



EAO's Assessment of an Application for Certificate Amendment Amendment #3 – Floating worker accommodations

WOODFIBRE LNG PROJECT

REQUESTED BY:
WOODFIBRE LNG GENERAL PARTNER INC.

November 1, 2023

Pursuant to Section 19 of the Environmental Assessment Act, S.B.C 2002, C.43



EAO

Environmental
Assessment Office



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ACRONYMS AND ABBREVIATIONS

the Act (2002)	<i>Environmental Assessment Act</i> , S.B.C. 2002, c. 43
the Act (2018)	<i>Environmental Assessment Act</i> , S.B.C. 2018, c. 51
Amendment Assessment	An assessment under the <i>Environmental Assessment Act</i> (2002) of a reviewable project's potential effects that is conducted in relation to an application for an amendment of an environmental assessment certificate
Report	The report describing and summarizing the Application and the Amendment Assessment for the proposed changes to the Certificate
Application	The application to amend the Environmental Assessment Certificate
Certificate	Environmental Assessment Certificate # E15-02
CPA	Certified Project Area
CSA	<i>Canada Shipping Act</i> , 2001
DoS	District of Squamish
EA	Environmental Assessment
EAO	Environmental Assessment Office
ENV	British Columbia Ministry of Environment and Climate Change Strategy
EPIC	The EAO's Project Information Centre Website
Floatel	Temporary marine based floating work camp, associated facilities and mooring infrastructure
HC	Health Canada
HLTH	Ministry of Health
Holder	Woodfibre LNG General Partner Inc.
HHRA	Human Health Risk Assessment
IAAC	Impact Assessment Agency of Canada
IC(s)	Intermediate Component(s)
MCV	Marine Construction Vessel
Project	Woodfibre LNG Project
SNEAA	Squamish Nation Environmental Assessment Agreement
Squamish Nation	Sḵwxwú7mesh Úxwumixw
TAC	Technical Advisory Committee convened by the EAO and comprised of representatives from Indigenous nations, local governments, and provincial and federal government agencies formerly known as the 'Working Group'.
VC(s)	Valued Component(s)

THE ENVIRONMENTAL ASSESSMENT OFFICE'S ASSESSMENT OF AN APPLICATION FOR CERTIFICATE AMENDMENT

WOODFIBRE LNG

OVERVIEW OF PROPOSED AMENDMENT

Background

The Woodfibre LNG Project (Project) involves the construction and operation of a liquefied natural gas export facility at the ancestral Sk̓wx̓wú7mesh Úxwumixw (Squamish Nation) village site of swíyát, located approximately seven kilometres west-southwest of Squamish, British Columbia. The Project site more recently operated as the Woodfibre Pulp and Paper Mill and hasn't operated since 2006 when the mill closed. The facility would have a storage capacity of 250,000 cubic metres and would liquefy up to 2.1 million tonnes per year of natural gas.

On October 26, 2015, Woodfibre LNG Limited was issued Environmental Assessment Certificate #E15-02 (Certificate). On March 18, 2016, the Minister of Environment and Climate Change Canada approved the Project and issued an environmental assessment (EA) Decision Statement. On October 14, 2015, Squamish Nation approved the Project with conditions they required Woodfibre LNG Limited to meet under the Squamish Nation Environmental Assessment Agreement (SNEAA).

To date the Certificate has been amended to:

- Amendment #1: Change the cooling technology from seawater cooling to air cooling, reusing the existing Mill Creek intake as opposed to constructing a new one, and withdraw water from Woodfibre Creek for short-term needs during construction; and
- Amendment #2: Amend the definition of Construction in Schedule B: Table of Conditions and remove the onsite landfill from the list of supporting permanent infrastructure in Schedule A: Certified Project Description.

On October 13, 2022, the Environmental Assessment Office (EAO)'s Chief Executive Assessment Officer issued an [order](#) that consented to the transfer of 30 percent interest in the Project to Enbridge Inc., and transferred the Certificate from Woodfibre LNG Limited to Woodfibre LNG General Partner Inc. (the Holder). On November 30, 2022, Woodfibre LNG Limited wrote to the Chief Executive Assessment Officer providing notification of the transfer of the Certificate and confirming that the transaction had closed and noted that the Holder understands that it must comply with the conditions of the Certificate. All further correspondence with the Holder regarding amendments to the Certificate will be processed and addressed to Woodfibre LNG General Partner Inc.

The EAO, Squamish Nation and the Impact Assessment Agency of Canada (IAAC) signed a memorandum of understanding on June 9, 2020, to coordinate their separate assessments. The three parties collaborated closely to meet the intent of the memorandum of understanding, while respecting each government's decision-making processes.

Additionally, the Holder has continued to advance Project planning and has further refined their workforce accommodation. The Holder publicly announced on November 23, 2021, that it had retained an Engineering, Procurement, Fabrication and Construction contractor to advance project design and engineering. On April 21, 2022, the

Holder issued a Notice to Proceed to its Engineering, Procurement, Fabrication and Construction contractor, denoting the Holder's decision to officially move forward with the Project.

Amendment Request

On October 28, 2019, the Holder submitted an application to amend the Certificate (Application) to the EAO requesting changes to the Project. The Certified Project Description, developed and approved when the Certificate was issued on October 26, 2015, does not include worker accommodation infrastructure. At the time of the original application for an Environmental Assessment Certificate in January 2015, sufficient worker accommodation options were thought to be available in local communities with a bus connection to the Project's ferry service. As a result of changing conditions for worker accommodation in these communities and across the region and following the receipt of local community feedback on land-based work camps, the Holder is now proposing a temporary accommodation for construction workers at the site. This requires an amendment to the Certificate to include the following:

- A single temporary floating worker accommodation and associated mooring and access infrastructure; and
- Onshore drinking water treatment facilities that supply the floating workforce accommodations.

The Application includes consideration for a single floating worker accommodation (referred to as a "Floatel"), located north of Woodfibre Creek, within the Certified Project Area (CPA). The proposal would accommodate approximately 650 persons on the Floatel.

The Application was reviewed by the EAO, IAAC, Squamish Nation, Tsleil-Waututh Nation, the Technical Advisory Committee (TAC), and the public starting in November 2019, through early 2020. The Holder presented a Project update specific to worker accommodation to the EAO, Squamish Nation and the TAC on November 25, 2020. The Holder held subsequent meetings with these same groups in Q1 and Q2 of 2021.

On September 26, 2022, the Holder shared an update with the EAO providing responses to comments that were received during the public engagement and comment period and comments received from the TAC between November 2019 and March 2020. The Holder provided updates to the Application, clarifying changes to the worker accommodation plans and design. The Holder provided additional documents to support the TAC's review, which include:

- TAC Comment Tracker and Holders Responses;
- Worker Accommodation Application: Design Refinements Memo;
- Alternative Means of Undertaking the Proposed Construction Worker Accommodation;
- Construction Phase Noise Assessment Technical Report; and
- Human Health Risk Assessment for Off-Duty Workers.

AMENDMENT REVIEW PROCESS

After the Holder submitted their Application on October 28, 2019, the EAO accepted the Application pursuant to Section 19 of the *Environmental Assessment Act*, S.B.C 2002, [the Act (2002)] on October 29, 2019. Section 19 of the Act (2002), allows for the Holder to apply to amend a Certificate. In considering the changes proposed in the Application, the EAO determined it was a "typical amendment."¹ This was based on the number and scope of the changes proposed, and the scope of the engagement and technical review required with agencies and Indigenous nations that would occur on the Application.

¹ <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act-guidance-materials>

The EAO convened a TAC in 2019, engaging TAC members consisting of approximately 60 representatives of federal, provincial, local governments, regional districts, health authorities and Indigenous nations identified in Schedule B and C of the [Section 11 Order](#). IAAC was engaged in the Amendment Assessment process and included coordinating their respective process for reviewing the Project's proposed changes and working with the EAO to coordinate Indigenous nation consultation. The TAC was invited to provide technical advice, comments or feedback on the review of the Application. The EAO distributed the Application to the TAC and provided a four-week review and comment period from October 29, 2019, to November 28, 2019. The following Indigenous nations, local governments, and provincial agencies were invited to participate as part of the TAC in 2019:

- BC Energy Regulator;
- Climate Action Secretariate;
- District of Squamish (DoS);
- Department of Fisheries and Oceans Canada;
- Environment and Climate Change Canada;
- Health Canada (HC);
- Ministry of Environment and Climate Change Strategy (ENV);
- Ministry of Forests;
- Ministry of Health (HLTH);
- Ministry of Indigenous Relations and Reconciliation;
- Natural Resources Canada;
- Squamish-Lillooet Regional District;
- Squamish Nation;
- Tsleil-Waututh Nation;
- Transport Canada; and
- Vancouver Coastal Health Authority.

The following Indigenous nations that were notified of the Application on November 1, 2019, and were provided four weeks (until December 2, 2019) to submit comments, concerns and feedback regarding the Application and the notification:

- Cowichan Tribes First Nation;
- Halalt First Nation;
- Lake Cowichan First Nation;
- Lyackson First Nation;
- Musqueam first Nation;
- Penelakut Tribe; and
- Stz'uminus First Nation;

A total of 138 comments were received from the BC Energy Regulator, DoS, Environment and Climate Change Canada, ENV, HC, the Ministry of Forests, HLTH, the Squamish-Lillooet Regional District and the Vancouver Coastal Health Authority. The EAO shared these comments with the Holder for their consideration and response.

A 30-day public engagement and comment period was facilitated by the EAO on November 12, 2019, lasting until December 12, 2019, and then extended until December 15, 2019. The EAO received 792 comments during the 30-day public engagement and comment period, of which the EAO published 729 of the total [comments](#) received that met the EAO's Public Comment Policy on publishing and posting public comments to EPIC. These comments were then shared with the Holder for their consideration and response.

The EAO considered the need for a second public engagement and comment period on the Application given that additional information had been provided by the Holder as a result of information requests made by the TAC. IAAC also makes a determination under their own process for the need to change the EA Decision Statement, which IAAC approved of the Project on March 18, 2016. IAAC is conducting its own assessment and need for a public engagement and comment period and determined that a public engagement and comment period on the Decision Statement was not anticipated.

The EAO also determined that a second public engagement and comment period on the Application would not be required.

On September 26, 2022, the Holder shared an update with the EAO and provided responses to both the public and TAC comments along with additional information requested by the TAC with the responses being posted to [the EAO's Project Information Centre \(EPIC\)](#). The EAO reengaged the TAC on October 31, 2022, and provided the Holder's responses to the 138 comments submitted by the TAC in 2019. The EAO also indicated that the Application going forward would consider some components of the *Environmental Assessment Act*, 2018 [the Act (2018)], mainly a consideration for [Section 25](#) assessment matters.

The TAC was again provided four-weeks to review the Holder's responses to the TAC's comment on the Application and were provided with additional documents provided by the Holder. The additional documents included the following:

- TAC Comment Tracker and Holders Responses;
- Worker Accommodation Application: Design Refinements Memo;
- Alternative Means of Undertaking the Proposed Construction Worker Accommodation;
- Construction Phase Noise Assessment Technical Report; and
- Human Health Risk Assessment for Off-Duty Workers.

The TAC was provided with a link to access the original Application for reference and additional review as needed which included the valued components (VCs), intermediate components (ICs) and the proponent's assessment of the potential effects on the identified VCs. The Holder also provided supplemental information to the Application, which included considerations for Section 25 assessment matters of the Act (2018). Although it was not required under the former Act (2002), both the EAO and Holder agreed that [Section 25](#) assessment matters would assist the decision maker's review and decision on the Application.

The EAO received additional comments or questions on the Application and the additional documents from, the BC Energy Regulator, DoS, HC, the Ministry of Forests, the Vancouver Coastal Health Authority, HLTH and Squamish Nation on or before November 28, 2022, providing an additional 56 new comments and 35 follow-up comments to the Holder's responses. An estimated 50 of 81 comments from the BC Energy Regulator, DoS, HC, the Ministry of Forests, the Vancouver Coastal Health Authority, HLTH and Squamish Nation were determined to be closed or resolved as a result of the Holder's response dated September 29, 2022.

The EAO did not require an additional public engagement and comment period for this Application and no Community Advisory Committee was established. This decision was based on:

- An initial public engagement and comment period provided an estimated 792 comments from the public which shared both support and opposition for Project and the proposed changes in the Application;
- The EAO's assessment of the Holder's responses to the comments received during the public engagement and comment period;
- The scope of the Amendment Assessment with the Project's proposed changes being located entirely within the existing CPA; and
- The Holder's continued engagement with the community including the DoS.

Key comments received on the Application are summarized in this Report. Detailed TAC comments and the Holder's responses are shared on [EPIC](#). The EAO encouraged the Holder to discuss TAC comments and resolve issues directly with agencies after written responses to comments were provided to the EAO. The EAO circulated the Holder's responses on May 19, 2023, to TAC participants that submitted comments and provided a 7-day period for the TAC participants to

respond regarding any outstanding concerns. The EAO did not receive any further comments or concerns and concluded the comment period and finalized the comment and issues tracking table.

The EAO circulated drafts of this Report to TAC participants as early as July 2023 and up to September 1, 2023, including DoS who indicated to the EAO that they needed additional time to review and provide comments on the Report. TAC members were provided with a minimum 14-day review period to comment and provide feedback on the Report and draft Order to amend the Certificate. The Amendment Assessment Report was revised in consideration of comments received from the TAC's review.

SUMMARY OF ISSUES AND EFFECTS

Effects Assessment

The Holder determined that some of the ICs and VCs considered during the initial EA for the Project would not interact with the changes proposed in the Application submitted to the EAO on October 28, 2019, and were not included in the effects assessment or carried forward in the Application. These included:

- Geotechnical and Natural Hazards (IC);
- Site Contamination (IC);
- Surface Water Quality (IC);
- Surface Water Quantity (IC);
- Marine Water Quality (IC);
- Air Quality (VC);
- Greenhouse Gas Emissions (VC);
- Migratory Birds (VC);
- Species at Risk (VC);
- Amphibians (VC); and
- Heritage Resources (VC).

Additional information and reports were provided by the Holder at the request of the TAC members during their review. These reports were used to update relevant sections of the Application. The Holder submitted the following reports and supplemental materials to address comments from the TAC:

- **Design Refinements Memo** – Explains the rationale for the Floatel components and placement;
- **Alternative Means of Undertaking the Proposed Construction Worker Accommodation** – Clarifies the decision process for selecting temporary worker accommodation for the Construction Phase of the Project;
- **Construction Phase Noise Assessment Technical Report** – Assesses the Construction Phase noise effect for noise sensitive receptors and workers' sleeping quarters on the Floatel; and
- **Human Health Risk Assessment for Off-Duty Workers** – Evaluates the potential human health risks associated with the exposures to Project-related emissions for off-duty workers staying at the Floatel.

The following ICs and VCs were included in the effects assessment in the Application:

- Atmospheric Sound (IC);
- Light (IC);
- Vegetation Communities (VC);
- Freshwater Fish and Fish Habitat (VC);
- Marine Benthic Habitat (VC);
- Marine Birds (VC);

- Forage Fish and Other Fish (VC);
- Marine Mammals (VC);
- Labour Market (VC);
- Sustainable Economy (VC);
- Infrastructure and Community Services (VC);
- Marine Transport (VC);
- Land and Resource Use (VC);
- Visual Quality (VC);
- Current Use of Lands and Resources for Traditional Purposes (VC);
- Community Health and Well-being (VC); and
- Human Health (VC).

Intermediate Components

For each of the above listed ICs, an overview of the Holder's assessment of potential effects, as outlined in its Application, is described below. Comments received from the TAC are outlined within the relevant IC section, along with the Holder's response to the comments. The ICs, Atmospheric Sound and Light, did not receive many comments or concerns during the TAC's review and did not result in any new mitigation measures or proposed changes to the Certificate and its conditions. Only information requests were made during the TAC's review, relating to comments that were provided in 2019 requesting that Construction Phase Noise Assessment Technical Report be available for review and that the results inform the Human Health Risk Assessment (HHRA). The Holder provided the Construction Phase Noise Assessment Technical Report to the EAO on September 26, 2022, which was then shared with the TAC for their review and comment on October 28, 2022.

Valued Components

For each of the VCs below, an overview of the Holder's assessment of potential effects is outlined as well as comments and concerns received during the Amendment Assessment which resulted in any new mitigation measures or proposed changes to the Certificate. The VC's that didn't result in new or proposed mitigations measures or changes to the Certificate include:

- Vegetation Communities;
- Freshwater Fish and Fish Habitat;
- Marine Benthic Habitat;
- Marine Birds;
- Forage Fish and Other Fish;
- Marine Mammals;
- Labour Market;
- Sustainable Economy;
- Visual Quality; and
- Current Use of Lands and Resources for Traditional Purposes.

Marine Transport

The Application initially stated that no new mitigation measures are required, and implementation of mitigation measures in the Project's Certificate and application for an EA certificate constitute practical means of preventing or reducing potential adverse effects on the Marine Transport VC. Through the Amendment Assessment process, the Holder responded to concerns regarding marine transportation from DoS and Squamish Nation and proposed additional mitigation measures and commitments. Although no material change is anticipated to the assessment of the adverse

residual effect on interference with commercial transportation, fisheries access routes, and recreational and tourism activities as a result of the proposed Project changes in this Amendment, the Holder proposed new mitigations and commitments ensuring that workers housed in the Floatel would not be residing at the Floatel when not actively employed at the Project and expect that non-local workers would not be residing in the community on their days off.

The operation of the Floatel for worker accommodations will rely on marine transport vessels that will transport workers to and from the Floatel during shift rotations, as well as transporting Floatel operation workers, materials and equipment, and waste to designated landfills. The Holder stated they are committed to 24-hour site security, 7 days a week and providing site access controls at all departure locations that include Darrell Bay, Squamish Harbour and the Vancouver/Lower Mainland locations. The Holder acknowledged that the Marine Transportation Management and Monitoring Plan and Traffic Management Plan are important to both DoS and Squamish Nation and continue to develop these plans with their involvement.

The Holder stated that the Floatel will provide accommodation for the majority of construction workers (an average of 87% over an approximate 35-month period) for the duration of their two-week long shift rotations, with daily worker shifts expected to be 7:00 AM to 5:30 PM with shift changes of personnel staying on the Floatel potentially occurring three times per week. The Holder expects that this will result in reducing the frequency of ferry transits required during construction, although service vessels will be needed approximately weekly to remove solid waste and sewage from the Floatel for disposal at a licensed offsite facility. However, the reduction in frequency of ferry transits due to the Floatel is not considered sufficient to change the assessment of the residual effect or the characterization of significance. As such, there are no material changes to the effects in the marine transport assessment from that provided in the Application, and the Amendment will not result in a change in the determination of significance (not significant) for the marine transport VC, as described in section 7.3 of the Application.

The EAO is proposing a new access and travel condition that addresses the concerns and comments relating to worker access and travel outside of the CPA for non-work related activities via the marine environment. This new condition addresses concerns regarding an influx of new workers within the DoS and the surrounding community and applies to both the Marine Transport and Infrastructure and Community Services VCs. Concerns were frequently raised by both DoS and Squamish Nation, relating to an influx in population within the surrounding area of the Squamish community, including Squamish Nation. Both DoS and Squamish Nation sought clarity on how the Holder would mitigate the potential for community conflict and restrict worker access to the surrounding community through the marine environment. To address the respective concerns, this new condition requires workers to reside at the Floatel unless they were residing in the DoS prior to September 20, 2023, but allows for exemptions to be considered by the Holder for extenuating circumstances.

Land and Resource Use

The Application initially stated that no new mitigation measures are required; implementation of mitigation measures identified in the Project's Certificate and application for an EA certificate will constitute practical means of preventing or reducing potential adverse effects on land and resource use from changes to the Certified Project Description included in this Amendment. Through the Amendment Assessment process, the Holder proposed new mitigations or commitments ensuring access to Squamish would be limited as the Holder has committed to provide a range of services and facilities at the Floatel as well as access control for the site. The Amendment is unlikely to result in a change to the characterization of residual effects and will not result in a change in the determination of significance (i.e., not significant) to harvest quantities in the marine environment, and displacement of marine-based recreation uses in Squamish Harbour as described in section 7.4 of the Application. The management and monitoring plans currently in progress for the Project will be amended to include the changes to the Certified Project Description included in this Amendment.

As indicated in the Marine Transport VC in the previous section, the EAO is proposing a new access and travel condition, that address the concerns and comments relating to worker access and travel outside of the CPA for non-work related activities. These concerns were frequently raised by both DoS and Squamish Nation, and specifically relating to an influx in population within the surrounding area of the Squamish community. Both the DoS and Squamish Nation sought clarity on how the Holder would meet their commitments relating to worker access to the DoS and Squamish Nation's territory. By limiting access to Squamish, the new access and travel condition addresses concerns that apply to Land and Resource VCs as well.

Infrastructure and Community Services

The Application initially stated that no new mitigation measures are required, implementation of mitigation measures identified in the Project's Certificate and application for an Environmental Assessment Certificate will continue to constitute practical means of preventing or reducing potential adverse effects on infrastructure and community services as a result of the proposed changes to the Certified Project Description. Through the Amendment Assessment process, the Holder responded to concerns regarding infrastructure and community service from DoS and Squamish Nation and proposed additional mitigation measures and or commitments. Although the proposed Project changes do not change the characterization of residual effects or determination of significance to Infrastructure and Community Services from changes in housing and accommodation, transportation, and emergency services as described in section 7.1 of the Application, the Holder has restated or agreed to new mitigations, commitments and/or Certificate Conditions ensuring that impacts on the local community are mitigated.

ENV initially in 2019, provided some comments on the application regarding wastewater and sewage disposal concerns. The Holder provided responses to their comments but when the EAO reengaged ENV in 2022, they provided notes explaining that they would no longer be commenting on the Application and that wastewater and sewage disposal would be deferred to the BC Energy Regulator as the decision maker relating to permits and approvals for the Project required under the British Columbia *Environmental Management Act*. ENV noted that authorizations for sewage discharges from floating work camp would require registration under Municipal Wastewater Regulation, which is not a decision under the *Environmental Management Act*. The EAO recognizes that the Holder would need to meet the appropriate regulatory requirements set by DoS. The EAO considers the five comments it received from ENV in 2019 regarding wastewater, marine water quality and sewage discharge to be resolved.

Following comments and concerns received during the Amendment Assessment that identified workforce housing as a continued concern by both DoS and Squamish Nation, the EAO has proposed adding the following requirements to the existing Condition 14 – Community Services and Infrastructure, requiring:

- The Holder must establish a committee to regularly engage the community, no less than once per quarter, and consult with consultation parties identified in this condition, with participation from FortisBC, on issues that impact workforce housing, safety and community services. This will include socio-economic metrics, quarterly reports, and potential cumulative issues arising from concurrent workforce housing interactions between Woodfibre LNG and FortisBC's projects, and to develop or refine responsive mitigation measures.

The Holder also restated commitments in responses to the TAC's comments and concerns which includes committing to providing a range of services and facilities on the Floatel with the objective of mitigating impacts from the construction workers on the local community. Additionally, emergency on-site medical personnel and resources will be available that meet or exceed all regulatory requirements and that meet the needs of the worksite during construction. The Holder stated they are committed to 24-hour site security, 7 days a week and providing site access controls at all departure locations that include Darrell Bay, Squamish Harbour and the Vancouver/Lower Mainland locations. These commitments,

and others, were summarized by the Holder in an Information Request made by Squamish Nation during the TAC review and comment period and is available on the EAO's EPIC².

The EAO has proposed a new condition, the Gender and Cultural Safety Plan, which is intended to address concerns relating to worker conduct concerning bullying, harassment and violence, including gender-based violence, and outlines how the Holder will address and facilitate consultation with community partners regarding these concerns. In addition, the EAO has also proposed a new condition that requires the Holder to implement a Floatel and Workplace Culture Committee that addresses concerns of worker conduct and work environment related to the Project.

Community Health and Well Being

The Application initially stated that the new proposed activities are not anticipated to materially change the pathways for effects to community health and well being from those identified and assessed in the Application and as such suggested that no new mitigation measures are required. Through the Amendment Assessment process, the Holder proposed new mitigations or commitments ensuring that the development of the Community Services and Infrastructure Management Plan would address concerns relating to protecting and supporting worker mental and physical health. The implementation of mitigation measures for the ICs and VCs that support the assessment of community health and well being identified in the Project's Certificate and application for an EA certificate will constitute practical means of preventing or reducing potential adverse effects from the proposed changes in the Application activities, and no changes are proposed. The Amendment is therefore unlikely to result in a change to the characterization of residual effects and will not result in a change in the determination of significance (i.e., negligible) for all assessed effects for current use, as described in section 9.2.1 of the Application.

The EAO is proposing a condition that address the concerns and comments relating to worker health and wellness. These concerns were frequently raised by both DoS and Squamish Nation relating to an influx of workers involved in the Project and working within the surrounding area of the Squamish community. The new condition would require the Holder to ensure cultural training is provided in the workplace and worker accommodations, that specifically address violence and sexual harassment. The condition also requires the Holder to make available and provide medical services and supplies on site for the workers.

Human Health Risk Assessment

The Holder prepared an updated HHRA in response to the comments submitted by HC, HLTH and the Vancouver Coastal Health Authority which requested that an HHRA evaluate the potential human health risks associated with the exposures to Project-related emissions for off-duty workers staying at the Floatel. HLTH and HC provided an initial review of the HHRA and had concerns about what was scoped into the HHRA relating to worker accommodations applying to both the Floatel and the Marine Construction Vessel (MCV), which was initially proposed to house and accommodate off-duty workers at the Project with the initial Application. On September 28, 2023, the Holder updated their Application, submitting a design memo that removed plans to house workers on the MCV and instead would house the workers entirely on the Floatel.

HLTH has previously sought clarity on the term 'vessels' within the *Canada Shipping Act, 2001* (CSA) as vessels' crew are protected under the Crew Accommodations Regulations. HLTH has suggested this would include barges or vessels being towed; however, for the CSA to apply the barges/vessels would also need to be "used in navigation". HLTH explained that it is their understanding that the CSA would not apply to the MCV as it is not being used for "navigation" while stationary for up to 8 weeks at a time housing crew at the project site. However, it may be possible for both the Crew Accommodation Regulations and the Industrial Camps Regulation to apply if they are not incompatible.

² <https://www.projects.eao.gov.bc.ca/api/document/64f119039d642400228aa2c5/fetch/WLNG%20-%20IR%201-12%20to%201-26%20Response%20-%2020230430.pdf>

It is HLTH's understanding that the Industrial Camps Regulation would also apply to the MCV while stationary and housing crew and as such, the MCV should have been included as a human receptor location in the HHRA. HLTH requested that the Holder update the HHRA to include off-duty workers on the MCV. The Holder provided their rationale and reasoning for considering the MCV's to be "vessels" and as such, they will be operating under the CSA and its applicable regulations and other associated policies or programs, such as the Paris and Tokyo Memorandum of Understanding which governs aspects of safety, emissions, pollution, and crew requirements.

HLTH also requested that the EAO engage ENV Air Quality specialists to verify and analyze the Air Quality modelling data presented in the HHRA. ENV provided their analysis and verification of the Air Quality modelling data and made suggestions to Holder to provide clarity on their conclusions and data sources. The Holder provided responses to ENV's questions and provided an updated HHRA on March 13, 2023. ENV confirmed with the EAO that they were satisfied with the conclusion and analysis in the updated HHRA. The EAO shared the updated HHRA with the TAC on May 19, 2023, along with the final comment and issues tracking document.

The EAO engaged the health agencies, HLTH, HC, and VCH on May 18, 2023, regarding the EAO's preliminary conclusion that it would not require the Holder to update the HHRA to include off-duty workers on the MCV's as a human health receptor. The EAO is satisfied with the Holder's approach and conclusions detailed in the HHRA, in consideration for the following reasons:

- The HHRA has included off-duty workers from the Floatel as a human health receptor;
- The limited timeframe and variable locations the MCVs will be operational in the CPA;
- The dedicated construction activities that the MCVs will be responsible for;
- The relevant regulations including the Tokyo Memorandum of Understanding and the CSA, that will apply to the MCVs; and
- The lack of Certificate Conditions applicable in prescribing the scope of HHRA's.

HC provided comments that indicated it did not have any follow-up comments regarding the HHRA for off-duty workers on the MCV's. The EAO did not receive any follow-up correspondence that indicated the health agencies needed to discuss this issue any further.

In addition to HLTH's comment on the HHRA, HLTH and HC suggested that changes to the existing conditions, specifically Condition 4 – Air Quality, be amended to consider specific monitoring parameters for the mitigation and monitoring plan to include monitoring at the Floatel and monitoring for particulate matter at 10 microns or less in diameter, particulate matter at 2.5 microns or less in diameter and nitrogen dioxide. The EAO has drafted a new condition to address this suggestion since the existing Condition 4 pertains to commissioning of the LNG facility for its Operations Phase. A dedicated air quality monitoring condition for the Floatel addresses air quality concerns at the Floatel; adaptive management language in the new condition addresses HLTH's concerns around including the updated modelling information from the updated HHRA to inform the new air quality condition.

HC also acknowledged the Holder's commitment to monitor noise levels inside the Floatel sleeping quarters so as to not exceed HC's recommended sleep disturbance threshold, which is the equivalent continuous sound level of 30 A-weighted decibels indoors. This is in accordance with World Health Organization guidelines (1999)³. The Holder's stated commitment to monitor both noise and air quality at the Floatel was provided in their revised response document titled "Information Requests SQ-1-12 and SQ-1-26", dated April 30, 2023.

The EAO is proposing a new condition for both air quality and noise monitoring at the Floatel that addresses the concerns and comments relating to the work environment, housing and accommodations. This condition also reflects the

³ World Health Organization (WHO). 1999. Guidelines for Community Noise. Berglund, B., Lindvall, T. and Schwela, D.H (Eds.). Available online at: <https://iris.who.int/handle/10665/66217>

commitments the Holder communicated to the EAO and the TAC during the Amendment Assessment. These concerns were also frequently raised by both DoS and Squamish Nation as concerns relating to housing the new worker population as a dedicated worker camp within the surrounding area of the Squamish community and located within the DoS.

Required Assessment Matters

[Section 25\(2\)](#) of the Act (2018) sets out the required assessment matters, and although this Amendment Assessment is proceeding under the former Act (2002), some aspects of the Act (2018) have been discussed and included in this Report. Section 25 (1) of the Act (2018) requires an assessment of the effects of the project on Indigenous nations and their rights. Specifically, the Holder reported that the proposed changes in the Application:

- a. Is *not* anticipated to cause any negative effects on VCs beyond what was originally considered and approved during the EA for the Project;
- b. Is *not* anticipated to increase any risks or uncertainties that are associated with the assessment of the VCs described in the Holder's application for an Environmental Assessment Certificate;
- c. Is *not* anticipated to result in increased risks to malfunctions or accidents compared to the Certificate;
- d. With the implementation of mitigation measures, the Project's proposed changes are *not* anticipated to have disproportionate effects on distinct human populations, including populations identified by gender;
- e. Assesses VCs in the Application that include biophysical factors that support ecosystem function;
- f. Is *not* anticipated to result in adverse effects on current or future generations;
- g. Is *not* inconsistent with land-use plan of the government or Indigenous nations if the plan is relevant to the assessment and to any assessment conducted under Section 35 and 73 of the Act;
- h. Is *not* anticipated to affect greenhouse gas emissions or have any effect on the province being able to meet its targets under the *Greenhouse Gas Reduction Targets Act*;
- i. Alternative means of carrying out the Project have *not* been assessed that are technically and economically feasible, including through the use of the best available technologies, and the potential effects, risks and uncertainties of those alternatives; and
- j. Is *not* anticipated to result in any changes to the Project with respect to the effects on the Project that may be caused by the environment.

Given the limited potential for proposed changes in the Application and the effects as described in section 3 of this Report, the EAO concludes that there would be *negligible or no* impacts to [Section 25\(2\)](#) matters as a result of the amendment to the Certificate. [Section 25\(2\)](#) matters were not assessed separately in the original assessment because the original application for an EA certificate, and the Certificate's previous amendments were assessed under the former Act (2002), and before the December 16, 2019, enforcement date of the Act (2018).

Indigenous Nation Engagement and Assessment

All of the proposed changes in the Application activities would occur exclusively in the asserted Squamish Nation territory and potential effects were not anticipated to extend into the traditional territories of other Indigenous nations. The Holder has engaged Squamish Nation on the Application, which also conducted an independent review of the Application for an Environmental Assessment Certificate under its own environmental assessment process and on October 14, 2015, and issued an Environmental Certificate #2015-001 for the Project, operationalized through SNEAA. The proposal to include the Floatel as part of the Project infrastructure also requires an amendment to the SNEAA.

The Holder's record of consultation and engagement with Squamish Nation on the Application is described in section 3.3 – Regulatory Authority Consultation of the Application, which accounts for activities up to and including the Holder's Application submission on October 28, 2019.

Through engagement with the EAO, IAAC, and the Holder, Squamish Nation has repeatedly conveyed its role as an autonomous regulatory agency, with interest in collaborative decision making with the EAO and IAAC. In respect of the Nation's regulatory authority, the EAO, IAAC and Squamish Nation entered into a non-binding memorandum of understanding on June 9, 2020, that the three Parties would cooperate in the conduct of this Application, while respecting each government's decision-making outcomes. The memorandum of understanding outlines general areas of focus:

- Cooperation from early engagement through to required decisions;
- Harmonize, if possible, timelines for assessing impacts and making decisions;
- Coordinate on potential conditions to avoid duplication and regulatory burden; and
- Information sharing while respecting each party's legislative, policy, and contractual requirements.

Arising from the memorandum of understanding, both the province and Squamish Nation used the Holder's Application to deliberate on whether to approve the Project's proposed changes, and if so whether such approval would require new or amended conditions of the SNEAA or the Certificate. Squamish Nation actively participated in the TAC process, with focus in that forum for matters that are well addressed under the Holder's IC / VC structure. Participation in the TAC process helped Squamish Nation engage with the EAO on issue resolution and potential conditions of approval that would be best resolved through an Environmental Assessment Certificate amendment. Conversely, matters of unique interest to Squamish Nation that either had negligible bearing on non-Nation members or were not well suited to assessment under the EAO framework were pursued between the Holder and the Nation, with option to resolve through new or amended SNEAA conditions.

The Holder and Squamish Nation both confirmed to the EAO that those two Parties held intermittent bilateral engagement on the Floatel beyond the October 28, 2019 Application submission. Detailed engagement records were not provided. It is the EAO's understanding that both the Holder and Squamish Nation consider the regulatory process for amending the SNEAA to have more relevant Project standing than the consultation obligations afforded under the British Columbia *Environmental Assessment Act*. The Nation's independent role in deciding on the Floatel amendment renders it moot for the Crown to intervene on adequacy of consultation activities.

Based on the review of the Holder's Application, the scope of the amendment, the assessment of proposed changes in the Application, the proposed EAO conditions, and the EAO's general understanding of expected SNEAA conditions, the EAO is of the view that incremental or additional impacts to the Squamish Nation – including their rights – would be acceptable to the Nation.

CONCLUSIONS

Based on:

- The information contained in the Holder's Application;
- The Holder and the EAO's consideration of [Section 25](#) matters;
- The Holder's consultation with Indigenous nations;
- The EAO's engagement with members of the TAC; and
- Comments on the Application from Squamish Nation, Tsleil-Waututh Nation, the TAC, and the Holder's responses to those comments.

The EAO is satisfied that:

- The Application and supporting information adequately identified and assessed the potential changes to the environmental, economic, social, cultural and health effects of the Project resulting from the proposed amendment to the Certificate;
- The proposed amendment, with the implementation of new conditions, is unlikely to change the residual

effects predicted in the original EA;

- The clarifications requested by TAC members and Indigenous nations were adequately and reasonably addressed by Woodfibre LNG General Partner Inc.;
- If the proposed conditions are implemented, the changes assessed in the Application are unlikely to cause incremental or additional negative effects to the Indigenous nations or their Section 35 Rights;
- The matters described in Section 25(2) of the Act (2018) have been considered and with the implementation of new conditions, no significant adverse effects are anticipated;
- Efforts to seek consensus on the Amendment Assessment process and Amendment Assessment Report conclusions were undertaken, considering the EAO's purpose to support reconciliation with Indigenous peoples in British Columbia as set out in Section 2(2)(b)(ii) of the Act (2018); and
- The provincial Crown has fulfilled its obligations for consultation and accommodation of Indigenous nations relating to the issuance of an amendment to the Certificate for the changes proposed.

The EAO recommends that the Deputy Chief Executive Assessment Officer of the EAO, upon consideration of the conclusions in this Report and any other relevant factors, issues an amendment to the Certificate under Section 19 of the Act (2002) to allow the requested changes.