
- Site security infrastructure;
- Water and wastewater treatment and discharge facilities;
- Storm water management, treatment and discharge facilities;
- Roads and bridges; and
- Landfill.

A Green Zone will be established in the area shown on Figure 1. Following Construction, this Green Zone will be planted with suitable native vegetation and will not contain any permanent Project buildings. Utilities, including power, process piping, communications cables, and roads and bridges will be within the Green Zone.

3.0 CONSTRUCTION INFRASTRUCTURE, FACILITIES AND ACTIVITIES

Within the Certified Project Area on Figure 1, the Project includes the following construction-related infrastructure and facilities:

- Concrete batch plant(s);
- Temporary buildings to house administration offices, temporary medical facilities, employee canteens and services, field offices, sanitary facilities, and a shipping and receiving warehouse;
- Temporary utilities for construction, including water, power, gas, sanitary wastewater collection and removal systems, and solid waste disposal; and
- Temporary stormwater collection and treatment systems.

The Project includes temporary laydown areas or suitable stockpile sites to stage or store construction materials within the Certified Project Area on Figure 1.

The Project includes limited dredging with total volume no greater than 80,000 m^3 in the Certified Marine Terminal Area on Figure 1.

4.0 SHIPPING

The Project marine access route is the Certified Marine Route shown on Figure 2. This route must be used by all LNG carriers transiting to or from the Project, unless deviation is required due to exceptional circumstances. Any variation from the Certified Marine Route on Figure 2 must be recorded and identified to EAO within 72 hours, unless otherwise directed by EAO.

Figure 1: Certified Project Area

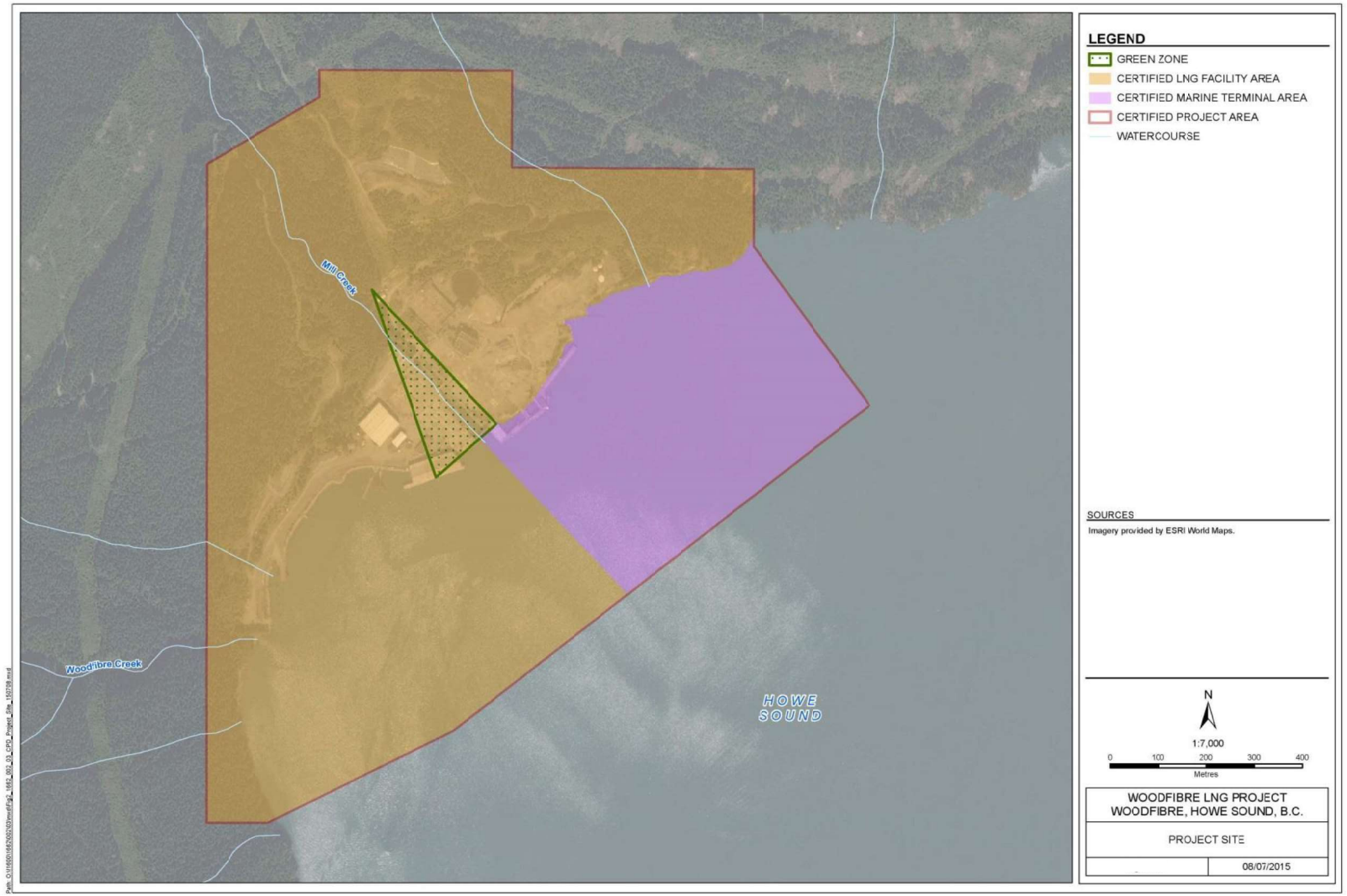
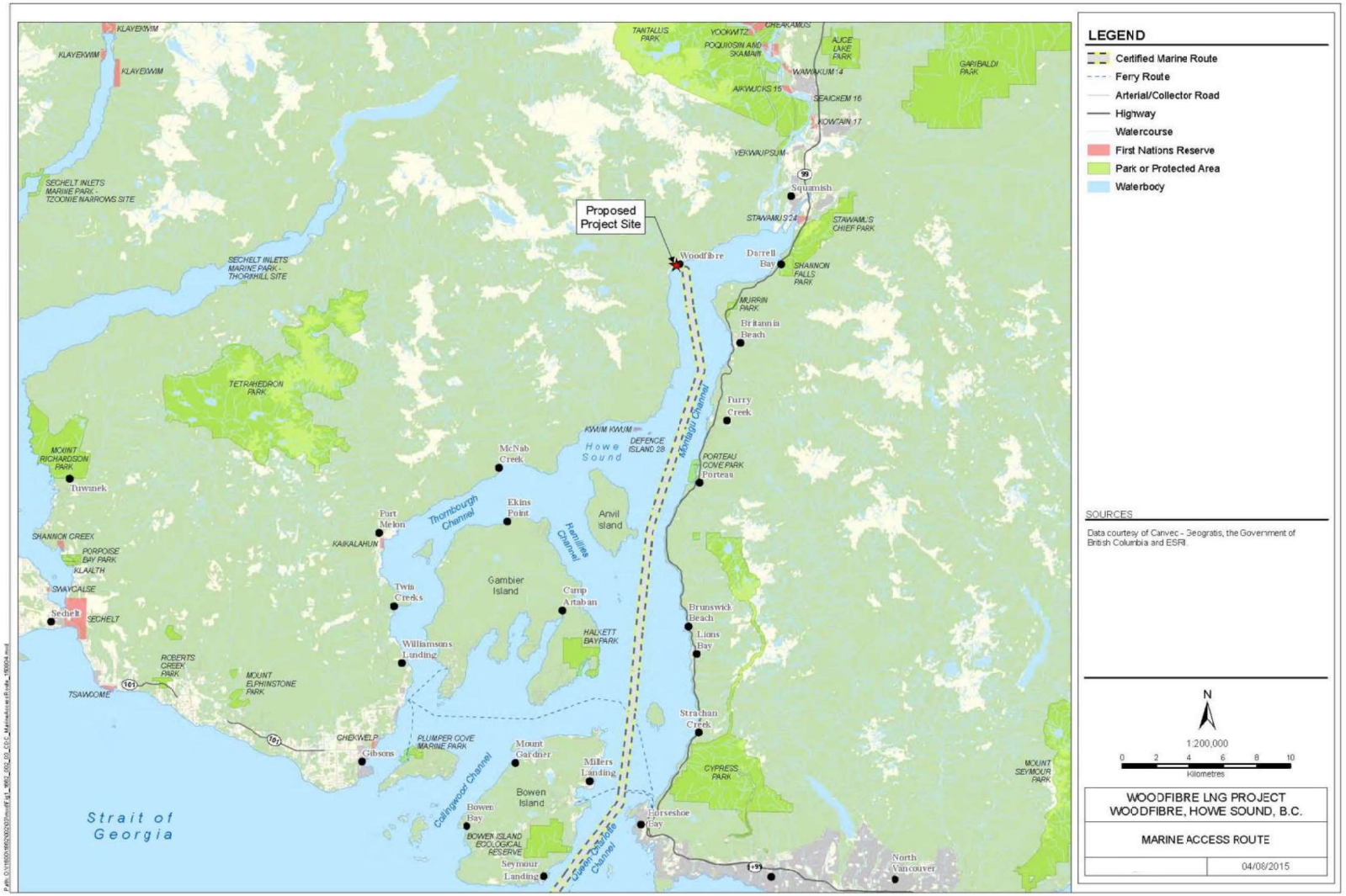


Figure 2: Certified Marine Route



WOODFIBRE LNG PROJECT

(PROJECT)

SCHEDULE B

TABLE OF CONDITIONS
FOR
AN ENVIRONMENTAL ASSESSMENT CERTIFICATE

DEFINITIONS

Aboriginal Groups	Squamish Nation and Tsleil-Waututh Nation.
Application	The Application for an environmental assessment (EA) Certificate submitted by Woodfibre LNG Limited on January 13, 2015.
Construction	The phase of the Project during which physical activities in connection with site preparation, building or installation of any component of the Project occurs. For purposes of these Conditions, Construction does not include any investigative use or testing conducted prior to commencement of site clearing, nor does it include any work related to ongoing maintenance or upgrades to the existing facilities to address safety, environment or regulatory compliance.
Commissioning	The phase of the Project when LNG processing units are brought into operation and tested for safe and reliable operation.
Environmental Monitor	A qualified professional with a minimum of five years' experience monitoring comparable construction projects in British Columbia. The Environmental Monitor is retained by the Holder to observe, record and report on the implementation of the requirements in the EA Certificate.
Operations	The phase of the Project commencing on the date on which at least one train of the Project has completed commissioning and has commenced commercial production of liquefying natural gas.
Qualified Professional	An applied scientist or technologist specializing in an applied science or technology applicable to the duty or function, including, if applicable and without limiting this, archaeology, agrology, biology, chemistry, forestry, engineering, geology or hydrogeology, relevant to the field of practice set out in the condition; and who is registered with the appropriate professional organization, is acting under that organization's code of ethics and is subject to disciplinary action by that organization.

ACRONYMS

BC	British Columbia
CCG	Canadian Coast Guard
CCME	Canadian Council of Ministers of the Environment
DFO	Fisheries and Oceans Canada
DOS	District of Squamish
EA	Environmental Assessment
EAO	Environmental Assessment Office
EC	Environment Canada
FLNR	Ministry of Forests, Lands and Natural Resource Operations
MOE	Ministry of Environment
MOH	Ministry of Health
MOTI	Ministry of Transportation and Infrastructure
OGC	Oil and Gas Commission
TC	Transport Canada
VCH	Vancouver Coastal Health

TABLE OF CONDITIONS

No.	Condition
1	**Environmental Monitor** Prior to commencing Construction, the Holder must retain the services of a Qualified Professional as an Environmental Monitor throughout the Construction phase of the Project. The Holder must give the Environmental Monitor the authority to stop Project work if the Environmental Monitor determines that the Holder has not, or may have not, complied fully with the Certificate requirements and the Environmental Monitor determined that stopping work is necessary to prevent or reduce significant harm. The Environmental Monitor must be retained by the Holder throughout Construction. The Holder must notify EAO of any non-compliance with the Certificate within 72 hours of the Environmental Monitor or the Holder becoming aware of any such non-compliance, or immediately for any non-compliance that may cause significant adverse effects. The Holder must prepare monthly reports on the Holder's compliance with this Certificate. These reports must be retained by the Holder through the Construction phase of the Project and for five years after commencing Operations.
2	**Consultation Regarding Management Plans** Where a condition of this EA Certificate requires the Holder to consult particular party or parties regarding the content of a management plan, the Holder must: a) Provide written notice to each such party that: i) includes a copy of the management plan; ii) invites the party to provide its views on the content of such management plan; and iii) indicates: i. if a timeframe providing such views to the Holder is specified in the relevant condition of this EA Certificate, that the party may provide such views to the Holder within such time frame; or ii. if a timeframe providing such views to the Holder is not specified in the relevant condition of this EA Certificate, specifies a reasonable period during which the party may submit such views to the Holder; b) Undertake a full and impartial consideration of any views and other information provided by a party in accordance with the timelines specified in a notice given pursuant to paragraph (a); c) Provide a written explanation to each party that provided comments in accordance with a notice given pursuant to paragraph (a) as to: i) how the views and information provided by such party to the Holder received have been considered and addressed in a revised version of the management plan; or ii) why such views and information have not been addressed in a revised version of the management plan; d) Maintain a record of consultation with each such party regarding the management plan; and

	e) Provide a copy of such consultation record to the EAO, the relevant party, or both, promptly upon the written request of the EAO or such party.
3	**Satisfaction of Agencies** Where a condition of this EA Certificate requires the Holder develop a management plan or other document to the satisfaction of one or more agencies (which may include the EAO), after submitting a draft of the management plan or other document to the agency or agencies listed in the relevant condition the Holder will not need to make further revisions to, or obtain further approval of, such management plan or other document unless any such listed agency communicates to the Holder that further revisions to such management plan or other document are required. Any such required changes or approval must be pursued by the Holder in accordance with the timelines and in a manner that is acceptable to the agency that made such request. Where a condition of this EA Certificate requires the Holder implement a management plan to the satisfaction of the EAO, the Holder must ensure that it implements such management plan in a manner and on timelines that are acceptable to the EAO. If changes or further approval are requested, the Holder must continue to implement the then current management plan unless the Holder is advised to the contrary by the EAO.
4	**Air Quality** The Holder must develop, in consultation with MOE, MOH, OGC, VCH and Aboriginal Groups, an air quality mitigation and monitoring plan, which must include at a minimum: • Measures to monitor liquefaction facility air emissions and contaminants of concern for sources modelled in the Application; • Procedures for regular reporting of liquefaction facility air emission data gathered, including reporting to the appropriate government agencies, Aboriginal Groups and the public; and • An adaptive management plan to address effects of the Project related to air quality from liquefaction facility emissions in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects related to air quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, MOE, MOH, OGC, VCH and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Commissioning. The Holder must implement the plan to the satisfaction of EAO.
5	**Instream Flow Requirements** The Holder must prepare an instream flow requirements (IFR) report for Mill Creek, in consultation with FLNR, at least 60 days prior to the commencement of Construction. The IFR report must include an interim IFR regime and a procedure for establishing a long-term IFR regime for Mill Creek. The Holder must obtain the approval of both the interim IFR regime and the long-term IFR regime from by FLNR prior to the implementation of that flow regime.

	For the life of the Project, the Holder must monitor in-stream flow on Mill Creek to confirm whether the Holder has complied with the approved interim IFR regime or the approved long-term IFR regime, as determined by FLNR. As a component of the report, the Holder must determine the IFR monitoring location, approach and reporting procedures in consultation with FLNR.
6	**Marine Water Quality – Construction** The Holder must develop, in consultation with MOE, MOH, DFO, OGC, VCH and Aboriginal Groups, a marine water quality management and monitoring plan for Construction. The plan must include at a minimum: • Results of the baseline shellfish and groundfish tissue sampling and the human health risk assessment, including arsenic, cadmium, copper, lead, zinc, methylmercury, tributyltin, polycyclic aromatic hydrocarbons, and polychlorinated dibenzo-p-dioxins and furans; • The means by which the mitigation measures related to Construction in the Application Table 22-1 under the heading "Marine Water Quality" and the recommendations in the Creosote Piles Removal Memo (April 27, 2015) will be implemented; • Measures to monitor onsite sediment and water quality and an approach to communicate any exceedances of CCME *Water Quality and Interim Sediment Quality Guidelines and* BC *Water Quality Guidelines* to the appropriate regulatory authorities; • A post-Construction follow-up program to confirm human health risk assessment, including potential additional tissue sampling to confirm the assessment predictions regarding the bioavailability and bioaccumulation of toxins in marine organisms consumed by humans, if the potential for human health risk is identified in the baseline human health risk assessment; and • An adaptive management plan to address the effects of the Project on water quality in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects on water quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must not commence Construction in the marine environment until the plan is approved by EAO. Once approved, the Holder must also provide the final plan to MOE, MOH, DFO, OGC, VCH and Aboriginal Groups. The Holder must implement the plan to the satisfaction of EAO.
7	**Marine Water Quality – Operations** The Holder must develop, in consultation with MOE, DFO, OGC and Aboriginal Groups, a marine water quality management and monitoring plan for Operations. The plan must include at a minimum: • The means by which the mitigation measures related to Operations in the Application Table 22-1 under the heading "Marine Water Quality" will be implemented;

	• Establishing an initial dilution zone for temperature, chlorine and all other contaminants, of each discharge; • Mitigation measures to ensure that any marine effluent discharge, including from the cooling water system diffuser, will meet CCME *Water Quality and Interim Sediment Quality Guidelines* and BC *Water Quality Guidelines* for the protection of marine life at the edge of the initial dilution zone; • A monitoring and follow-up program with respect to impacts to marine water quality during Operations; and • An adaptive management plan to address the effects of the Project on water quality in the event (i) those effects are not mitigated to the extent identified in the Application, or (ii) effects on water quality occur that were not predicted in the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, MOE, DFO, EC, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Operations. The Holder must implement the plan to the satisfaction of EAO.

8	**Marine Fish and Fish Habitat**
	
	The Holder must develop, in consultation with DFO and Aboriginal Groups, a marine fish and fish habitat management and monitoring plan that must include at a minimum:
	• The means by which the mitigation measures in the Application (Section 22, Table 22-1) and the recommendations in the Herring Survey Summary Report, section 4.0 (May 2015) will be implemented;
	• Identification of reduced risk work windows and the work that will occur within these windows;
	• Identification of any work that will occur outside of the reduced risk work windows, and measures to mitigate impacts to fish and fish habitat;
	• Measures to monitor the effectiveness of the mitigation measures used for the intake to minimise the risk of killing fish and herring larvae, which must include:
	  ○ A pre-Construction evaluation of fish species, including juvenile herring drift movement near the intake, modelled intake velocity and area of influence around the intake for individual fish species based on maximum burst speeds; and
	  ○ A post-Construction monitoring program to verify actual intake velocity and to evaluate the fate and behaviour of fish species near the intake screen;
	• An adaptive management plan to address the effects of the Project on fish and fish habitat in the event (i) those effects on fish and fish habitat are not mitigated to the extent identified in the Application, or (ii) effects on fish and fish habitat occur that were not predicted in the Application.
	
	The seawater cooling system intake must be designed, built, and operated to meet DFO Best Management Practice for approach velocity and screen size, as outlined in the *Guidelines for Minimizing Entrainment and Impingement of Aquatic Organisms at Marine Intakes in British Columbia* (DFO 1991).
	
	A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no

	less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
9	**Marine Mammals** The Holder must develop, in consultation with DFO, OGC and Aboriginal Groups, a marine mammal management and monitoring plan for Construction that must at a minimum: • Set out the means by which the mitigation measures related to Construction in the Application Table 22-1 under the heading "Marine Mammals" will be implemented; • Identify the geographic areas where, and periods of time when, Construction could cause injury to marine mammals; • Identify the geographic areas where, and periods of time when, Construction could cause behavioural change to marine mammals; • Identify the time periods when elevated marine mammal occupancy is anticipated within the areas of potential injury to marine mammals or areas of potential behavioural change; • Specify the role of a Qualified Professional in observing and reporting marine mammals in the areas of potential injury to marine mammals during Construction; • Specify the Construction activities (e.g. blasting, pile driving) which must stop or not start if a marine mammal is sighted in the areas of potential injury to marine mammals, and not re-start until the marine mammal has moved out of the relevant area, to the satisfaction of the Qualified Professional; and • Specify mitigation measures for Construction underwater noise that will prevent or reduce behavioural change or injury to marine mammals. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must provide the plan to EAO, DFO, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction in the marine environment. The Holder must implement the plan to the satisfaction of EAO.
10	**Invasive Plant Management** The Holder must develop, in consultation with FLNR, OGC and Squamish Nation an invasive plant management plan that describes measures to prevent, monitor and control the establishment and spread of invasive plant species in the terrestrial portions of the Certified Project Area during Construction and Operations. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, FLNR, OGC, and Squamish Nation no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
11	**Wildlife – Construction** The Holder must develop, in consultation with EC, FLNR, OGC and Aboriginal Groups, a

	wildlife management and monitoring plan for Construction that must at a minimum: • Set out the means by which the wildlife mitigation measures related to Construction in the Application Table 22-1 (sections 5.12 – 5.14 and 5.17) will be implemented; • Include results of completed marbled murrelet presence and habitat surveys, plans for additional presence surveys, and specify mitigation to avoid or reduce adverse effects of the Project on birds, including marbled murrelets and marbled murrelet habitat, to the satisfaction of a Qualified Professional. • Include mitigation measures to avoid or reduce human-wildlife conflicts and to avoid or reduce direct and indirect wildlife mortality; • Specify the mitigation measures that will be implemented for the protection of wildlife habitat features that are encountered within the terrestrial portions of the Certified Project Area; • Specify mitigation measures to identify and avoid clearing high-value nesting habitat for western screech-owl; • Specify the consideration of migratory bird timing windows when scheduling planned flaring events, where feasible from a technical and safety perspective to the satisfaction of a Qualified Professional, to minimise the risk of mortality and injury to birds during Commissioning; and • Design a monitoring and follow-up program with respect to impacts to wildlife within the terrestrial portions of the Certified Project Area during Construction. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, EC, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO. Marbled murrelet survey results must be provided to EC and FLNR prior to site clearing.
12	**Wildlife – Operations** The Holder must develop a wildlife management and monitoring plan for Operations in consultation with EC, FLNR, OGC and Aboriginal Groups, that must at a minimum: • Set out the means by which the wildlife mitigation measures related to Operations in the Application Table 22-1 (sections 5.12 – 5.14 and 5.17) will be implemented; • Identify mitigation measures and migratory bird timing windows, to reduce the risk of mortality and injury to birds during planned flaring events during Operations, as feasible from a technical and safety perspective to the satisfaction of a Qualified Professional; • Include mitigation measures to avoid or reduce human-wildlife conflicts and to avoid or reduce direct and indirect wildlife mortality; and • Include a monitoring and follow-up program with respect to impacts to wildlife within the terrestrial portions of Certified Project Area during Operations. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the plan to EAO, EC, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.

13	**Local Economic Opportunities** The Holder must design and deliver programs to support local and Aboriginal employment and contracting opportunities, skills training and education. The Holder must provide Project information related to job opportunities and subcontracting business opportunities to the affected communities and Chambers of Commerce within the labour market Local Assessment Area identified in the Application, including holding at least one job fair in Squamish at least 30 days prior to Construction. At the time of submitting compliance reports required by this EA Certificate's clause 1, the Holder must report to EAO on the implementation of these programs. The programs must be implemented during Construction.
14	**Community Services and Infrastructure** The Holder must develop, in consultation with Aboriginal Groups, local governments, provincial government infrastructure and service providers, a plan to adaptively manage and monitor effects on services and infrastructure delivered by provincial agencies and local governments. The scope of the plan is for effects that are directly attributable to the Project, and related to Construction. The plan must include the mitigation measures in the Application Table 22-1 under the heading "infrastructure and community services". The plan must include specific actions to address the following: • Communication with potentially affected Aboriginal Groups, local governments and regional districts, and provincial government infrastructure and service providers regarding Project activities and actions; and • An approach for monitoring and reporting on the effectiveness of the mitigation measures set out in the plan. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Construction. The Holder must not commence Construction until the plan has been approved by EAO, unless otherwise authorized by EAO. Once approved, the Holder must also provide the approved plan to EAO, local governments, and provincial government infrastructure and service providers, and Aboriginal Groups. The Holder is required to implement the plan to the satisfaction of EAO, as of the start of Construction until two years after the completion of Construction, unless otherwise directed by EAO.
15	**Transportation** The Holder must develop, in consultation with MOTI and the DOS, a traffic control management plan and a traffic impact assessment. The traffic impact assessment must be developed in accordance with MOTI's Planning and Designing Access to Developments manual (2009 or as updated from time to time). The traffic impact assessment must include, at a minimum, an analysis of the Project's effects on vehicular traffic and infrastructure and proposed mitigation measures for the

	Highway 99 and Darrell Bay Road intersection. The traffic management plan must at a minimum: • Identify measures to mitigate the impacts of Project-related transportation during Construction on the safety of other users and the efficiency of the transportation network on Highway 99 and the Darrell Bay ferry location; • Include measures for traffic control, public communications, incident management and response, and plan implementation; and • Identify measures to reduce the number of vehicles of Project employees commuting on Highway 99 and at the Darrell Bay ferry location. The Holder must provide the traffic control management plan to EAO, MOTI, and the DOS no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
16	**Marine Transportation – Construction** The Holder must develop, in consultation with TC, DFO, CCG, Pacific Pilotage Authority, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups a marine transport management and monitoring plan for Construction. The plan must identify at a minimum: • The means by which the marine transportation mitigation measures related to Construction in the Application Table 22-1 under the heading "marine transport" (section 7.3, M7.3-1 to M7.3-17) will be implemented; • Construction activities that have the potential to interfere with marine navigation; • Existing and traditional navigational routes, fishing areas, habitat areas, harvesting areas, commercial shipping use, recreational and tourism use, Aboriginal Groups' use, and any associated timing windows; • Actions to inform affected stakeholders and Aboriginal Groups of potential interference with marine navigation as a result of Construction activities; • Methods to coordinate activities with other marine users, including FortisBC; • Methods to minimize displacement of marine-based recreational activities; • Mitigation measures to reduce disruption of marine navigation in Howe Sound as a result of Construction activities; and • Methods to monitor the effects of the Holder's shipping activities on marine users during Construction. The Holder must provide the plan to EAO, TC, CCG, Pacific Pilotage Authority, DFO, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must implement the plan to the satisfaction of EAO.
17	**Marine Transportation – Operations** The Holder must develop, in consultation with TC, CCG, Pacific Pilotage Authority, DFO and Aboriginal Groups, a marine transport management and monitoring plan for Operations. The plan must identify at a minimum: • The means by which the marine transportation mitigation measures related to Operations in the Application Table 22-1 under the heading "marine transportation & use" (section 7.3, M5.19-3, M6.3-1, M7.3-1 – M7.3-17) will be

	implemented; • Operations activities that have the potential to interfere with marine navigation; • Existing and traditional navigational routes, fishing areas, habitat areas, harvesting areas, commercial shipping use, recreational and tourism use, Aboriginal Groups' use, and any associated timing windows; • Methods to inform affected stakeholders and Aboriginal Groups of potential interference with marine navigation as a result of Operations activities; • Mitigation measures to reduce disruption of marine navigation in Howe Sound as a result of Operations activities; and • Practices to reduce disruption and collision risk with marine mammals along the shipping route in Howe Sound; • Methods to inform the public, commercial marine user groups, and Aboriginal Groups about the results of the Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) process respecting the Project; and, • Methods to monitor the effects of the Holder's shipping activities during Operations. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must also provide the final plan to TC, CCG, Pacific Pilotage Authority, DFO, the DOS, BC Ferries, Squamish Terminals and Aboriginal Groups. The Holder must implement the plan to the satisfaction of EAO.
18	**Marine Transportation – Wake** The Holder must develop, in consultation with Pacific Pilotage Authority and Aboriginal Groups, a wake verification plan for Operations along the Certified Marine Route. The plan must at a minimum: • Identify monitoring areas within Howe Sound, at shorelines and in the waters of Howe Sound, and periods for monitoring wake; • Describe the methodology for the selection of the focus areas and periods, including how information from marine users and Aboriginal Groups informed their identification and selection; • Specify a methodology for monitoring the wake of the Holder's LNG carriers within the marine environment and at shorelines along the Certified Marine Route, particularly in relation to potential safety hazards to marine and shoreline users; • Specify a process for reporting the results of the wake verification plan; • Include options for complaint reporting, recording and responding to wake interactions between the Holder's LNG carriers and marine and shoreline users; and • Specify an adaptive management plan to address the effects of Project wake on marine and shoreline users in the event (i) those effects on marine and shoreline users are not mitigated to the extent identified in the Application, or (ii) effects on marine and shoreline users occur that were not predicted in the Application. The Holder must provide the plan to EAO no less than 60 days prior to the Holder's planned date to commence Operations. The Holder must not commence Operations until the plan is approved by EAO. Once approved, the Holder must provide the plan to TC, Pacific Pilotage Authority and Aboriginal Groups and potentially affected local

	governments. The Holder must implement the plan to the satisfaction of EAO.
19	**Engagement with Forest Tenure Holders** At least six months prior to the Holder's planned date to commence Construction, the Holder must engage with tenure holders (i) that hold a form of agreement listed in Section 12 of the *Forest Act* as of at least six months prior to the Holder's planned date to commence Construction, and (ii) that are affected by the Project. The purpose of this engagement is to seek opportunities for future ongoing access for forestry operations, while ensuring the safety and security of the site. The Holder must provide a report to FLNR and EAO on the results of such engagement at least 30 days prior to the Holder's planned date to commence Construction.
20	**Visual Quality** The Holder must develop and implement a visual quality management plan in consultation with FLNR, OGC, Aboriginal Groups, Tourism Squamish and the Sea to Sky Gondola that must at a minimum: • Specify mitigation measures to reduce the level of contrast, and provide for additional screening of land-based infrastructure to blend infrastructure with the existing landforms in the context of surrounding landscape features; • Specify mitigation measures to promote screening, including but not limited to, the establishment of new native vegetation; • Specify the selection of natural colours and flat or low glare external finishes on buildings and structures; • Include measures to monitor and maintain natural screening and external finishes, whereby the reduced the level of contrast is maintained for minimal visibility of infrastructure; and • Specify approach to engaging with Aboriginal Groups, Tourism Squamish, and the Sea to Sky Gondola Limited Partnership. The Holder must consult with BC Hydro and FortisBC on the final designs of the Woodfibre sub-station and Eagle Mountain-Woodfibre Pipeline projects, and determine whether additional mitigation measures are required to ensure that cumulative effects to visual quality are no greater than identified in the Application.
21	**Environmental Management Plans** The Holder must develop, in consultation with FLNR, OGC and Aboriginal Groups, a construction environmental management plan and an operations environmental management plan in accordance with section 13.2 of the Application. A Qualified Professional must develop the plan and supervise the implementation of the plan. The Holder must provide the construction environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 30 days prior to the Holder's planned date to commence Construction. The Holder must provide the operation environmental management plan to EAO, FLNR, OGC and Aboriginal Groups no less than 60 days prior

	to the Holder's planned date to commence Operations. The Holder must develop and implement the plans to the satisfaction of EAO.
22	**Aboriginal Consultation** The Holder must continue to engage Aboriginal Groups for the life of the Project. Engagement must include information sharing and discussion of site-specific mitigation measures, including the development and implementation of plans and the conditions of this Certificate. The Holder must provide, to the satisfaction of EAO, an Aboriginal consultation summary report no later than: • Two years after the commencement of Construction; and • One year after the commencement of Operations. The Holder must share the Aboriginal consultation summary report with Aboriginal Groups for no less than 30 days review and comment prior to providing it to EAO.
23	**Aboriginal Monitoring** The Holder must, through discussion with Aboriginal Groups, seek to provide opportunities for members of Aboriginal Groups to participate in monitoring activities identified in the plans in this Table of Conditions that are occurring within their asserted traditional territory. In the Aboriginal consultation reports required by Condition # 22 to EAO, the Holder must include information regarding the opportunities provided and the participation of members of Aboriginal Groups in monitoring activities.
24	**Public Consultation** The Holder must continue to engage the public for the life of the Project. Consultation and engagement must include information sharing and discussion of site-specific mitigation measures, including the development and implementation of plans and the conditions of this Certificate. The Holder must provide, to the satisfaction of EAO, a public consultation summary report no later than: • Two years after the commencement of Construction; and • One year after the commencement of Operations.
25	**Public Communications** The Holder must establish and maintain for the life of the Project a dedicated publicly available Project website. The website must be used for communicating information on Project status in order to promote public awareness of ongoing activities and Construction schedules, and to ensure general safety in and surrounding the Project area. Information available on the website must be kept up to date to achieve the above goals.

IN THE MATTER OF THE ENVIRONMENTAL ASSESSMENT ACT S.B.C. 2002, c.43 (ACT)

AND

AN ENVIRONMENTAL ASSESSMENT OF THE PROPOSED WOODFIBRE LNG (PROPOSED PROJECT)

ORDER UNDER SECTION 10(1)(c)

WHEREAS:

A. Woodfibre Natural Gas Limited (Proponent) proposes to construct and operate a liquefied natural gas export facility on the previous Woodfibre Pulp and Paper Mill site located approximately 7 km west-southwest of the urban centre of Squamish, British Columbia. The facility would have a storage capacity of 250,000 m^3 and would produce up to 2.1 million tonnes per year of liquefied natural gas.

B. The proposed Project constitutes a reviewable project pursuant to Part 4 of the Reviewable Projects Regulation (B.C. Reg. 370/02), since the proposed Project includes a new energy storage facility with the capability to store an energy resource in a quantity that can yield by combustion ≥ 3 PJ of energy.

C. The Executive Director has delegated to the undersigned, powers and functions under the Act, including the power to issue Orders under section 10 of the Act.

D. The Project Assessment Manager considers that the proposed Project may have a potential significant adverse environmental, economic, social, heritage or health effect, taking into account practical means of preventing or reducing to an acceptable level, any potential adverse effects of the proposed Project.

NOW THEREFORE:

Pursuant to section 10(1)(c) of the Act, the Project Assessment Manager orders that:

(i) the proposed Project requires an environmental assessment certificate; and

(ii) the Proponent may not proceed with the proposed Project without an assessment.



Ken Howes
Project Assessment Manager
Environmental Assessment Office

Dated November 27, 2013