

# **Wildlife Management and Monitoring Plan**

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# **Construction Phase**

**Woodfibre LNG Project  
Rev 2**

September 16, 2025

WLNG-W0001-EV-EMP-0013 Rev 2



**Woodfibre  
LNG**

## Preamble

The Woodfibre Liquefied Natural Gas Project (the Project) is a liquefied natural gas export facility being constructed on the former Woodfibre Pulp and Paper Mill site in Átl'ka7tsem (Howe Sound), approximately seven kilometres south of Skwxwú7mesh (Squamish). The Project is on the historical location of a Skwxwú7mesh Úxwumixw (Squamish Nation) village known as Swiyát. Swiyát and Átl'ka7tsem (Howe Sound) are tied to the cultural well-being of Skwxwú7mesh Úxwumixw (Squamish Nation) members, their ancestors, and their descendants, and to other Indigenous groups as defined in the Project's Environmental Assessment Certificates. The Project is also operating within the traditional, ancestral, and unceded territory of the səliłwətał (Tseil-Waututh) Nation. Woodfibre LNG General Partner Inc. recognizes the importance of these areas to the Skwxwú7mesh stélmexw (Squamish People), and other Indigenous groups. Woodfibre General Partner Inc. seeks to construct and operate the Project in a manner that is respectful of Indigenous values. This Estéteýwilhs iy Ínexwantas ta Sekw'eḵw'inexw (Wildlife Management and Monitoring Plan) is primarily written in English with important place names, species, phrases, and passages provided in Skwxwú7mesh sníchim (the Squamish language).

Temíxwiýiḵw chet wa naantem chet ti temíxw Swiyát  
Chet wa sméñhemswit kwis ns7éyxnitas chet ti temíxw  
We7ú chet kwis t'íchimwit iy íwas chet eḵ' l tti.

Our ancient ancestors named this place Swiyát  
We, as their descendants safeguard these lands  
We will continue to swim and fish in these clear waters.

## Limitations and Sign-off

This document entitled Wildlife Management and Monitoring Plan was prepared by Stantec Consulting Ltd. (“Stantec”) for the account of Woodfibre LNG General Partner Inc. (the “Client”).<sup>1</sup> Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Qualified Professional sign-off: \_\_\_\_\_

Signature

Joanna Preston B.Sc., R.P.Bio.

Printed Name

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<sup>1</sup> A draft version of this Estéteywilhs iy Ínexwantas ta Sekw’ekw’inexw (Wildlife Management and Monitoring Plan) was prepared by Hemmera, a subsidiary of Ausenco. The draft version has been revised and updated by Stantec Consulting Ltd. (Stantec) at the request of Woodfibre LNG General Partner Inc.

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## Squamish-English Translation

Squamish	English
Átl'ka7tsem	Howe Sound
ch'áatl'am	hunting
cháylhen	salmon
éhkay	snake
Estéteýwilhs iy Ínexwantas ta Sekw'ekw'inexw	Wildlife Management and Monitoring Plan
ínexwantas	monitoring
kw'áxwa7s tl'a shá7yu	western screech-owl nest boxes
kwáytsay	hemlock tree
kw'ekw'íkw'ehatl'	barn swallow
lams tl'a kw'ekw'íkw'ehatl'	barn swallow nest/nest cups
nsexá7xem	band-tailed pigeon
nsxívim	northern goshawk
piyís	marbled murrelet
sekw'ekw'inexw	wildlife
sekw'ekw'inexw tl'a shkwen	marine bird
səlilwətał	Tsleil-Waututh
shá7yu	western screech-owl
skáp'kap'tsaylh	bat
skeláw	beaver
Skwelwílem	Skwelwilem Wildlife Management Area
Skwxwú7mesh	Squamish
Skwxwú7mesh sníchim	Squamish language
Skwxwú7mesh stélmexw	Squamish people
Skwxwú7mesh Úxwumixw	Squamish Nation
slhawt'	herring
smekw'á7	great blue heron
sp'ákw'us	bald eagle
stakw	water
sts'úkwí7	fish
Swiyát	historic Squamish Nation village located at Woodfibre Site
temíxw	land
tsíptspí7lhtn	bird nest

## Abbreviations

the Application	Application for an Environmental Assessment Certificate
BC	British Columbia
BC EAO	BC Environmental Assessment Office
BMP	Best Management Practice
CDC	BC Conservation Data Centre
CEAA 2012	<i>Canadian Environmental Assessment Act, 2012</i>
CEMP	Construction Environmental Management Plan
CPA	Certified Project Area
DFO	Fisheries and Oceans Canada
EAC	Environmental Assessment Certificate
EC	Environment Canada
ECCC	Environment and Climate Change Canada
EM	Environmental Monitor
EMP	Environmental Management Plan
FDS	Federal Decision Statement
FLNR	Ministry of Forests, Lands, Natural Resource Operations
IFR	Instream flow release
km	kilometre
LAA	Local assessment area
LNG	Liquefied Natural Gas
m	metre
m <sup>3</sup>	cubic metre
MBMP	Marine Bird Management Plan
OGC	Oil and Gas Commission
Project	Woodfibre LNG Project
QP	Qualified Professional
RAA	Regional assessment area
SARA	<i>Species at Risk Act</i>
SNEAA	Squamish Nation Environmental Assessment Agreement
SOMC	Species of management concern
Woodfibre LNG	Woodfibre LNG General Partner Inc.
WMMP	Wildlife Management and Monitoring Plan

## 1.0 INTRODUCTION

Woodfibre LNG General Partner Inc. (Woodfibre LNG) will construct and operate the Woodfibre Liquefied Natural Gas Project (the Project), which is located on the former Woodfibre Pulp Mill site approximately seven kilometres (km) southwest of Sk̓wx̓wú7mesh (Squamish), British Columbia (BC) (Figure 1). The Project will have capacity to liquefy up to 2.1 million tonnes per year of natural gas and a storage capacity of 250,000 cubic metres (m<sup>3</sup>) and will export the liquefied natural gas (LNG) via tankers.

The Project underwent a comprehensive environmental assessment process from 2013 to 2015 and Woodfibre LNG received:

- an environmental assessment approval from Sk̓wx̓wú7mesh Úxwumixw (Squamish Nation) through the Squamish Nation Environmental Assessment Agreement (SNEAA) in 2015
- an environmental assessment certificate (EAC) for the Certified Project Area (CPA) under the BC *Environmental Assessment Act* (EAC #E15-02) in 2015
- a positive Federal Decision Statement (FDS) under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) in 2016

Three EAC amendments were granted by the BC Environmental Assessment Office (BC EAO) in 2017, 2019, and 2023 and the FDS was most recently reissued in 2024. Woodfibre LNG also received an extension on EAC#15-02 from the BC EAO in October 2020. The provincial, Sk̓wx̓wú7mesh Úxwumixw (Squamish Nation), and federal environmental assessment processes have each yielded conditions of approval that Woodfibre LNG must address.

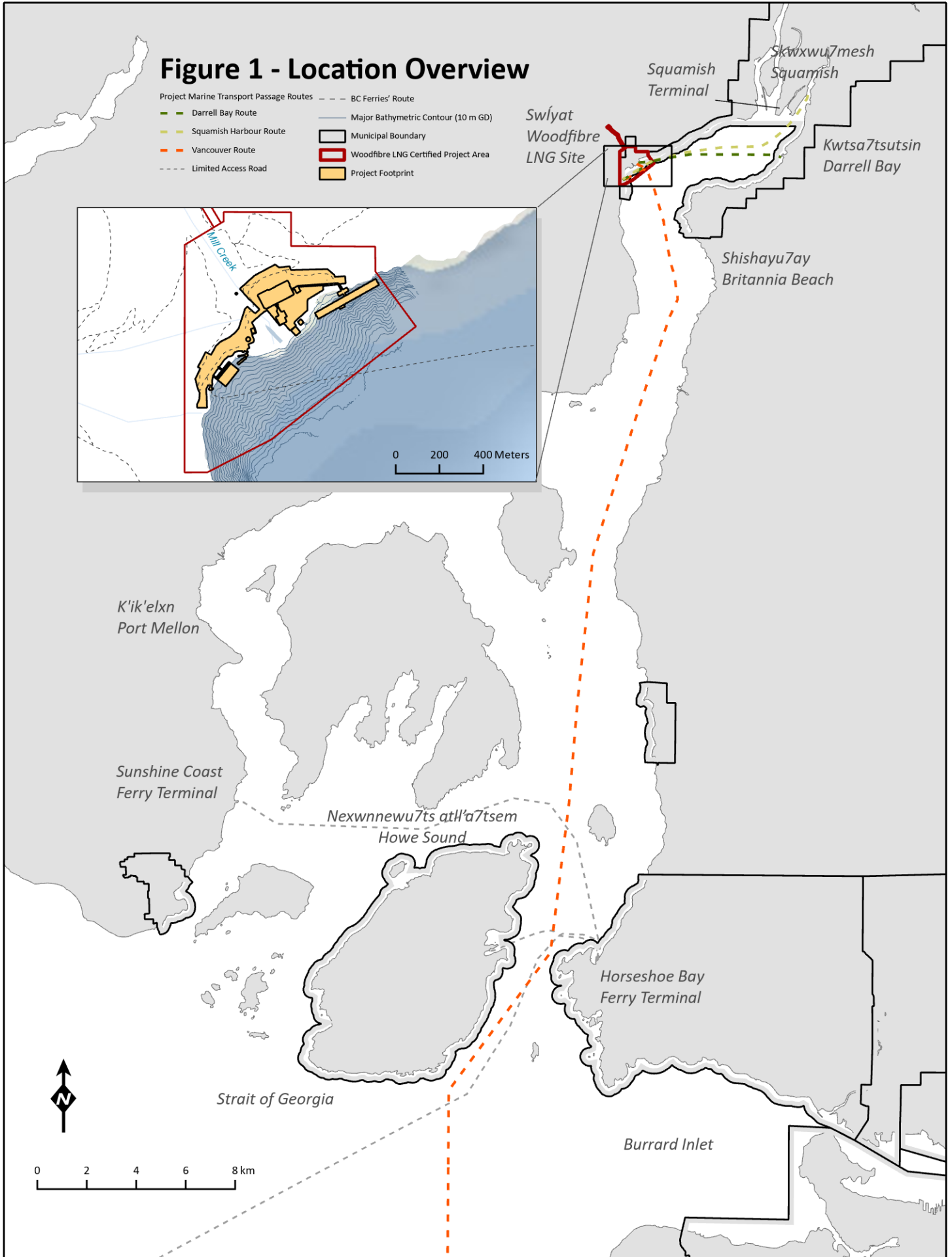
Most of the Project is on fee simple, industrially zoned, brownfield lands with more than 100 years of industrial use. There is no road access to the CPA, and all personnel, equipment, and supplies for the Project will be brought in by vessel via Átl'ka7sem (Howe Sound). The Project will use electrical power sourced from BC Hydro and gas will be supplied to the facility by Fortis BC.

The CPA and key project components are illustrated in Figure 2. Key project components are:

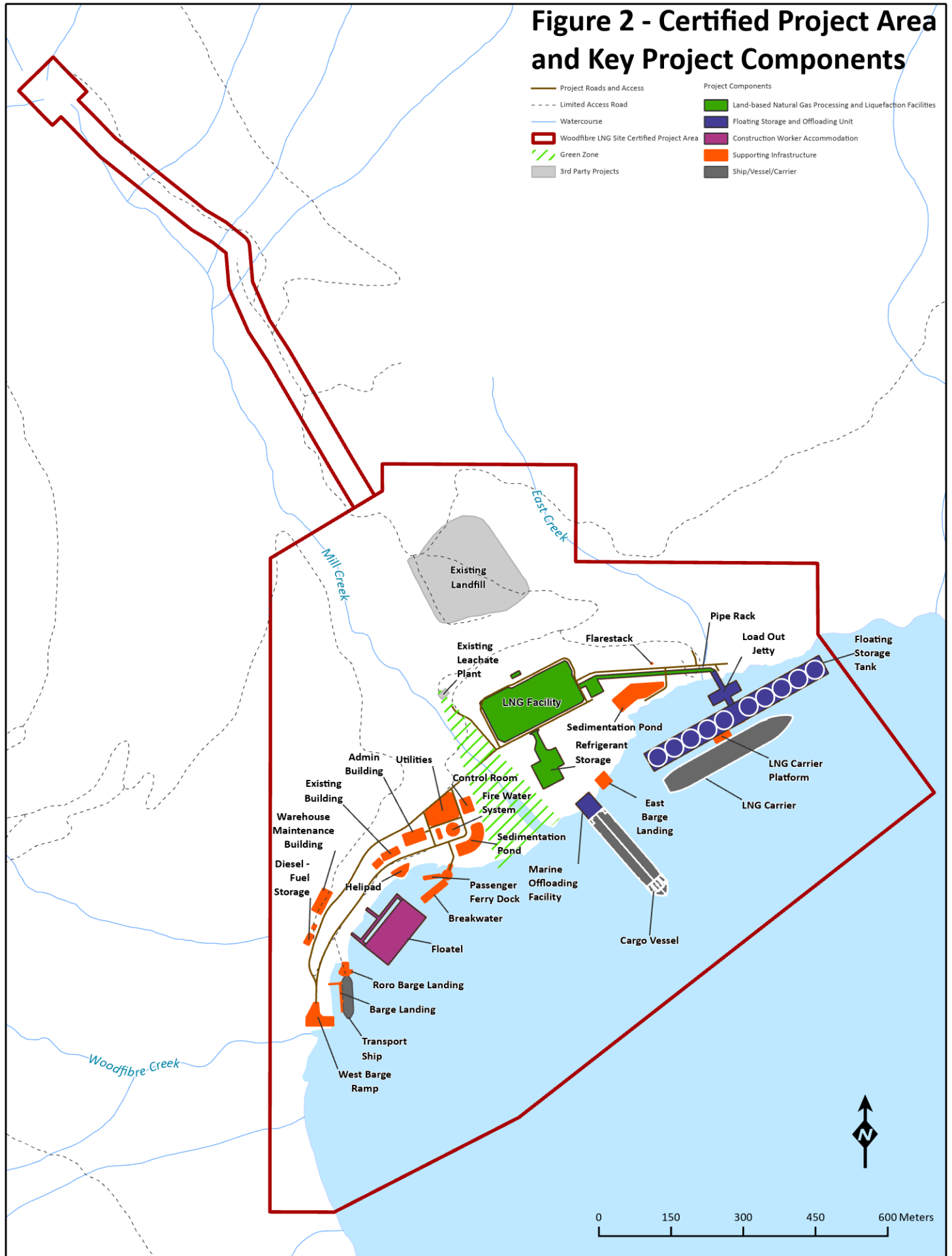
- land-based natural gas processing and liquefaction facilities
- a floating storage and offloading unit
- construction worker accommodation
- supporting infrastructure

The supporting infrastructure includes buildings (e.g., administration, control rooms, maintenance, dry storage and chemical, fire house, first aid, safety and guardhouse), fencing (temporary and permanent), material storage and laydown areas, utility and loading lines, and boil off gas vapour lines.

# Figure 1 - Location Overview



# Figure 2 - Certified Project Area and Key Project Components



The works and activities that will occur as part of construction include, but are not limited to:

- marine early works (e.g., shoreline improvements and armoring, dock replacement or repairs), including improvements to the existing in-service (east and south) barge landing
- vegetation clearing and grubbing<sup>2</sup>
- stripping and grading<sup>3</sup>
- drilling and blasting, including excavation, crushing, screening, and hauling
- grouting and rock stabilization
- road, culvert, and bridge works
- construction of land-based natural gas processing and liquefaction facility
- construction support structures, services, and equipment
- construction of the floating storage and offloading unit
- marine facility construction of mooring dolphin supports and connecting trestles and gangways
- dredging, if required

## 1.1 OBJECTIVE

The objective of this Construction Estéteywilhs iy Ínexwantas ta Sekw'ekw'inexw (Wildlife Management and Monitoring Plan; Construction WMMP) is to satisfy approval conditions and commitments by describing measures that will be implemented to mitigate potential effects on sekw'ekw'inexw (wildlife) during construction of the Project. This includes information on requirements for:

- Best management practices (BMPs) and mitigation measures identified in the environmental assessment that were selected to reduce or avoid potential effects on sekw'ekw'inexw (wildlife)
- Approaches that support mitigation, such as sekw'ekw'inexw (wildlife) surveys
- Ínexwantas (monitoring) activities, including procedures for reporting project interactions with sekw'ekw'inexw (wildlife), including potential sekw'ekw'inexw (wildlife) mortality.

This Construction WMMP is a living document and revisions will be made if relevant new information becomes available through the progression of the detailed engineering design of the Project, changes in legislation or regulation, if performance objectives are not met, or as required by Skwxwú7mesh Úxwumixw (Squamish Nation), səilwətał (Tseil-Waututh) Nation, and/or regulatory agencies. If the Construction WMMP requires updating, Woodfibre LNG will prepare a red-line version identifying the changes that are made. The red-line version will be issued to Skwxwú7mesh Úxwumixw (Squamish Nation), səilwətał (Tseil-Waututh Nation), and regulatory agencies for a 30-day review and comment period. After comments are received, the document will be updated and issued as a clean final

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<sup>2</sup> Clearing vegetation refers to cutting and/or mowing vegetation, which could include trees, shrubs, and/or herbs. Grubbing refers to removal of roots from the soil using machinery and follows clearing.

<sup>3</sup> Stripping refers to removal of soil, including vegetation, if present. Soil refers to the organic topsoil, mineral soil (i.e., A and B horizons), and overburden (i.e., C horizon, or “subsoil”). Grading refers to adjusting the slope and elevation of soil and/or rock; generally, vegetation has been removed prior to grading.

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revision for approval by Skwxwú7mesh Úxwumixw (Squamish Nation) and for submittal to the BC EAO. As standard practice, the latest version of the Construction WMMP will be implemented.

Annual tracking of updates to the status of listed species identified by the BC Conservation Data Centre (CDC), Committee on the Status of Endangered Wildlife in Canada, or the federal Species at Risk Public Registry will be completed by Woodfibre LNG. Updates to the status of listed species will be included in annual inxwantas (monitoring) reports. If needed, additional BMPs or mitigation measures may be necessary to reduce or avoid effects of the Project on the affected species in accordance with species recovery plans, should the status of a listed species change during construction.

## 1.2 PROJECT APPROVALS AND CONDITIONS

The following are the sekw'ekw'inexw (wildlife)-related conditions:

- EAC #15-02 Condition 11 (Wildlife – Construction)
- *Canadian Environmental Assessment Act, 2012* (CEAA 2012) Decision Statement Conditions 4.1 and 4.3 (Migratory birds), and 9.1, 9.2, and 9.3 (Listed species at risk)
- Mitigation measures enabled by Condition 12 of the SNEAA

Concordance tables that cross-reference the sections of this Construction WMMP to the specific conditions are provided for each of the provincial (Table 1) and federal (Table 2) environmental assessment decisions. The Skwxwú7mesh Úxwumixw (Squamish Nation) decision and conditions are described in Section 1.3. Comments received during consultation on the development of this Construction WMMP, and Woodfibre LNG's responses, are provided separately in a Consultation Record as required by EAC Condition 2.

**Table 1: EAC Conditions Relevant to the Construction Wildlife Management and Monitoring Plan**

Condition Number	Condition	Construction WMMP Reference
EAC Condition 11	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:	Entire plan
	<ul style="list-style-type: none"> <li>• 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;</li> </ul>	Table 3 Section 5.0
	<ul style="list-style-type: none"> <li>• 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;</li> </ul>	Section 4.2.1 Section 5.2 Section 5.3 Section 6.0
	<ul style="list-style-type: none"> <li>• Include mitigation measures to avoid or reduce human-wildlife conflicts and to avoid or reduce direct and indirect wildlife mortality;</li> </ul>	Section 5.2 Section 5.3 Section 6.0
EAC Condition 11 (cont'd)	<ul style="list-style-type: none"> <li>• 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;</li> </ul>	Section 5.2 Section 5.3

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**Table 1:EAC Conditions Relevant to the Construction Wildlife Management and Monitoring Plan**

Condition Number	Condition	Construction WMMP Reference
	<ul style="list-style-type: none"> <li>Specify mitigation measures to identify and avoid clearing high-value nesting habitat for western screech-owl;</li> </ul>	Section 5.3 Section 5.4
	<ul style="list-style-type: none"> <li>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</li> </ul>	Section 5.3 the Operation WMMP
	<ul style="list-style-type: none"> <li>Design a monitoring and follow-up program with respect to impacts to wildlife within the terrestrial portions of the Certified Project Area during Construction.</li> </ul>	Section 6.0
	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.	Section 3.0 Section 4.2.1

Note:

The regulator names (i.e., FLNR, OGC, EC) in the conditions reflect the names that were in place when the conditions were written. FLNR is now split into Ministry of Forests and Ministry of Water, Land and Resource Stewardship, OGC is now BC Energy Regulator, and EC is now Environment and Climate Change Canada.

**Table 2:FDS Conditions Relevant to the Construction Wildlife Management and Monitoring Plan**

Condition Number	Condition	Construction WMMP Reference
FDS Condition 4.1	The Proponent shall carry out all phases of the Designated Project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's <i>Avoidance Guidelines</i> . The Proponent's actions in applying the <i>Avoidance Guidelines</i> shall be in compliance with the <i>Migratory Birds Convention Act, 1994</i> and with the <i>Species at Risk Act</i> .	Section 5.0
FDS Condition 4.3	The Proponent shall develop, prior to construction and in consultation with Aboriginal groups, and implement, during all phases of the Designated Project, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the environmental effects of the air cooling system on migratory birds and to determine the effectiveness of the mitigation measures used to avoid harm to migratory birds, their eggs and nests, including the measures used to comply with conditions 4.1 and 4.2.	Section 6.0

**Table 2: FDS Conditions Relevant to the Construction Wildlife Management and Monitoring Plan**

Condition Number	Condition	Construction WMMP Reference
FDS Condition 9.1	The Proponent shall conduct pre-clearing surveys to determine the distribution of little brown myotis ( <i>Myotis lucifugus</i> ), and establish, in consultation with relevant government authorities, buffer zones around active hibernacula and active roosts.	Section 4.3 Section 5.3
FDS Condition 9.2	The Proponent shall, prior to construction and throughout all phases of the Designated Project, install and maintain roosting structures to offset any loss of little brown myotis ( <i>Myotis lucifugus</i> ) roosting habitat.	Section 5.4 Table 7
FDS Condition 9.3	The Proponent shall develop and implement a follow-up program to monitor the little brown myotis ( <i>Myotis lucifugus</i> ) usage of buffer zones and roosting structures to determine the effectiveness of the mitigation measures throughout all phases of the Designated Project and to verify the accuracy of the environmental assessment as it pertains to the environmental effects of the air cooling system on little brown myotis ( <i>Myotis lucifugus</i> ) <sup>4</sup> .	Section 6.0

Note:

FDS Condition 4.2 is related to operation and not construction; therefore, it is not included in this Construction WMMP.

### 1.3 SK̓W̓X̓WÚ7MESH ÚXWUMIXW (SQUAMISH NATION) ENVIRONMENTAL ASSESSMENT AGREEMENT (SNEAA)

The Sk̓w̓x̓wú7mesh Úxwumixw (Squamish Nation) environmental assessment process for the Project was designed to parallel the federal and provincial environmental assessment processes, whereby project effects on the Sk̓w̓x̓wú7mesh stélmexw (Squamish people's) rights and title interests are identified, understood, and properly avoided or mitigated. The process for the Project ultimately resulted in the Sk̓w̓x̓wú7mesh Úxwumixw (Squamish Nation) issuing an environmental assessment certificate (#2015-001), which includes conditions described in the SNEAA that was issued on October 14, 2015. Per SNEAA, "*Squamish Nation has agreed that Woodfibre may proceed with carrying out the Project, subject to Woodfibre LNG meeting, and (as applicable) continuing to meet, the Squamish Nation Conditions as provided for in this Agreement.*"

The SNEAA Condition 12, which has applicability to the Construction WMMP, states

#### **4.12 Binding Mitigation Measures - Squamish Condition #12**

- (a) *Woodfibre LNG identifies approximately 119 distinct mitigation measures in Table 22-1 of Woodfibre LNG's EA application. If Squamish Nation determines that it wishes to monitor any of the mitigation measures, then Squamish Nation will issue a notice to Woodfibre LNG identifying which mitigation measures it intends to monitor ("Monitored Mitigation Measures") and the manner it proposes to undertake such monitoring.*

<sup>4</sup> The follow-up monitoring related to the air-cooling system is presented in the Operation WMMP as it relates to the operation of the LNG facility.

- (b) *Where Squamish Nation is of the opinion that any Monitored Mitigation Measure is not being followed, it will notify Woodfibre LNG. Woodfibre LNG will respond to the notification with one of the following (the "Response"):*
- (i) *Woodfibre LNG's explanation of how the mitigation measure is being followed;*
  - (ii) *a written explanation why the mitigation measure is not being followed, and the measure that replaces it (with an explanation of how the new measure provides equal or greater levels of environmental protection);*
  - (iii) *A written explanation of why the mitigation measure is not being followed, with justification for:*
    - a. *why it has not been replaced with another measure, or*
    - b. *why it has been replaced with a measure that provides less levels of environmental protection*
- (c) *Woodfibre LNG will develop a Monitored Mitigation Measures plan with the Squamish Nation that will include the frequency of guided tours for the Squamish Nation during construction and operations and a budget to implement the plan, which plan will be fully funded by Woodfibre LNG.*
- (d) *Should Squamish Nation not be satisfied with the Response, then the Squamish Nation may submit the matter to the dispute resolution process set out in section 8.1 and if the reasonableness of the Response is at issue the expert or expert panel shall consider the following when making its decision: whether the mitigation measure has a material impact on constructability, cost, operability, safety, environment, or schedule; whether the mitigation measure creates unacceptable risk or legal liability for the Project; whether the mitigation measure conflicts with any legal, regulatory, or pre-existing contractual obligations of Woodfibre LNG; whether the Woodfibre LNG response to the proposed mitigation measure(s) conforms to Good Industry Practice; and any other information the expert or expert panel considers relevant.*

Per Condition 6 (Section 4.6) of the SNEAA, the Construction WMMP is considered a Regulated Environmental Management Plan (EMP), meaning that it is an EMP requiring approval from Sk̓wx̓wú7mesh Úxwumixw (Squamish Nation) in accordance with Section 4.6(e) of the SNEAA.

## 1.4 APPLICATION TABLE 22-1 COMMITMENTS

A concordance table that cross-references the sections of this Construction WMMP to the construction-related sekw'ekw'inexw (wildlife) commitments in Table 22-1 of the Application for an Environmental Assessment Certificate (the Application) is provided in Table 3. The mitigation measures in Table 3 are provided as proposed in Table 22-1 of the Application<sup>5</sup>; further detail on how these mitigation measures will be implemented is described in the respective Construction WMMP sections referred to in the table. Mitigation measures in Table 3 that relate to operation are addressed in the Operation WMMP.

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<sup>5</sup> At the time the Application, including Table 22-1, was submitted the company name was Woodfibre LNG Limited but it is now Woodfibre LNG General Partner Inc. The commitments as written in Table 22-1 and presented in Table 3 of this Construction WMMP remain unchanged from the Application.

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**Table 3: Table 22-1 of the Application – Wildlife Mitigation Commitments for Construction**

Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
<b>5.12 Avifauna (Birds)</b>		
M5.9-2	<p><b>Minimize Vegetation Clearing</b></p> <p>Woodfibre LNG Limited will limit clearing of native vegetation communities to the extent required for construction of Project facilities. Where feasible, temporary construction features, such as laydown areas, will be located on paved or previously disturbed areas to reduce clearing. In addition, areas to be cleared will be delineated to help limit clearing to what is planned. Reducing the clearing area to the minimum amount required to accommodate the Project footprint will reduce the direct loss of vegetation communities and wildlife habitat. Monitoring will be conducted to ensure that mitigation measures are properly implemented and effective.</p>	Section 5.2.1 Section 5.3
M5.12-1	<p><b>Wildlife Management Plan</b></p> <p>Woodfibre LNG Limited will develop and implement a Wildlife Management Plan prior to initiation of the construction phase of the project. The Wildlife Management Plan will provide the following information:</p> <ul style="list-style-type: none"> <li>• details regarding any required pre-construction surveys and wildlife monitoring: <ul style="list-style-type: none"> <li>– call-playback surveys prior to clearing that specifically focus on western screech-owl at night to ensure the cleared areas are not being used as post-fledgling areas</li> <li>– pre-construction surveys to assess potential western screech-owl nesting habitat in the potential corridors for the gas and water pipeline ROWs, and avoidance of such habitat in the final design for the Project</li> <li>– surveys will also be conducted in areas to be cleared to confirm that natural mineral sites (i.e., mineral water springs) that may be used by band-tailed pigeon are not impacted by the Project</li> </ul> </li> <li>• information on how to report and record wildlife conflicts, including wildlife mortality due to vehicles and equipment. A database of wildlife mortality associated with construction and operation of the project should be maintained through the construction and operation phases. Observations of Red and Blue-listed species will be conveyed to the CDC.</li> <li>• limit speed on roadways within the Project area to 30 km/h</li> <li>• measures to identify amphibian crossings (if any)</li> <li>• details regarding posting signage and educating workers to ensure vigilance for amphibians during peak movement periods (i.e., rainy nights in April and September)</li> </ul>	Section 4.1.2 Section 4.1.5 Section 5.3 Section 5.6 Section 6.1.2 Section 6.2 Section 7.0
M5.12-2	<p><b>Retain Snags and Wildlife Trees</b></p> <p>Woodfibre LNG Limited will retain wildlife habitat features, including those for avifauna and bats, such as snags and wildlife trees (mature trees are included in M5.9-2) wherever possible and safe to do so. Prior to site clearing, wildlife habitat features to be retained will be demarcated with no-go fencing and signage. Habitat features to be field identified and retained will be included on Project Environmental Management Plan mapping.</p>	Section 4.1.2 Section 5.0

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
M5.12-3	<p><b>Establish and Retain Vegetative Buffers Around Raptor Nests</b></p> <p>Woodfibre LNG Limited will establish and retain vegetative buffers around raptor nests to mitigate sensory disturbance in accordance with <i>Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia</i> (MOE 2013). These guidelines suggest that a 100-m vegetated buffer be retained around osprey and bald eagle nests and a 200-m vegetated buffer be retained around western screech-owl nests. An additional 100-m no-disturbance buffer for each species nests is recommended during the nesting season.</p>	Section 5.0 Section 5.3
M5.12-4	<p><b>Avoid Clearing During Bird Nesting Season</b></p> <p>Where possible, Woodfibre LNG Limited will avoid vegetation clearing during the nesting season for bald eagles, osprey and western screech-owl in accordance with MOE (2013). The least risk periods for development outlined in MOE's <i>Develop with Care 2014</i> guidelines (MOE 2014) are identified as follows:</p> <ul style="list-style-type: none"> <li>• bald eagle – September 1 to December 31</li> <li>• osprey – September 15 to March 31</li> <li>• other raptors – October 1 to February 28</li> </ul> <p>Woodfibre LNG Limited will avoid clearing during nesting season for passerines in accordance with least risk development windows to passerines (September 1 to February 28) provided in MOE (2014).<sup>6</sup> Pre-clearing bird nest surveys will be undertaken if the aforementioned least risk windows cannot be maintained. Appropriate, species-specific setback buffers will be established and maintained around any confirmed or suspected active nests that are detected.</p>	Section 5.0 Section 5.3 Table 6
M5.12-5	<p><b>Light Management</b></p> <p>Subject to safety and operational requirements, Woodfibre LNG Limited will use blue or green lighting rather than red or white lighting in order to reduce attractiveness to birds.</p>	Section 5.2.2 Section 5.2.3 Section 6.1.2

<sup>6</sup> Correction: This least risk window (September 1 to February 28) and reference cited (i.e., MOE, 2014) applies to raptors, and not passerines as suggested. Table 6 in Section 5.3 provides the least risk windows for wildlife, including passerines.

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
M5.12-6	<p><b>Blasting Management Plan</b></p> <p>Woodfibre LNG Limited will develop and implement a blasting management plan as part of the CEMP to mitigate effects of blasting to freshwater and marine aquatic life and marine birds. Monitoring of effects should be incorporated into the plan so that corrective mitigation measures can be undertaken if necessary. Blasting activities will conform to the <i>Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters</i> (Wright and Hopky 1998).<sup>7</sup></p> <p>Where feasible, underwater blasting will be scheduled to occur during periods when the number of birds in the area is lowest (likely the summer), with a maximum of one underwater blast per day, or at intervals of several hours (Cooper 1982)<sup>8</sup>. In addition, noises or blasts (e.g., “thunderflashes”) to scare birds away from the immediate vicinity of the blast site will be emitted immediately prior to detonation (Cooper 1982, Demarchi and Bentley 2004)<sup>9</sup>.</p>	Section 5.3
M5.12-7	<p><b>Reduce Electrocutation Potential</b></p> <p>Woodfibre LNG Limited will design powerlines and conductor layout to reduce potential bird strikes. The new powerlines will be small extension to the Project area with short spans of lines between poles and are expected to be visible to birds. If larger spans of line are installed, conductors will be placed far apart to avoid electrocution, and powerlines will be marked to enhance visibility for avian VCs.</p>	Section 5.2.4 Section 6.1.2
M5.12-8	<p><b>Install Nesting Structures</b></p> <p>Woodfibre LNG Limited will install western screech-owl and barn swallow nesting structures at suitable locations in the LAA once construction is complete to compensate for the removal of (possible) nesting habitat during construction. Artificial nest structures for barn swallows include nesting shelves or nesting cups attached to an appropriate surface.</p>	Section 4.1.2 Section 4.1.4 Section 5.3 Section 5.4
M5.12-9	<p><b>Design Buildings to Reduce Bird Strikes</b></p> <p>Woodfibre LNG Limited will design building facilities to reduce the potential for bird strikes and bird mortality. Design features will include minimizing the amount of glass and applying tints or facades where glass is required to provide visual cues.</p>	Section 5.2.3 Section 5.3 Section 6.1.2
M5.12-10	<p><b>Work With BC Hydro and FortisBC to Minimize Effects to Wildlife</b></p> <p>Woodfibre LNG Limited will meet with BC Hydro (i.e., Woodfibre Substation project) and FortisBC (i.e., Eagle Mountain – Woodfibre Gas Pipeline Project) to identify further measures to minimize potential adverse cumulative effects on wildlife.</p>	Section 5.6

<sup>7</sup> Wright, D.G. and G.E. Hopky. 1998. Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters. Canadian Technical Report of Fisheries and Aquatic Sciences 2107. Available at: [Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters \(publications.gc.ca\)](http://publications.gc.ca).

<sup>8</sup> Cooper, J. 1982. Methods of reducing mortality of seabirds caused by underwater blasting. *Marine Ornithology* 10: 109-114.

<sup>9</sup> Demarchi, M.W. and M.D. Bentley. 2004. Effects of natural and human-caused disturbances on marine birds and pinnipeds at Race Rocks, British Columbia. Prepared for Department of National Defence, Canadian Forces Base Esquimalt and Public Works and Government Services Canada.

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
M5.14-2	<p><b>Identify Sensitive Habitat</b></p> <p>Prior to initiation of the construction phase of the Project, Woodfibre LNG will identify important habitat to be retained by including it in construction plans and by field-identified with no-go fencing.</p>	<p>Section 4.1.2</p> <p>Section 4.3</p> <p>Section 5.3</p>
<b>5.13 At-risk Bat Species</b>		
M5.9-2	<p><b>Minimize Vegetation Clearing</b></p> <p>See description for M5.9-2 above.</p>	<p>Section 5.2</p> <p>Section 5.3</p>
M5.11-2	<p><b>Minimize Clearing of Sensitive and Important Ecosystems</b></p> <p>Woodfibre LNG Limited will, where possible, design the Project to avoid the riparian area along Mill Creek (outside of the Green Zone) and the mature forest adjacent to the Creek.</p>	<p>Section 4.3</p> <p>Section 5.2.1</p>
M5.12-1	<p><b>Wildlife Management Plan</b></p> <p>See description for M5.12-1 above.</p>	<p>Section 4.3</p> <p>Section 5.3</p> <p>Section 5.6</p> <p>Section 6.1.2</p> <p>Section 6.2</p> <p>Section 7.0</p>
M5.12-2	<p><b>Retain Snags and Wildlife Trees</b></p> <p>See description for M5.12-2 above.</p>	<p>Section 4.3</p> <p>Section 5.0</p>
M5.12-10	<p><b>Work With BC Hydro and FortisBC to Minimize Effects to Wildlife</b></p> <p>See description for M5.12-10 above.</p>	<p>Section 5.6</p>
M5.13-1	<p><b>Avoid Clearing During Bat Maternity Season</b></p> <p>Woodfibre LNG Limited will avoid clearing when maternity roosts are likely to be active. The least risk season for bats in the Project Area (i.e., when females are not heavily pregnant nor when juvenile bats are present and unable to fly) is expected to occur between September 1 to May 15, therefore clearing will be avoided when possible between May 16 and August 31. Pre-clearing maternity roost surveys will be undertaken if the least-risk windows cannot be maintained. Acceptable non-disturbance buffers will be established around active maternity roosts.</p>	<p>Section 4.3</p> <p>Section 5.3</p>
M5.13-2	<p><b>Minimize the Amount of Ultraviolet Light</b></p> <p>Woodfibre LNG Limited will, where possible, use lighting technology that minimizes the amount of ultraviolet light generated, thereby minimizing its attractiveness to insects.</p>	<p>Section 5.0</p> <p>Section 5.2.2</p>
M5.13-3	<p><b>Installation of Bat Boxes</b></p> <p>Woodfibre LNG Limited will construct and install bat boxes away from potential sources of mortality (e.g., roads) to provide additional roosting habitat for bats.</p>	<p>Section 4.3</p> <p>Section 5.4</p>
M5.14-2	<p><b>Identify Sensitive Habitat</b></p> <p>See description for M5.14-2 above.</p>	<p>Section 4.3</p> <p>Section 5.3</p>

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
<b>5.14 Amphibians</b>		
M5.8-1	<b>Erosion Prevention and Sediment Control Plan</b> See description in the CEMP.	CEMP
M5.8-5	<b>Develop and Implement a Water Quality Monitoring Program</b> Woodfibre LNG Limited will develop and implement a water quality monitoring program for Mill Creek and Woodfibre Creek. Information to be included within this program will include sample sites, frequency of sampling, and parameters to be monitored.	CEMP
M5.9-2	<b>Minimize Vegetation Clearing</b> See description of M5.9-2 above.	Section 5.0 Section 5.3
M5.12-1	<b>Wildlife Management Plan</b> See description of M5.12-1 above.	Section 4.4 Section 5.3 Section 5.6 Section 6.1.2 Section 6.2 Section 7.0
M5.12-10	<b>Work With BC Hydro and FortisBC to Minimize Effects to Wildlife</b> See description of M5.12-10 above.	Section 5.6
M5.14-1	<b>Avoid Falling Trees into Watercourses</b> Where safe to do so, Woodfibre LNG will avoid falling trees into the watercourse where clearing is necessary adjacent to a watercourse (e.g., Mill Creek).	Section 5.3
M5.14-2	<b>Identify Sensitive Habitat</b> See description of M5.14-2 above.	Section 4.4 Section 5.3
M5.14-3	<b>Salvage and Replace Coarse Woody Debris</b> Woodfibre LNG Limited will salvage coarse woody debris that has been removed in upland areas to facilitate Project construction and will relocate it along linear features and within the Green Zone upon completion of the construction phase.	Section 5.3
M5.14-4	<b>Develop an Environmental Protection Plan for Works in and About Mill Creek</b> Woodfibre LNG Limited will develop and implement an Environmental Protection Plan specific to works required in and around Mill Creek. The Plan will be developed prior to the initiation of instream works. This plan will require coastal tailed frog salvage for instream construction.	Section 5.2.1 Section 5.3

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
M5.15-2	<p><b>Water Management Plan</b></p> <p>Woodfibre LNG Limited will develop a Water Management Plan for Mill Creek, which will afford protection of fish and fish habitat by prescribing the minimum instream flow releases (IFRs). During low flows, water withdrawals from Mill Creek will be reduced to meet IFRs. If streamflows are less than the IFR, water will not be withdrawn from Mill Creek.</p> <p>Instream flow releases specific to the existing flow regime and geomorphology of Mill Creek will be developed in general accordance with <i>Assessment Methods for Aquatic Habitat and Instream Flow Characteristics in Support of Applications to Dam, Divert, or Extract Water from Streams in British Columbia</i> (Lewis et al. 2004) and consultation with MFLNRO. The information requirements for determining IFRs include the fish-bearing status of the stream, historic flow records, and any recently collected data. This current and historical information will allow for the establishment of seasonally adjusted instream flow thresholds calculated as percentiles of natural mean daily flows each month. Until such time as the Mill Creek-specific IFRs can be developed, the Project will adhere to IFRs calculated in accordance with the methods outlined in <i>Development of Instream Flow Thresholds as Guidelines for Reviewing Proposed Water Uses</i> (Hatfield et al. 2003).</p> <p>Monitoring will be a requirement of the Water Management Plan to confirm that the plan is effective in protecting fish and fish habitat. Effective monitoring will include a combination of compliance monitoring and biotic response monitoring and the definition of program objectives. Design of a monitoring program will consider program objectives, scope of effort, timing, and duration. Typical designs include, though are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• continuous streamflow monitoring downstream of point of withdrawal</li> <li>• intermittent monitoring of biotic variables (e.g., fish abundance or density)</li> <li>• random IFR compliance audits</li> </ul>	Section 5.3
<b>5.17 Marine Birds</b>		
M5.12-1	<p><b>Wildlife Management Plan</b></p> <p>See description of M5.12-1 above.</p>	Section 4.2 Section 5.3 Section 5.6 Section 6.1.2 Section 6.2 Section 7.0
M5.12-10	<p><b>Work With BC Hydro and FortisBC to Minimize Effects to Wildlife</b></p> <p>See description of M5.12-10 above.</p>	Section 5.6

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
M5.17-1	<p><b>Avoid Clearing During Marine Bird Breeding Season</b></p> <p>Woodfibre LNG Limited will follow guidelines for restricted activity periods to protect nesting marine birds to comply with the federal <i>Migratory Birds Convention Act</i> and the provincial <i>Wildlife Act</i>. The site is located within the A1 bird nesting zone in Canada, which has a regional nesting period of March 19 to August 17 (EC 2014);<sup>10</sup> however, the breeding season for colonial waterbirds extends from March into September (EC 2013a). Based on the locations of recorded colonial waterbird nesting habitat, colonial waterbirds are unlikely to be affected by clearing activities associated with the Project; therefore, the A1 bird nesting zone period (March 19 to August 17) will be followed and the clearing activities will be avoided during the nesting season where feasible.</p> <p>When clearing is required during the nesting season, pre-clearing surveys for nesting birds will be conducted and appropriate, species-specific setback-buffers will be established and maintained around any confirmed or suspected active nests to reduce potential mortality. This mitigation measure is predicted to be effective in reducing potential marine bird mortality.</p>	Section 5.3 Table 6
M5.17-2	<p><b>Establish and Maintain Bird Nest Setbacks</b></p> <p>Project activities will maintain a minimum 30 m setback distance from active marine bird nests identified in the Project area. Larger setbacks may be established for listed species and will be considered on a species-by-species case.</p>	Section 5.3
M5.17-3	<p><b>Establish and Maintain Marine Bird Breeding Colony Setbacks</b></p> <p>Woodfibre LNG Limited will comply or require its contractors to comply with the recommended 300 m minimum setback from waterbird colonies (see Figure 5.17-2) for Project – related marine vessel traffic, and subject to safety concerns, refrain from blowing horns or whistles and maintain constant engine noise while passing near the colonies (EC 2013a).</p>	Section 5.3
M5.17-4	<p><b>Implement Marine Vessel Speed Restrictions</b></p> <p>During inbound travel, LNG carriers will be moving at a maximum speed of 8 to 10 knots at the south end of Passage Island (entrance to Howe Sound and the RAA) until they reach the immediate vicinity surrounding the Project area (LAA) where speeds will be reduced to 6 knots. To the extent practical, all other Project vessels will limit their speed while travelling within the RAA.</p>	Section 5.3
M5.17-5	<p><b>Minimize the Duration of Activities in Intertidal Zone</b></p> <p>Woodfibre LNG Limited will minimize the duration of necessary activities, including both dismantling and construction of structures, that must occur within the intertidal zone to the extent possible to reduce the disturbance of marine birds and marine bird habitat. Where practicable, activities will be scheduled during low tide.</p>	Section 5.3
M5.17-6	<p><b>Underwater Noise Management Plan</b></p> <p>Woodfibre LNG Limited will prepare and implement an Underwater Noise Management Plan as a component of the Marine Works Management Plan (M5.10-1) to mitigate potential mortality and behavioural changes to birds, fish</p>	Section 5.3 CEMP

<sup>10</sup> The nesting period for the A1 bird nesting zone has been updated since the commitment in Table 22-1 of the Application was prepared. The updated window is March 26 to August 16 (ECCC, 2018a).

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
	<p>and marine mammals. The plan will reference DFO's <i>BMP for Pile Driving and Related Operations</i> (BCMPDCA and DFO 2003), and will contain the following measures:</p> <p>Pile Driving and Related Activities:</p> <p>Multiple underwater noise generating activities will be minimized when practicable (e.g., avoid multiple pile driving activities at the same time). Where multiple underwater noise generating activities are planned, they will be sequenced to minimize construction duration.</p> <ul style="list-style-type: none"> <li>• Works in the marine environment will be conducted during the least risk fisheries work window specified by DFO for the region unless otherwise agreed upon by DFO. The prescribed work window for Howe Sound is August 16–January 31 (DFO 2014b).</li> <li>• Where possible, pile driving activities will avoid impacting hard substrates to prevent disturbance to fish habitat.</li> <li>• The use of vibrational pile driving will be used where practical and feasible as impact pile driving is associated with louder sound pressure levels underwater. The use of vibro-hammers for pile installation minimizes the effects on fish by decreasing the anticipated noise levels.</li> <li>• A ramp up or soft start technique will be used. Where equipment allows, power will be built up slowly from a low energy start-up to give adequate time for marine wildlife to leave the vicinity before exposure to the maximum sound pressure level. There will be a soft start every time pile driving is resumed following an interval of no pile driving.</li> </ul>	
M5.17-6 (cont'd.)	<ul style="list-style-type: none"> <li>• Underwater noise from pile driving activities will be monitored in accordance with the following: <ul style="list-style-type: none"> <li>– Sound will not exceed 30 kPa at a distance of 1 m to 2 m from pilings; or</li> <li>– If the sound exceeds 30 kPa at a distance of 1 m to 2 m from pilings, measures will be taken to reduce either the intensity of the sound generated or the level of sound propagation through the water column. The appropriate measures will be chosen based on practicality to the Project and effectiveness and may include: <ul style="list-style-type: none"> <li>o silt curtains around pile driving activities</li> <li>o bubble curtains around pile driving activities</li> <li>o a vibratory hammer in place of an impact hammer for pile driving</li> </ul> </li> </ul> </li> <li>• Prior to pile driving, the perimeter of the pile driving area will be identified, so that work occurs within the confines of the pile driving area.</li> </ul> <p>Monitoring:</p> <p>The Environmental Monitor will be responsible for monitoring underwater noise and potential effects to wildlife, and implementing corrective mitigation measures if necessary [e.g., establishing safety zones in the event underwater noise levels exceed injury thresholds (180 and 190dB re 1 µPa)].</p>	Section 5.3 CEMP

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Mitigation Number	Mitigation Name and Proposed Mitigation	Concordance with the Construction WMMP
M5.17-8	<p><b>Development of a Marine Bird Management Plan</b></p> <p>Woodfibre LNG Limited will develop and implement a Marine Bird Management Plan (MBMP) prior to the initiation of the construction phase of the Project. This MBMP will be part of an overall Wildlife Management Plan document. This plan will include:</p> <ul style="list-style-type: none"> <li>• Pre-construction surveys within mapped (but not field-verified) marbled murrelet critical nesting habitat to be cleared as part of the Project will be undertaken following appropriate standards developed by the Resource Information Standards Committee for marbled murrelet inventory (MELP 2001). These surveys will determine if marbled murrelets are currently nesting in these areas (if timing of Project construction allows for these surveys to be conducted during nesting season), or if these areas provide suitable nesting habitat (if timing of Project construction prevents surveys of during active nesting activity).</li> <li>• Provision of information and training to all workers (contractors, staff, and employees) on how to report and record marine bird conflicts in the Project area, specifically vessel strikes (bird species, location of carcass on vessel, weather conditions) in a database during construction, operation and decommissioning.</li> <li>• Should regular review of the database identify areas of persistent conflict or mortality rates that would affect populations, the Project operations will be reviewed to identify potential mitigation measures.</li> </ul>	<p>Section 4.2 Section 5.0 Section 6.1.2</p>
M5.17-8 (cont'd.)	<p>Pre- and post-construction (operation-phase) monitoring of marine birds in the Project area. If the monitoring identifies high levels of marine bird attraction and collision related mortality associated with the Project on-shore infrastructure, lighting, weather or migration periods, additional mitigation measures will be explored, including: turning off unnecessary lights (exterior and interior), especially during periods of high marine bird migratory flight activity in the area, wider light shut-down periods during migratory periods and inclement weather events (overcast, cloudy and/or hazy and foggy conditions), avoidance of continuous red or flashing red incandescent lights, use of blue jelly-jar LED lights on suspension cables and rectangular blue LED lights on bridge decks (Golder et al. 2010<sup>11</sup>). Survey methods may include stand watches during migratory periods (spring and fall) in an adaptive management approach.</p>	<p>Section 4.2 Section 5.0 Section 6.1.2</p>
M5.17-9	<p><b>Coordinate with BURNGO to Share Information from Marine Bird Monitoring Studies</b></p> <p>Woodfibre LNG Limited will coordinate with BURNGO to mutually share results of marine bird monitoring studies to contribute to the knowledge base for marine bird interactions.</p>	<p>Section 5.6</p>

<sup>11</sup> Golder Associates Ltd., ABR, Inc., and Rolf Bergman Consulting. 2010. Literature Review, Synthesis, and Design of Monitoring of Ambient Artificial Light Intensity on the OCS Regarding Potential Effects on Resident Marine Fauna. Prepared for: US Department of the Interior, Minerals Management Service, Anchorage, AK. Golder Associates Inc., Mount Laurel, NJ, ABR, Inc. Environmental Research & Services, Fairbanks, AK, and Rolf Bergman Consulting, Cleveland Heights, OH. 93 pp.

## 2.0 REGULATORY FRAMEWORK

### 2.1 REGULATORY REQUIREMENTS

Legislation and regulations that apply to the management of sekw'ekw'inexw (wildlife) include the federal *Species at Risk Act* (SARA), *Migratory Birds Convention Act* and Migratory Birds Regulations (Section 2.2), and the provincial *Wildlife Act* and *Oil and Gas Activities Act* (Section 2.3). Woodfibre LNG is responsible for abiding by all applicable legislation, regulations, permits, and authorizations while undertaking work for the Project.

### 2.2 FEDERAL REGULATIONS

#### 2.2.1 *Species at Risk Act*

The SARA is a federal Act that applies to certain sekw'ekw'inexw (wildlife) species in Canada. Species listed on Schedule 1 as extirpated, endangered, or threatened are afforded protection under SARA. Species listed as special concern on Schedule 1 are managed to prevent them from becoming extirpated, endangered, or threatened. It is prohibited to kill, harm, harass, capture, or take an individual of those Schedule 1 species. It is also prohibited to damage or cause destruction to the residence (e.g., nest or den) of species listed as extirpated, endangered, or threatened on Schedule 1. The federal government is required to develop a recovery strategy for those Schedule 1 species and identify critical habitat. Recovery strategies that apply to this Project are listed in Section 5.1.

#### 2.2.2 *Migratory Birds Convention Act*

The federal *Migratory Birds Convention Act* and the Migratory Birds Regulations, 2022 (updated July 30, 2022) provide protection for migratory birds identified in the *Act* on federal, provincial, and private lands. These protections include a prohibition on depositing harmful substances in areas frequented by migratory birds, and a prohibition on disturbing, destroying, taking, or possessing migratory birds, their nests, and eggs.

Under the updated Migratory Birds Regulations, 2022, the nests of certain species, identified in Schedule 1 of the Migratory Birds Regulations, will be protected year-round for a period since they were last used (e.g., 12, 24, or 36 months), whether those nests are active or not. Pileated woodpecker (*Dryocopus pileatus*) nests are likely within the CPA; these nests have a 36-month waiting period. The nests of most species, however, can be removed without a permit provided those nests do not contain a live bird or viable egg or are protected as a residence under SARA.

## 2.3 PROVINCIAL REGULATIONS

### 2.3.1 *Wildlife Act*

The provincial *Wildlife Act* prohibits intentional feeding or attempting to feed dangerous sekw'ekw'inexw (wildlife). Further, it is prohibited to leave an attractant out that may attract dangerous sekw'ekw'inexw (wildlife). Birds, occupied nests, or eggs may not be possessed, taken, injured, molested, or destroyed.

The nest of an eagle, peregrine falcon (*Falco peregrinus*), gyrfalcon (*Falco rusticolus*), osprey (*Pandion haliaetus*), and heron are protected year-round regardless of the status of the nest (i.e., occupied or unoccupied).

Disturbing, molesting or destroying skeláw (beaver) lodges and dams and muskrat houses or dens is prohibited under the *Wildlife Act* without permits. The attempted capture and handling of sekw'ekw'inexw (wildlife) (e.g., amphibians) requires a permit under the *Wildlife Act*.

### 2.3.2 Oil and Gas Activities Act

The Environmental Protection and Management Regulation of the *Oil and Gas Activities Act* provides the statutory authority to the BC OGC for the management and protection of environmental values. Oil and gas activities are required to be planned and undertaken in a manner where the activities do not damage or make a wildlife habitat feature ineffective.

Wildlife habitat features include high priority wildlife dens and nests of birds exhibiting nest fidelity, and significant mineral licks and wallows (see OGC's Environmental Protection and Management Guidelines, 2021).

## 3.0 ROLES AND RESPONSIBILITIES

The CEMP describes the roles and responsibilities of the Environmental Manager, Contractor, Qualified Professional (QP) and Environmental Monitor (EM). Specific to the Construction WMMP, the QP is responsible for:

- Providing discipline-specific expertise (e.g., amphibians, shá7yu [western screech-owl])
- Undertaking surveys requiring a QP and preparing reporting as required by the Construction WMMP
- Annual review of CDC/SARA registry to identify changes to the conservation status of sekw'ekw'inexw (wildlife) species that may occur in the Project area. Providing updates and recommending mitigations, as applicable, to the Woodfibre LNG Environmental Representative based on the findings of the review.
- Quarterly review of Wildlife Observation Forms to determine if a species of management concern (i.e., sekw'ekw'inexw [wildlife] species listed provincially on the Red- or Blue-list or on Schedule 1 of SARA) not previously detected in the Project area was detected during construction. Reporting detections of Red- or Blue-listed species or species at risk on Schedule 1 of SARA to the BC CDC.
- Supervising the implementation of the Construction WMMP.

## 4.0 SEKW'EKW'INEXW (WILDLIFE) SETTING

Baseline information on the sekw'ekw'inexw (wildlife) that use the temixw (land) and stakw (water) in the vicinity of the Project was presented in Woodfibre LNG's Application for an EAC in January 2015. Information in the Application was used to assess potential effects on sekw'ekw'inexw (wildlife) and identify mitigation measures to avoid or reduce the potential effects. Sekw'ekw'inexw (wildlife) included species of management concern (SOMC).<sup>12</sup>

The baseline information presented in the Application has since been supplemented with additional pre-construction field surveys based on commitments made by Woodfibre LNG or as required by environmental assessment approval conditions. The pre-construction surveys are specific to certain species or species groups identified in project conditions; the purpose of those surveys was to improve the understanding of the occurrence and distribution of those species within the CPA and to determine whether additional mitigation measures are needed to avoid or reduce adverse effects. The results of studies completed up to December 2022 are summarized below. This Construction WMMP builds on the mitigation measures identified in the Application and findings of the pre-construction surveys.

### 4.1 TERRESTRIAL BIRDS

The Project area provides habitat for a variety of breeding, migrating, and overwintering raptors and owls, gamebirds, and songbirds. Suitable nesting and foraging habitat for diurnal raptors (hawks, falcons, vultures, eagles) and nocturnal and diurnal owls occur in the area surrounding the Project. Two subcomponents of the avifauna valued component in the Application are 1) platform and cavity-nesting birds (e.g., sp'akw'us [bald eagle; *Haliaeetus leucocephalus*], osprey [*Pandion haliaetus*], shá7yu [western screech-owl; *Megascops kennicottii kennicottii*]), and 2) passerines (e.g., swallows, flycatchers, songbirds), and Columbiformes (e.g., pigeons).

Bird SOMC include:

- sooty grouse (*Dendragapus fuliginosus*; confirmed)
- smeḱw'á7 (great blue heron [*Ardea herodias fannini*; confirmed])
- nsxíipim (northern goshawk [*Accipiter gentilis laingi*; possible])
- shá7yu (western screech-owl [possible])
- nsexá7xem (band-tailed pigeon [*Patagioenas fasciata*; confirmed])
- kw'ekw'ík'w'ehat' (barn swallow [*Hirundo rustica*; confirmed])
- olive-sided flycatcher (*Contopus cooperi*; confirmed)
- common nighthawk (*Chordeiles minor*; possible)
- pileated woodpecker (*Dryocopus pileatus*; confirmed).

<sup>12</sup> SOMC are species listed as red or blue in BC, listed on Schedule 1 of SARA, and species of interest to Skwxwú7mesh Úxwumixw (Squamish Nation)

The proposed clearing area includes suitable habitat for ground-nesting bird species (e.g., killdeer [*Charadrius vociferus*], spotted sandpiper [*Actitis macularius*]) that use substrates such as gravel for their nests. A killdeer nest was observed in the CPA during baseline surveys (Golder, 2014b) and pre-demolition surveys in 2021 (Stantec, 2023a), and killdeer and spotted sandpiper nests were observed during the pre-demolition surveys in 2023 (Stantec, 2023b).

The following sections describe SOMC-specific surveys that were completed post-Application up to July 2023.

#### 4.1.1 Nsxípm (Northern Goshawk)

Nsxípm (northern goshawk) uses large tracts of mature forest for nesting and hunting (COSEWIC, 2013). Mature forest within the CPA is highly fragmented and restricted to patches adjacent to the marine foreshore south and east of the CPA, adjacent to Mill Creek (WLNG 2015). Standard call-playback surveys (i.e., RISC, 2001) for nsxípm (northern goshawk) were undertaken in June and July 2015 in mature forest areas to determine if the species was present within the CPA (Hemmera, 2015a). There were 20 stations surveyed twice and two stations surveyed once; the surveys for nsxípm (northern goshawk) resulted in no detections (Hemmera, 2015a).

#### 4.1.2 Shá7yu (Western Screech-Owl)

Standard call-playback surveys for shá7yu (western screech-owl) were undertaken in June and July 2015 (Hemmera, 2015b). These surveys resulted in the detection of one adult male at the northern end of the CPA, on adjacent Crown temíxw (land). Three sets of call-playback surveys were completed at 11 call-playback stations in April 2019 (Hemmera, 2019). An autonomous recording unit was also deployed in 2019 at the location where the owl in 2015 was detected; no shá7yu (western screech-owl) were detected during the 2019 surveys (Hemmera, 2019). In March 2023 Fortis BC completed shá7yu (western screech-owl) surveys using call-playback methods within the CPA; no western screech-owls were detected.

Forest habitat greater than 80 years of age was mapped in the CPA in 2019 (Hemmera, 2019) and habitat assessments in mature forested areas within the CPA were completed in June 2021 to assess nesting habitat suitability. Assessment methods followed Wildlife Habitat Rating Standards (RIC 1999), habitat description in RISC (2006), and site assessments developed by Tripp and Welstead (2019). Trees and snags with potential to support a shá7yu (western screech-owl) nest were identified and recorded at this time (Stantec, 2023a). Findings are presented in Figure 3. Suitable sites contained mature second growth forest with wildlife trees (i.e., snags with one or more suitable cavities to support nesting) and an open flyway with security cover available. Moderate and high suitability habitat was identified within the CPA but primarily outside the proposed clearing area. Trees and snags with potential to support a shá7yu (western screech-owl) nest are located within 100 m of the proposed clearing area, including one site in the western portion at the edge of the proposed clearing area; see Figure 3).

#### 4.1.3 Sp'ákw'us (Bald Eagle)

One sp'ákw'us (bald eagle) nest is in a Douglas-fir tree on the north side of Woodfibre Creek, approximately 150 m upstream from where it flows into Átl'ka7tsem (Howe Sound) (Figure 3). Surveys in 2019, 2020, 2021, and 2022 confirmed that the nest was active in each of those years (Hemmera, 2020; Stantec, 2023a). No other raptor nests were found during surveys in 2021.

#### 4.1.4 Kw'ekw'íkwehatl' (Barn Swallow)

A kw'ekw'íkwehatl' (barn swallow) pair count and nest survey was completed in June 2021 by a QP experienced with swallows (Stantec, 2023a). Kw'ekw'íkwehatl' (barn swallow) was confirmed nesting inside and on buildings planned for demolition (Figure 3). These include the warehouse, pumphouse, and leachate buildings on beams, in rafters of the ceiling, and on cement walls. Approximately 15 pairs were observed in early June 2021 prospecting for nest sites, collecting nest materials, and building nests. A thorough search of nests inside of buildings was not completed because of safety risks associated with entering derelict buildings; the QP concluded, however, that each building likely supports several nesting kw'ekw'íkwehatl' (barn swallow) pairs. Nests were not found on or under bridges within the CPA over Mill Creek, the QP determined that the bridges do not provide adequate supporting structures for swallows to attach their nests. A survey of the buildings in the existing industrial site was completed in November and December 2022; a total of 37 kw'ekw'íkwehatl' (barn swallow) nests in various condition (from fully intact, partially intact, to only a mud outline) were found in or on buildings (see Figure 3 for general locations of nests) (Stantec, 2022). A barn swallow compensation structure with artificial nest cups was installed in April 2023 near the existing landfill (Figure 3) (see Section 5.4 for further details).

#### 4.1.5 Nseǰá7ǰem (Band-tailed Pigeon)

A QP surveyed the CPA for potential mineral sites for nseǰá7ǰem (band-tailed pigeon) in June 2021 (Stantec, 2023a). Characteristics of potential mineral sites in a coastal environment, that is, presence of mineralized soils and streams, upwelling water, mineral residue (COSEWIC 2008; ECCC 2019b) were determined to be lacking within the CPA. One potential mineral site was identified along a tributary of Mill Creek where at least 20 pigeons were present. This site is at the perimeter of the CPA and outside of proposed clearing areas (Figure 3).

#### 4.1.6 Pileated Woodpecker Tsíptspí7lhtn (Nest)

Surveys for pileated woodpecker tsíptspí7lhtn (nest) cavities were completed by a qualified and experienced biologist in July 2023. Trees within the proposed clearing area (see Figure 3) were visually searched for evidence of pileated woodpecker use. Use was determined using the Pileated Woodpecker Cavity Identification Guide (ECCC, 2023b) and cavities were documented as feeding, roosting, or nesting. In summary, there is evidence of pileated woodpecker feeding and potentially roosting activity: feeding cavities were observed within the eastern and southwestern portion of the proposed clearing area and a tree with potential roosting cavities was observed in the southwest portion just outside the proposed clearing area. No tsíptspí7lhtn (nest) cavities were observed. Pileated woodpeckers were detected by bird specialists during other wildlife surveys in June 2021 and June 2023, which further indicates use of

the area by this species. Tsíptspí7lhtn (nest) cavities are likely present elsewhere within the CPA but outside the proposed clearing area.

## 4.2 SEKW'EKW'INEXW TL'A SHKWEN (MARINE BIRDS)

Sekw'ekw'inexw tl'a shkwen (Marine birds) are species that depend on marine and coastal habitat for one or more of their life requisites. Seventy species of sekw'ekw'inexw tl'a shkwen (marine bird) are known to occur in the upper Átl'ka7tsem (Howe Sound) (Badzinski et al., 2008; Ricker and Turner, 2017; BC CDC, 2023; eBird, 2023) and are known or likely to occur within the CPA marine environment. Species include gulls, alcids (murrelets, murrelets, auklets), cormorants, diving ducks, loons, grebes, geese, swans, and shorebirds.

Based on habitat characteristics, the CPA marine environment provides foraging habitat for gulls, diving ducks, loons, grebes, geese, and swans (Golder, 2014a; Stantec, 2023b). The rocky shoreline provides foraging habitat for killdeer, spotted sandpiper (*Actitis macularius*), and smeḵw'á7 (great blue heron); however, the deep bathymetry of the marine environment does not supply high value shorebird foraging habitat such as shallow mudflats (Golder, 2014a). Killdeer and spotted sandpiper nest in the CPA (Stantec, 2023a,b; Stantec biologists, pers. obs., 2023). Other birds that use or potentially use the CPA marine environment for foraging include (Ricker and Turner, 2017; Stantec, 2023a; eBird, 2023): raptors, kingfisher, swallows, purple martin (*Progne subis*), American dipper (*Cinclus mexicanus*), and common nighthawk.

There are no federal or provincial protected areas located near the CPA; however, the Skwelwílem (Squamish Estuary Wildlife Management Area) is located on the Squamish estuary, which provides wintering, migration, feeding, and breeding habitats for waterfowl and shorebirds, as well as for raptors, passerines, and other species (Golder, 2014a).

There are no sekw'ekw'inexw tl'a shkwen (marine bird) colonies in the CPA or within 300 m of the Project-related vessel traffic route (Golder, 2014a). Sekw'ekw'inexw tl'a shkwen (Marine birds) likely forage in the CPA marine environment and along the vessel traffic route during the breeding season. Sekw'ekw'inexw tl'a shkwen (Marine birds) occur in Átl'ka7tsem (Howe Sound) throughout the year but are most abundant during the spring (March–May) and fall (September–November) migration and winter months (December–February) (Badzinski et al., 2008; Ricker and Turner, 2017). In the spring, the slhawt' (herring) spawn in intertidal and shallow subtidal waters can attract many sekw'ekw'inexw tl'a shkwen (marine birds), mostly gulls (*Larus* spp.), sea ducks, and other diving species. In the fall, cháyilhen (salmon) migrating to spawning streams (e.g., Squamish River watershed) attract marine wildlife, including birds. In early November 2022, hundreds of gulls were observed resting and feeding at night and pre-dawn in large flocks along the water taxi route between Skwḵwú7mesh (Squamish) and the Project site (Stantec, 2023b).

Mitigation M5.17-8 from Table 22-1 of the Application requires the development of a MBMP, which is provided in Section 5.3. Woodfibre LNG completed pre-construction inexwantas (monitoring) of sekw'ekw'inexw tl'a shkwen (marine birds) in the CPA in 2022 to understand potential bird collision risk and to inform mitigation measures. Sekw'ekw'inexw tl'a shkwen (Marine bird) data was collected in February, March, April, August, November, and December 2022 (Stantec, 2023). Sekw'ekw'inexw tl'a shkwen (Marine birds) detected in the CPA marine environment included (Stantec, 2023):

gulls (*Larus* spp.), cormorants, goldeneye (*Bucephala* spp.), mergansers (*Mergus* spp.), loons (*Gavia* spp.), grebes (*Podiceps* spp.), surf scoter (*Melanitta perspicillata*), harlequin duck (*Histrionicus histrionicus*), and trumpeter swan (*Cygnus buccinator*), Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), killdeer, spotted sandpiper, smeḵw'á7 (great blue heron), and American dipper.

The highest numbers of seḵw'eḵw'inexw t'l'a shkwen (marine birds) were present in spring, while summer had the fewest individuals recorded. Gulls were present year-round but with highest numbers in winter, sea ducks were present primarily in spring, and geese and swans were absent during fall and winter. There is limited shorebird habitat within the CPA, which is consistent with low detections of shorebirds (Stantec, 2023b).

#### 4.2.1 Piyís (Marbled Murrelet)

Piyís (Marbled murrelet [*Brachyramphus marmoratus*]) is provincially Blue-listed and federally designated as threatened on Schedule 1 of SARA. There are terrestrial geographic location polygons that could contain critical habitat for piyís (marbled murrelet) nesting in the watersheds of Mill and Woodfibre Creeks within the CPA; however, no polygons overlap the proposed clearing areas (Figure 3; ECCC, 2023c). Provincial suitable habitat, as identified in the Marbled Murrelet Order (FLNRORD, 2021) does not overlap the CPA; however, the Ministry of Water, Land and Resource Stewardship re-surveyed the Lower Squamish landscape unit in spring 2023 and identified two areas of suitable habitat within 1 km of the CPA: one is approximately 815 m east of the CPA and the other is approximately 720 m north of the CPA (MWLRS, 2023a). Historical forest harvesting practices and other land developments have limited the availability of old forest habitat used by piyís (marbled murrelet) in the Lower Squamish landscape unit where the Project occurs (FLNRORD, 2018a).

Piyís (Marbled murrelet) has been detected in upper Átl'ḵa7tsem (Howe Sound) (Ricker and Turner, 2017; eBird, 2023) and occurrence is considered irruptive (fluctuations in numbers from year to year) in winter, low in spring and fall, and medium in summer (Ricker and Turner, 2017; Birds Canada, 2023). Piyís (Marbled murrelet) was not observed within the CPA marine environment during baseline surveys (Golder, 2014a; Hemmera, 2015c) or during pre-construction seḵw'eḵw'inexw t'l'a shkwen (marine bird) surveys completed in 2022 (Stantec, 2023). Helicopter-based, low-level aerial assessments have indicated that nesting habitat is limited within the Mill Creek and Woodfibre Creek watersheds (WLNG, 2015). There were no confirmed observations during the 2015 radar survey, suggesting that nesting does not occur or is low use, and nest commuting behaviour in the CPA is likely low (Hemmera, 2015c).

Additional habitat suitability assessments were completed in 2021 within the CPA following Environment and Climate Change Canada's (ECCC's) methods for ground plot habitat assessments (Manning et al., 2018). Data collected included site- and landscape-level biophysical attributes of nesting critical habitat consistent with the Recovery Strategy (ECCC, 2023c). Survey results identified the presence of site-level biophysical attributes, such as mature ḵwáy'tsay (hemlock) and cedar trees, with suitable platforms at some plots within the CPA at a microhabitat scale (Stantec, 2023a). However, in the context of landscape-level habitat requirements for piyís (marbled murrelet), the forested areas within the CPA are considered low suitability because biophysical attributes that are present are non-uniformly distributed, the size of forest patches is small and within a fragmented landscape influenced by forestry

activities, predation risk is high due to presence of corvids (crows, ravens, jays), and the forest patches are within 400 m of the coastline which is typically not used by piyís (marbled murrelets) due to increased predation and inadequate forest structures (Burger et al., 2000; Rodway and Regehr, 2002). Given this, and that the nearest provincially-mapped suitable habitat polygons are approximately 720 m north of the CPA and approximately 815 m east of the CPA (MWLRS 2023a), the potential for adverse effects on piyís (marbled murrelet) from construction activities is low and limited to sensory disturbance during the nesting season.

#### 4.3 SKÁP'KAP'TSAYLH (BATS)

Based on range and habitat preferences, there are nine skáp'kap'tsaylh (bat) species known or likely to occur in the CPA, including two SOMC: Townsend's big-eared bat (*Corynorhinus townsendii*) is provincially Blue-listed, and little brown myotis (*Myotis lucifugus*) is listed as endangered on Schedule 1 of SARA (Table 7). While Townsend's big-eared bat was not recorded in the Project area during baseline studies, little brown myotis was confirmed as present; this species is the subject of FDS condition 9 (see Table 2) and is the focal species for skáp'kap'tsaylh (bat) management within the Construction WMMP.

Skáp'kap'tsaylh (Bat) roosting habitat assessments were completed in May 2020 within areas to be cleared (Hemmera, 2020). Surveys identified four sites with habitat attributes considered moderate to high suitability for roosting (Hemmera, 2020). An additional skáp'kap'tsaylh (bat) roosting habitat assessment was completed in 2021 to identify potential roost sites within the areas to be cleared and inform mitigation measures, such as avoidance, setbacks, and potential habitat loss mitigation measures (Stantec, 2023a). Sites included trees with cavities or sloughing bark, rock walls with crevices, and buildings planned for demolition. Potential roost sites and a potential hibernation site are shown on Figure 4 and details are provided in Stantec (2023a). The powerhouse was identified as a site that could support hibernating and maternity-roosting skáp'kap'tsaylh (bats) (Stantec, 2023a).

Skáp'kap'tsaylh (Bat) surveys were completed between October and December 2022 to determine the use of buildings by skáp'kap'tsaylh (bats) (Stantec, 2022). Swarming, exit count, acoustic, and hibernacula surveys were undertaken. Acoustic skáp'kap'tsaylh (bat) activity was detected in the warehouse portion of the powerhouse & warehouse in November 2022. Acoustic analysis from ultrasonic acoustic recording units (uARUs) determined the skáp'kap'tsaylh (bats) were likely Californian myotis (*Myotis californicus*). UARUs remained active in the powerhouse & warehouse into December and no further activity was detected, indicating the skáp'kap'tsaylh (bats) had either left the building or had entered hibernation within the building. Swarming and exit count surveys in November detected no skáp'kap'tsaylh (bat) activity at the exterior of the buildings. Hibernacula surveys were performed with the assistance of a drone and two areas were identified in the warehouse portion of the powerhouse & warehouse as potential hibernacula. Surveys from November 2022 to April 2023 included building inspections for bats, guano collection, passive monitoring using uARUs, and a dusk emergence survey around the powerhouse & warehouse (Stantec, 2023c). Three, possibly four, species were identified foraging and flying in late March and early April 2023: silver-haired bat, possibly big brown bat, Yuma myotis, and California myotis (Stantec, 2023c). Guano samples collected from inside two buildings were inconclusive likely due to degradation of DNA in the old samples.

**WOODFIBRE LNG PROJECT:  
WILDLIFE MANAGEMENT AND MONITORING PLAN – CONSTRUCTION PHASE**

September 17, 2025

**Table 4: Ská'p'k'ap'tsaylh (Bat) Species Known or Likely to Occur in the Certified Project Area**

Common Name	Scientific Name	BC List	Federal List	Maternity Roost Preference May – August	Winter Roost (Hibernacula) Preference November – March/April
Big brown bat	<i>Eptesicus fuscus</i>	Yellow	Not at risk	Trees (dead), rock crevices and outcrops, cliffs, buildings, bridges, bat boxes	Buildings, mines, rock crevices
Silver-haired bat	<i>Lasionycteris noctivagans</i>	Yellow	Not at risk <sup>a</sup>	Trees (on surface of bark, live trees)	Trees, mines, buildings, migrates
Hoary bat	<i>Lasiurus cinereus</i>	Blue	Not at risk <sup>a</sup>	Trees (dead, live) foliage, potentially bridges	Migrates
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	Blue	Not at risk	Trees, cliffs, mines, buildings, bat boxes	Mines, caves
Yuma myotis	<i>Myotis yumanensis</i>	Blue	Not at risk	Trees (dead), rock crevices and outcrops, mines, buildings, bridges, bat boxes	Mines, buildings
California myotis	<i>Myotis californicus</i>	Yellow	Not at risk	Trees (dead) behind bark, rock crevices and outcrops, mines, bridges, sometimes buildings, bat boxes	Buildings, mines, caves
Long-eared myotis	<i>Myotis evotis</i>	Yellow	Not at risk	Trees (dead), stumps, rock crevices and outcrops, cliffs, sometimes buildings, bat boxes	Mines, buildings, trees (dead), rock crevices
Little brown myotis	<i>Myotis lucifugus</i>	Blue	Endangered	Trees (dead) behind bark, in cavities, rock crevices and outcrops, cliffs, mines, buildings, bridges, bat boxes	Mines, caves, root wads, stumps
Long-legged myotis	<i>Myotis volans</i>	Yellow	Not at risk	Trees (dead), stumps, rock crevices and outcrops, cliffs, sometimes buildings	Mines, caves

Notes:

BC List: Red = endangered or threatened; Blue = special concern; Yellow= not at risk (BC CDC, 2023)

Federal List: Species at risk on Schedule 1 of the SARA (SRPR, 2023).

<sup>a</sup> Species has recently been assessed by COSEWIC as endangered (COSEWIC, 2023); however, the species is not yet listed on Schedule 1 of SARA

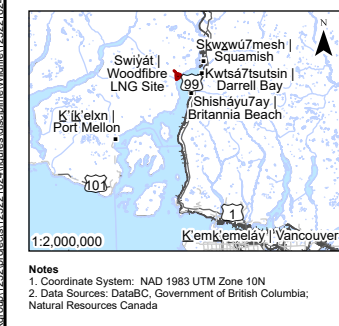
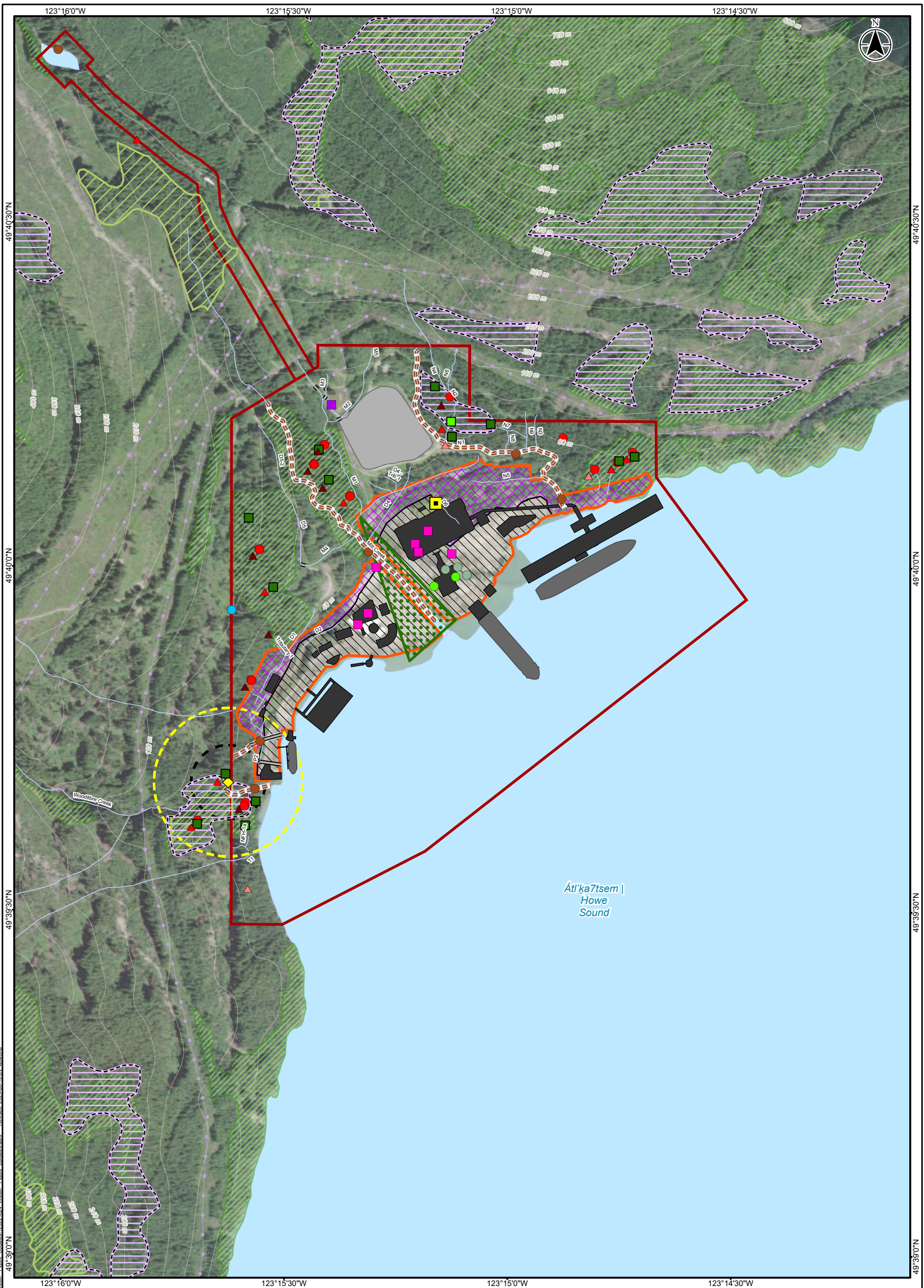
Roosting preference per Best Management Practices for Bats of British Columbia (MOE, 2016)

## 4.4 AMPHIBIANS AND REPTILES

There are nine amphibian species known or likely to occur in the CPA (Golder, 2014b). Of these, three are SOMC: coastal tailed frog (*Ascaphus truei*), northern red-legged frog (*Rana aurora*), and western toad (*Anaxyrus boreas*). Coastal tailed frog is federally listed as special concern on Schedule 1 of SARA and occurs in and near rocky, mountainous streams and has been confirmed as present in streams in the CPA (Figure 3). Where present, coastal tailed frog occurs year-round. Northern red-legged frog is federally listed as a species of special concern on Schedule 1 of SARA and is provincially Blue-listed. Western toad is federally listed as special concern on Schedule 1 of SARA.

The forested areas surrounding the Project may offer suitable upland habitat for adult northern red-legged frog and western toad. Both species require aquatic habitats for breeding, and this can be provided by human-made waterbodies such as ponds and ditches. Northern red-legged frog was not detected during visual searches and eDNA sampling (Golder, 2014b, Keystone, 2021). Western toad was detected using eDNA sampling (Keystone, 2021) and adult toads were detected in April and May 2023 during demolition activities, including pairs in amplexus ready to lay eggs (Stantec biologists and Woodfibre LNG Environmental Coordinator, pers. obs., 2023).

Reptiles known or likely to occur in the CPA include terrestrial gartersnake (*Thamnophis elegans*), northwestern gartersnake (*T. ordinoides*), common gartersnake (*T. sirtalis*), and northern alligator lizard (*Elgaria coerulea*). Gartersnakes and northern alligator lizard were detected in the northern section of the proposed clearing area in May 2023 (Stantec biologists and Woodfibre LNG Environmental Coordinator, pers. obs., 2023) (Figure 3). There is potential for a élhqáy (snake) hibernaculum within the CPA (Stantec biologists, pers. obs., 2023).



- |   |   |  |   |   |
|---|---|--|---|---|
| <p><b>Amphibians and Reptiles</b></p> <ul style="list-style-type: none"> <li>Stream with Coastal tailed frog detected</li> <li>Western Toad, Northern Alligator Lizard, and Potential Snake Hibernaculum (2023)</li> <li>Observation (prior to 2023)</li> <li>Coastal tailed frog</li> <li>Pacific Treefrog (Tadpole)</li> <li>Amphibian Breeding Site</li> </ul> | <p><b>Western Screech-Owl</b></p> <ul style="list-style-type: none"> <li>Suitable nesting habitat (Hemmera 2019)</li> <li>Nesting Habitat Suitability Rating</li> <li>High (1)</li> <li>Moderate (2)</li> <li>Low (3)</li> <li>Potential Nest Site</li> <li>Band-tailed Pigeon</li> </ul> | <p><b>Barn Swallow</b></p> <ul style="list-style-type: none"> <li>Nest sites (prior to 2023)</li> <li>Nest Structure</li> </ul> <p><b>Bald Eagle</b></p> <ul style="list-style-type: none"> <li>Nest (Protected Year Round)</li> <li>100m Setback when Unoccupied</li> <li>200m Setback when Occupied</li> </ul> | <p><b>Marbled Murrelet</b></p> <ul style="list-style-type: none"> <li>Geographic Location Polygon for Terrestrial Critical Habitat</li> <li>Nesting Habitat Suitability Rating</li> <li>Moderate (2)</li> <li>Low (3)</li> <li>Watercourse</li> <li>Culvert</li> <li>Old Growth Management Areas</li> </ul> | <ul style="list-style-type: none"> <li>Green Zone</li> <li>Certified Project Area</li> <li>Existing Landfill</li> <li>Transport Vessel</li> <li>Project Components</li> <li>Area for Clearing and Grubbing</li> <li>Area for Deforest, Clearing and Grubbing</li> <li>Proposed Clearing Area</li> </ul> |
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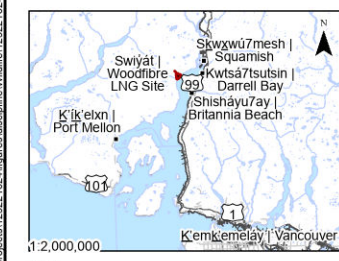
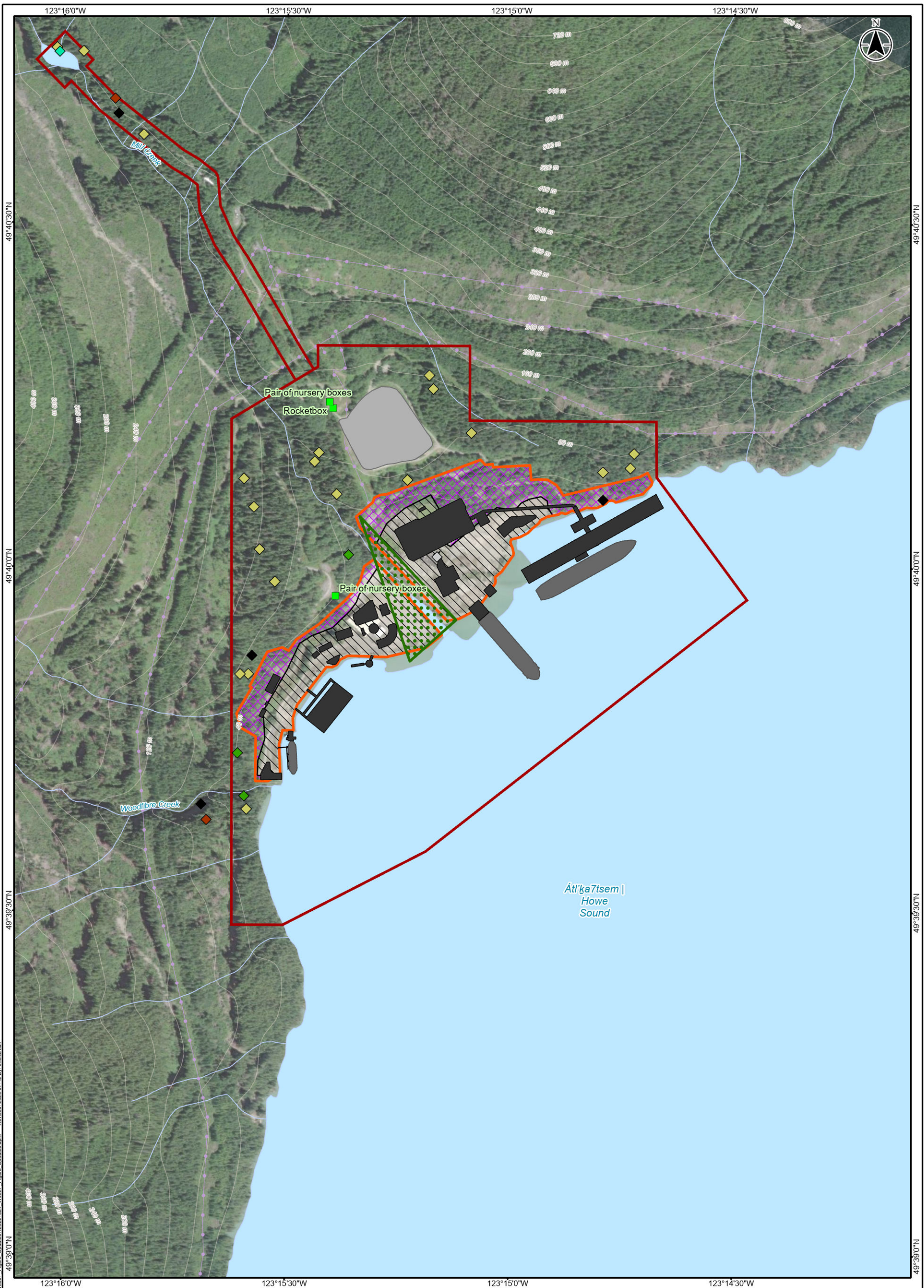
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**Stantec**

Project Location: Swiyát | Project Number: 123221624  
Prepared by KWONG on 20230816  
Requested by JPRESTON on 20230816

Client/Project/Report: Woodfire LNG Limited  
Woodfire LNG Project  
Wildlife Management and Monitoring Plan  
- Construction Phase  
Figure No.: 3  
Title: Sensitive Habitats and Habitat Features for Birds, Amphibians, and Reptiles in the Certified Project Area

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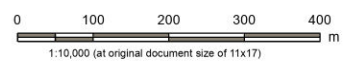


- Potential Bat Roost Habitat Feature**
- ◆ Live Tree
  - ◆ Penstock
  - ◆ Rock Face
  - ◆ Snag

- ◆ Stump
- Potential Bat Hibernation Feature
- Bat Roosting Structures Installed
- Green Zone
- Certified Project Area

- Transmission Line
- Watercourse
- Topographic Contour
- Waterbody
- Existing Landfill
- Transport Vessel

- Project Components**
- Clearing Areas**
- Area for Clearing and Grubbing
  - Area for Deforest, Clearing and Grubbing
  - Proposed Clearing Area



Client/Project/Report  
 Woodfibre LNG Limited  
 Woodfibre LNG Project  
 Wildlife Management and Monitoring Plan  
 - Construction Phase

Project Location: Swiyat  
 Project Number: 123221624  
 Prepared by: EHERTZMAN on 20230529  
 Requested by: CLION on 20230527

Figure No. **4**  
 Title  
**Sensitive Habitats and Habitat Features for Bats in the Certified Project Area**

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## 4.5 TERRESTRIAL MAMMALS

Based on a review of range maps and habitat types present in the Project area, several species of mammal, including carnivores, meso-carnivores, and ungulates, are known or likely to occur in the CPA.

Mammals known to occur in the CPA are:

- Black-tailed deer (*Odocoileus hemionus*)
- Black bear (*Ursus americanus*)
- Coyote (*Canis latrans*)
- River otter (*Lontra canadensis*)
- Wolf (*Canis lupus*)
- Mink (*Neovison vison*)
- Bobcat (*Lynx rufus*)

## 5.0 SEKW'EKW'INEXW (WILDLIFE) MITIGATION MEASURES

This section describes the sekw'ekw'inexw (wildlife) mitigation measures that are applicable to the construction phase of the Project. The mitigation measures are based on project conditions of approval, project commitments, and industry and government BMPs and guidelines. As indicated in the concordance tables in Section 1.0, the details of some mitigation measures are provided in the CEMP (e.g., Erosion Prevention and Sediment Control Plan) and, where relevant, a linkage to measures in the CEMP is provided below. In addition to the CEMP, other management plans relevant to sekw'ekw'inexw (wildlife) include the Invasive Plant Management Plan, Water Management Plan, Marine Transport Management Plan, and Marine Mammal Management and Monitoring Plan.

The mitigation of adverse Project effects on sekw'ekw'inexw (wildlife) outlined in the Construction WMMP will be achieved through adherence to best practices and guidelines, Project design, avoidance of sensitive areas and sensitive periods, site-specific and species-specific mitigation measures, compensation (i.e., habitat loss mitigation measures, such as bat boxes), and environmental training/education. Details are provided in the following sections.

### 5.1 BEST MANAGEMENT PRACTICES AND GUIDELINES

The Province of BC has published several environmental BMPs and guidelines applicable to sekw'ekw'inexw (wildlife) and the Project. These documents contain guidance that is considered acceptable to regulators and contributes to corporate due diligence in environmental protection. There are also federal recovery strategies for endangered or threatened species and management and/or action plans for species of special concern.

Key sekw'ekw'inexw (wildlife) guidance documents that were used to prepare the Construction WMMP:

- Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia (MOE, 2014a)
- Best Management Practices for Amphibian and Reptile Salvages in British Columbia (FLNRO, 2016)
- Guidelines for Amphibian and Reptile Conservation During Road Building and Management Activities in British Columbia (MECCS, 2020)
- Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia (MOE, 2013a)
- Best Management Practices for Bats in British Columbia (MOE, 2016)
- Best Management Practices for Bat Boxes in British Columbia (BC Community Bat Program, 2019)
- Guidelines to Avoid Harm to Migratory Birds (ECCC, 2023a)
- Environmental Protection and Management Guideline (OGC, 2021)
- Identified Wildlife Management Strategy (MWLAP, 2004)
- Beneficial management practices for Barn Swallow (*Hirundo rustica*) (TBCSCP, 2014a)

- Implementation Plan for the Recovery of Marbled Murrelet in British Columbia (FLNRORD, 2018b)
- Amended Recovery Strategy for the Marbled Murrelet (*Brachyramphus marmoratus*) in Canada (ECCC, 2023c)
- Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), the Northern Myotis (*Myotis septentrionalis*), and the Tri-colored Bat (*Perimyotis subflavus*) in Canada (ECCC, 2018b)
- Recovery Strategy for the Common Nighthawk (*Chordeiles minor*) in Canada (EC, 2016a)
- Recovery Strategy for the Olive-sided Flycatcher (*Contopus cooperi*) in Canada (EC, 2016b)
- Recovery Strategy for the Northern Goshawk *laingi* subspecies (*Accipiter gentilis laingi*) in Canada (Parks Canada Agency, 2018)
- Recovery plan for the Western Screech-Owl, *kennicottii* subspecies (*Megascops kennicottii kennicottii*) in British Columbia (MOE, 2013b)
- Management Plan for the Great Blue Heron *fannini* subspecies (*Ardea herodias fannini*) in Canada (ECCC, 2020a)
- Management Plan for the Band-tailed Pigeon (*Patagioenas fasciata*) in Canada (ECCC, 2019a)
- Management Plan for the Western Toad (*Anaxyrus boreas*), Calling and Non-calling Populations, in Canada (ECCC, 2020b)
- Management Plan for the Northern Red-legged Frog (*Rana aurora*) in Canada (ECCC, 2017)
- Management Plan for the Coastal Tailed Frog (*Ascaphus truei*) in Canada (ECCC, 2018c)
- Guidelines for Amphibians and Reptile Conservation during Urban and Rural Land Development in British Columbia (FLNRO, 2014)
- Guidelines for Amphibian and Reptile Conservation during Road Building and Management Activities in British Columbia (MECCS, 2020)

## 5.2 PROJECT DESIGN MEASURES

Project design measures that are applicable to construction of the LNG facility are described in the following sections.

### 5.2.1 Green Zone

The first step of the provincial and federal mitigation hierarchy is to avoid adverse effects on environmental values (MOE, 2014b; Environment Canada, 2012). The establishment of the Green Zone avoids some effects on *sekw'ekw'inexw* (wildlife) by maintaining and enhancing a portion of the CPA.

Woodfibre LNG will establish the Green Zone (see Figure 4), which is an area adjacent to Mill Creek where riparian habitat will be protected (mitigation M5.14-4) and enhanced (mitigation M5.14-3) following Project construction. In compliance with the Certified Project Description, the Green Zone will be planted with suitable native vegetation upon completion of the construction phase. The Green Zone will not contain permanent Project buildings, but utilities, including power, process piping, communications cables, and roads and bridges, will be present within the Green Zone. The approach to planting

the Green Zone will be defined in the Green Zone Restoration Plan, which Woodfibre LNG will co-write with the Skwxwú7mesh Úxwumixw (Squamish Nation) in accordance with the SNEAA.

## 5.2.2 Lighting

Woodfibre LNG has designed, and will install and maintain, temporary exterior lighting during construction of the Project and during operation of the floatel during construction. Light design will follow the *International Commission on Illumination's CIE 150:2017 Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations* (Pollard et al., 2017) (or subsequent standards), but with consideration for meeting marine transportation and aviation safety requirements.

Design measures intended to reduce light trespass (i.e., light extending beyond a target) and skyglow (i.e., illumination of the night sky) are described in the Visual Quality Management Plan. Subject to safety and operational requirements, Woodfibre LNG will use blue and green lighting at night instead of red or white lighting and install directional lighting with shades to reduce attractiveness to birds (mitigation M5.12-5). This is consistent with the lighting standards in North America (e.g., Sustainable Development Code in the U.S. [Jarchow et al., 2021] and American Bird Conservancy's Bird-friendly Building Design [American Bird Conservancy 2019]). Woodfibre LNG will avoid the use of lighting that produces ultraviolet light to reduce the attractiveness of lights to insects, which could lead to the attraction of bats (mitigation M5.13-2).

## 5.2.3 Bird Strikes on Buildings

Woodfibre LNG will review the design of building facilities (including the floatel) with a QP experienced in avian biology and include mitigation measures to reduce the potential for bird strikes and bird mortality, where recommended by the QP (mitigation M5.12-9). Design approaches to reduce bird strikes on buildings include limiting the amount of glass and applying tints or façades to windows to provide visual cues and increase visibility of glass. Other measures include turning off lights in buildings at night when lights are not required. These measures are consistent with the lighting and building standards in North America (e.g., Sustainable Development Code in the U.S. [Jarchow et al., 2021]) and American Bird Conservancy's Bird-friendly Building Design [American Bird Conservancy, 2019]).

## 5.2.4 Bird Electrocution Potential from Powerlines

A QP experienced in avian biology will provide recommendations on mitigation measures in the design of the power line, including conductor layout, to reduce the potential for bird electrocution (mitigation M5.12-7). The QP will consider guidance in Bernardino et al. (2018) and APLIC (2012) when making recommendations to Woodfibre LNG's construction contractor.

### 5.3 GENERAL MITIGATION MEASURES

Mitigation measures in Table 5 are designed to reduce displacement and direct mortality of sekw'eḵw'inexw (wildlife), and to limit human-sekw'eḵw'inexw (wildlife) interactions. The measures are intended to fulfill project conditions and commitments relating to sekw'eḵw'inexw (wildlife), as described in Section 1.0. Sekw'eḵw'inexw (wildlife) sensitive periods and recommended setbacks are provided where relevant (Table 6). If recommended setbacks cannot be followed, a QP will be engaged, in consultation with appropriate regulatory authorities, when applicable, to determine alternative or additional mitigation measures, as needed.

Most vegetation clearing will occur outside of the primary nesting period for birds, which is the primary physical activity that could result in displacement and direct mortality to nesting birds (Table 6; mitigation M5.12-4 and M5.17-1). Grubbing, stripping, and grading activities, and mobile equipment operations may also be a risk to vulnerable sekw'eḵw'inexw (wildlife) such as ground-nesting birds (e.g., killdeer), swallows that nest on equipment and infrastructure, habitat features (e.g., nseḵá7ḵem [band-tailed pigeon] mineral sites), amphibians, reptiles, and mammals (during maternity denning period). It is likely that birds nest within the CPA and there is potential for amphibians and reptiles to enter the worksite during construction activities. Surveys of these 'simple' habitats will be undertaken to assess risk and to implement mitigation measures for vulnerable sekw'eḵw'inexw (wildlife).

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**Table 5: General Mitigation Measures for Seḵw'eḵw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
<b>General Seḵw'eḵw'inexw (Wildlife)</b>		
Human-seḵw'eḵw'inexw (wildlife) interactions	<ul style="list-style-type: none"> <li>• Workers will avoid direct interactions with seḵw'eḵw'inexw (wildlife) unless crew safety is at risk.</li> <li>• Project personnel and contractors will not feed, harass, or approach seḵw'eḵw'inexw (wildlife).</li> <li>• If seḵw'eḵw'inexw (wildlife) enter a work area, workers will stop work in that immediate area and allow the animal(s) to exit the work area without herding or harassing.</li> <li>• Human-seḵw'eḵw'inexw (wildlife) conflicts and incidents, including the use of deterrents, will be reported to the EM and documented. Seḵw'eḵw'inexw (wildlife) observations and incidents will be documented using the Wildlife Observation and Incident Reporting Form (Appendix A) and maintained in a database. Incident reports will be reviewed quarterly by a QP during construction to determine if additional mitigation or inexwantas (monitoring) should be implemented. If additional mitigation or inexwantas (monitoring) is required, this Construction WMMP will be updated to reflect those requirements.</li> <li>• In the case of imminent risk of seḵw'eḵw'inexw (wildlife) mortality or risk to seḵw'eḵw'inexw (wildlife) health, the EM will verbally report incidents or potential incidents to the Woodfibre LNG Environmental Representative as soon as possible. If required, input from a QP will be requested.</li> <li>• No ch'áat'am (hunting), fishing, or gathering by Project personnel and contractors will be allowed in the immediate vicinity of Woodfibre CPA.</li> <li>• Workers will be required to report activities related to on-site seḵw'eḵw'inexw (wildlife) interactions. The EM will be responsible for documenting this information.</li> <li>• To reduce the likelihood or severity of potential vehicle-seḵw'eḵw'inexw (wildlife) interactions, the Contractor will implement maximum speed limits of 30 km per hour on roadways within the CPA.</li> </ul>	M5.12-1
Waste management	<ul style="list-style-type: none"> <li>• Food and stored garbage will be kept in bear-proof areas or bear-proof containers to limit attractants to seḵw'eḵw'inexw (wildlife); food waste will be transported to appropriate facilities.</li> <li>• Grease, oils, and fuels stored on-site will be stored in secured areas except where in use. The Waste Management Plan (see CEMP) will be followed.</li> </ul>	M5.12-1
Spills	<ul style="list-style-type: none"> <li>• Vehicles will be equipped with spill kits and fueled 30 m away from waterbodies (including creeks).</li> </ul>	M5.12-1

**WOODFIBRE LNG PROJECT:  
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**Table 5: General Mitigation Measures for Seḵw'eḵw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
Reporting mortalities	<ul style="list-style-type: none"> <li>If seḵw'eḵw'inexw (wildlife) mortality occurs within the CPA, the incident, and the suspected cause, will be tracked in a database by the EM and reported in the environmental inexwantas (monitoring) report. Seḵw'eḵw'inexw (wildlife) mortalities will be documented using the Wildlife Observation and Incident Reporting Form (Appendix A)</li> <li>If seḵw'eḵw'inexw (wildlife) mortality requires reporting to applicable agencies (i.e., a species listed on the BC Red list or Blue list, species at risk listed on Schedule 1 of SARA, migratory birds, dead bats), this will be done by Woodfibre LNG's Environmental Representative or QP. Species listed on the BC Red list or Blue List and species at risk on Schedule 1 of SARA will be reported to the BC CDC. BC Government <a href="#">website</a> provides information for what to do if a sick, injured, or dead wildlife is found, including which agency to report to. Sḵwḵwú7mesh Úxwumixw (Squamish Nation) and səllilwətał (Tseil-Waututh) Nation will be notified of wildlife mortality events and mortality risk concerns, and if wildlife mortalities are reported to the appropriate agency or authority. Appendix A provides contact information.</li> </ul>	M5.12-1
Salvage of coarse woody debris	<ul style="list-style-type: none"> <li>Coarse woody debris that has been removed in upland areas will be salvaged and relocated along linear features and within the Green Zone upon completion of the construction phase.</li> </ul>	M5.14-3

**Table 5: General Mitigation Measures for Sekw'ekw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
Blasting	<ul style="list-style-type: none"> <li>• Blasting operations will be completed in a manner that reduces disturbance of residences, businesses, and infrastructure and aquatic and terrestrial habitats from shock waves, noise, and vibration.</li> <li>• Blasting activities will conform to the Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters (Wright and Hopky, 1998).</li> <li>• Controlled blasting techniques will be applied to reduce the risk of impacts from fly-rock, vibration, and noise disturbance.</li> <li>• When blasting adjacent to environmentally sensitive areas, the contractor is to provide at least 24-hours' notice to agencies (e.g., BC Ministry of Forests, DFO) and to Woodfibre LNG.</li> <li>• Blasting activities will not be undertaken within 1 km of provincially-mapped marbled murrelet suitable habitat (MWLRS 2023b) during the marbled murrelet nesting season (late April to early September).</li> <li>• Noisemakers (e.g., bangers, air horns) may be used prior to detonation to deter birds from occurring in the 'blast zone' and to prevent harm. Noisemakers will be used sparingly and only after a visual scan is used to confirm that birds are present.</li> <li>• If other sekw'ekw'inexw (wildlife) are within the 'blast zone,' detonation will be delayed until they have moved away and to a safe distance.</li> <li>• Drills will be equipped with vacuums or screens to prevent distribution of dust during drilling.</li> <li>• Sediment control measures and retention ponds will be used to prevent siltation and pollution of wetlands, watercourses, and environmentally sensitive areas from drilling residues, oil, grease, and nitrate or nitrite blasting residues.</li> <li>• Inexwantas (Monitoring) of effects to aquatic and terrestrial habitats will be incorporated into the blasting plan so that corrective mitigation measures can be undertaken, if necessary.</li> </ul>	M5.12-6
<b>Avifauna (Birds)</b>		
General	<ul style="list-style-type: none"> <li>• If clearing, ground disturbance, or construction activities must occur in the CPA during the nesting periods identified in Table 6, tsíptspí7lhtn (bird nest) surveys supervised by a QP will be undertaken beforehand to avoid Project-related incidental take of birds or their nests. There are currently no provincial or federal standards for undertaking pre-clearing tsíptspí7lhtn (bird nest) surveys, but common methods used during pre-construction surveys will be deployed as outlined below.                             <ul style="list-style-type: none"> <li>– Surveys will be undertaken in the morning when birds are most active, but not during inclement weather (e.g., heavy rain, snow, or high wind). Surveys for shá7yu (western screech-owl) will be undertaken following provincial inventory standards (i.e., RISC, 2006), where feasible.</li> </ul> </li> </ul>	M5.12-1 M5.17-2

**Table 5: General Mitigation Measures for Seḵw’eḵw’inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
General (cont'd.)	<ul style="list-style-type: none"> <li>– The level of effort will generally be about one hour per hectare, although simple habitats (e.g., existing industrial site) may be surveyed relatively quickly and more complex and denser habitat may require more effort.</li> <li>– Nest searches will include both passive surveys (e.g., point counts) and active nest searches. Point count surveys provide surveyors with an understanding of species and territories that occur in the area, particularly in complex habitats (e.g., mature forest) and for species with nests that are not conspicuous. The objective of passive surveys is to inform the search effort required for active surveys or to narrow down the location of a nest or nest area. Passive surveys are not needed for species with conspicuous nests, such as bald eagle, woodpeckers, and barn swallow.</li> <li>– Nesting will be determined through the detection of an actual nest or through cues that suggest a nest is present (i.e., suspected nest). An actual nest does not need to be found for the surveyor to determine with confidence that a nest is present to recommend mitigation. This reduces the need to spend a long time searching for the actual nest and potentially damaging it, when bird cues alone (e.g., adult seen bringing food to a shrub and leaving without food) can indicate that a nest is present.</li> <li>– Searches will include up to 30 m buffer of the direct area to be disturbed to detect nests that could be disturbed in the edge by construction activities.</li> <li>– Nest surveys of the buildings scheduled for demolition and the existing industrial site, including stationary equipment, will be completed by a QP; methods will be determined by the QP in consideration of species expected to be nesting in industrial site and on equipment.</li> <li>– An experienced QP will determine an appropriate setback for each nest that is discovered. Setbacks (mitigation M5.17-2) will be established around active nests and the setback perimeter will be flagged in the field; the nest will not be flagged. The QP will use ECCC’s guidelines (ECCC, 2023a) on establishing buffer zones and setback distances and will consider site-specific conditions (e.g., type of disturbance, presence of security cover, species tolerance to disturbance) to determine an appropriate setback. Setbacks and buffers for raptor nests will consider the <i>Guidelines for Raptor Conservation during Urban and Rural Development in British Columbia</i> (MOE, 2013a). A minimum 30 m setback will be implemented for active marine tsiptspí7lhtn (bird nests) (mitigation M5.17-2).</li> <li>– Setbacks will be clearly marked in the field by the QP or EM.</li> <li>– No clearing activities will occur within established setbacks until after a QP has determined that the tsiptspí7lhtn (nest) status has changed from active to inactive (e.g., young have fledged and left the nest area).</li> </ul>	<p>M5.12-1 M5.17-2</p>

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**Table 5: General Mitigation Measures for Seḵw'eḵw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
General (cont'd.)	<ul style="list-style-type: none"> <li>– In areas that have been searched and no nests or nesting activity was confirmed, the clearing crew will have 48 hours to commence clearing activities and up to 7 days to complete clearing. If 7 days elapses and clearing is not complete, a new survey for nesting activity will be undertaken at the discretion of a QP.</li> <li>• If, at any time of year, an active tsiptspí7lhtn (bird nest) is discovered within or adjacent to construction activities that could pose a risk of disturbance or damage to that active nest, construction activities will stop and a QP will be consulted to determine and recommend a setback buffer. Woodfibre LNG will maintain a no-disturbance setback buffer for the duration that the nest is active. Woodfibre LNG will report the nest and setback in the Wildlife Observation and Incident Reporting Form (Appendix A). Flaring events will be scheduled outside of periods when migratory birds would be most at risk (e.g., during migration), to the extent feasible. Flaring scheduling will be refined prior to facility commissioning and operations. Refined flaring schedules for commissioning will be incorporated into the Construction WMMP prior to commissioning and submitted to BC EAO, ECCC, Sḵw'xwú7mesh Úxwumixw (Squamish Nation).</li> </ul>	M5.12-1 M5.17-2
Pileated woodpecker tsiptspí7lhtn (nests)	<ul style="list-style-type: none"> <li>• A survey for pileated woodpecker nest cavities was completed by a QP in July 2023; no nest cavities were found within the proposed clearing area.</li> <li>• If the nest of a pileated woodpecker is discovered, the nest will be checked by a QP to determine whether it is actively being used by a pileated woodpecker or another migratory bird. When the nest is inactive, and assuming the tree is scheduled to be cleared for construction, Woodfibre LNG will submit a notification to the Abandoned Nest Registry. The nest will not be disturbed, damaged, or destroyed for a period of at least 36 months after the nest is registered and on the provision that the nest remains inactive during that time. If Woodfibre cannot delay removal for a period of 36 months, Woodfibre LNG will consult with ECCC regarding options to remove or relocate the nest tree under a permit.</li> </ul>	Not applicable
Seḵw'eḵw'inexw tl'a shkwen (Marine birds)	<ul style="list-style-type: none"> <li>• Seḵw'eḵw'inexw tl'a shkwen (Marine bird) colonies have not been observed in or near the CPA but they occur within lower Howe Sound and the Salish Sea (WLNG, 2015; Stantec, 2023b). Prior to the start of construction, a QP will review data sources in Howe Sound to determine whether any marine bird colonies have been established since 2022 that could be affected by the Project. If a colony is identified and could be affected by construction activities, Woodfibre LNG will require its contractors of Project-related marine vessel traffic to maintain a setback of 300 m from that colony. Further, subject to safety concerns, if Project-related marine vessel traffic must pass with 1 km of a colony, contractors will be required to refrain from blowing horns or whistles and maintain a steady speed and constant engine noise while passing within 1 km (ECCC, 2018d). Vessel speed will be limited while traveling in the RAA.</li> <li>• Incidents involving seḵw'eḵw'inexw tl'a shkwen (marine bird) vessel strikes or strandings will be recorded on the Wildlife Observation and Incident Reporting Form (Appendix A) and maintained in a database; the species involved, location of bird, and weather conditions will be recorded.</li> </ul>	M5.17-3 M5.17-4 M5.17-5 M5.17-6

**Table 5: General Mitigation Measures for Sekw'ekw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
Sekw'ekw'inexw t'l'a shkwen (Marine birds) (cont'd.)	<ul style="list-style-type: none"> <li>• Construction pile driving activities will follow DFO's BMP for Pile Driving and Related Operations (BCMPDCA and DFO, 2003). These include maintaining equipment in good working order to reduce the risk of harmful leaks into the marine environment, storing fuel and petroleum products following safe operating procedures, and maintaining emergency spill equipment on site to enable swift response should a spill occur in the marine environment.</li> <li>• Woodfibre LNG will avoid pile driving and marine construction activities during periods with high abundance of sekw'ekw'inexw t'l'a shkwen (marine birds) (e.g., April), especially more sensitive species groups such as sea ducks, swans, loons, and grebes, within the CPA.</li> <li>• Woodfibre LNG will limit the duration of necessary activities, including both dismantling and construction of structures that must occur within the intertidal zone, to the extent possible to reduce disturbance of sekw'ekw'inexw t'l'a shkwen (marine birds) and sekw'ekw'inexw t'l'a shkwen (marine bird) habitat.</li> <li>• During inbound travel, Project vessels will be moving at a maximum speed of 8 to 10 knots at the south end of Passage Island (entrance to Átl'ka7tsem [Howe Sound] and the RAA) until they reach the immediate vicinity surrounding the Project area (LAA) where speeds will be reduced to 6 knots. To the extent practical, all other Project vessels will limit their speed to 8 to 10 knots while travelling within the RAA.</li> </ul>	M5.17-3 M5.17-4 M5.17-5 M5.17-6
Lams t'l'a kw'ekw'ikw'ehatl' (Barn swallow nests)	<ul style="list-style-type: none"> <li>• Kw'ekw'ikw'ehatl' (Barn swallow) has been observed nesting inside and on buildings planned for demolition (Figure 3). Under SARA, lams t'l'a kw'ekw'ikw'ehatl' (barn swallow nests) are considered a "residence" from May 1 or whenever birds are first seen building a nest, whichever is earlier, through August 31 or whenever a bird is last seen at a nest, whichever is later. Nests are considered residences regardless of whether they are occupied from May 1 to August 31 and therefore no lams t'l'a kw'ekw'ikw'ehatl' (barn swallow nests) will be removed from the CPA during this period without a permit. Additional mitigation is summarized below:                         <ul style="list-style-type: none"> <li>– A QP will determine appropriate setbacks around active lams t'l'a kw'ekw'ikw'ehatl' (barn swallow nests), and additional measures may be taken (e.g., avoidance of noise or human traffic near the nest area) at the direction of the QP to protect the nests from disturbance.</li> <li>– If vegetation management is required around artificial nest cups as part of habitat creation and enhancement for kw'ekw'ikw'ehatl' (barn swallow), it will be managed outside of the kw'ekw'ikw'ehatl' (barn swallow) nesting period, preferably within a few weeks before the swallows arrive for the season, to avoid disturbance to nesting birds.</li> <li>– Woodfibre LNG was issued SARA permit (SARA-PYR-2023-0739) to manage barn swallow nests during the residence period during demolition activities. Mitigation measures will align with the terms and conditions of the SARA permit.</li> </ul> </li> </ul>	M5.12-1 M5.12-4 M5.12-8 M5.14-2

**WOODFIBRE LNG PROJECT:  
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**Table 5: General Mitigation Measures for Seḵw'eḵw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
Shá7yu (Western screech-owl)	<ul style="list-style-type: none"> <li>Woodfibre LNG will retain suitable shá7yu (western screech-owl) nesting habitat in the CPA that does not conflict with development plans (Figure 3), where possible. This includes the mature forest in the riparian area on Mill Creek. A 200 m setback around suitable nest sites will be maintained, where possible as recommended by provincial guidelines (MOE, 2013a). Suitable nesting habitat will not be cleared unless approved by the Woodfibre LNG Environmental Representative.</li> <li>If tree clearing or construction activities that could directly or indirectly (i.e., within 300 m) affect suitable nesting habitat for shá7yu (western screech-owl) (Figure 3) is scheduled during the breeding season (March through August), a QP will undertake pre-construction surveys for shá7yu (western screech-owl) during the same season as the construction activities are set to occur, following provincial standards (RISC, 2006). Surveys will take place between March and the end of May when the probability of detecting nesting owls is highest (Cannings et al., 2020). Surveys will involve the use of call-playback, acoustic recorder units, and visual searches of potential nest sites within 300 m of the construction activities, where appropriate and as determined by the QP.</li> <li>If a shá7yu (western screech-owl) nest is detected, an additional 100 m 'quiet buffer will be implemented during the breeding season (MOE, 2013a). Setbacks will be demarcated with no-go fencing and signage to identify them in the field.</li> </ul>	M5.9-2 M5.11-2 M5.12-2 M5.12-3
Piyís (Marbled murrelet)	<ul style="list-style-type: none"> <li>The Contractor will retain suitable piyís (marbled murrelet) nesting habitat in the CPA that does not conflict with development plans (Figure 3), where possible. No suitable nesting habitat is identified with the proposed clearing areas.</li> <li>Woodfibre LNG will maintain a no-disturbance buffer of 100-m of provincially-mapped suitable habitat (MWLRS 2023b) during the piyís (marbled murrelet) nesting period (late April to early September).</li> <li>Woodfibre LNG will limit noise (e.g., no blasting) within 1 km of provincially-mapped suitable habitat (MWLRS 2023b) during the piyís (marbled murrelet) nesting period (late April to early September).</li> </ul>	M5.9-2 M5.11-2 M5.14-2 M5.17-8
Nsexá7xem (Band-tailed pigeon)	<ul style="list-style-type: none"> <li>Prior to ground or surface disturbance in areas with potential to provide a mineral source for nsexá7xem (band-tailed pigeons) (i.e., marine beaches, water springs, gravel roads), a QP with experience in nsexá7xem (band-tailed pigeon) habitats will undertake a field survey to assess the site for use by nsexá7xem (band-tailed pigeon). The QP will also review Wildlife Observation and Incident Reporting Forms for detections of nsexá7xem (band-tailed pigeon).</li> <li>If mineral sites are determined to be present following the field survey or during construction, Woodfibre LNG will report the site to ECCC and will establish appropriate setbacks. Consideration for habitat loss mitigation measures is provided in Section 5.4.</li> </ul>	M5.14-2

**Table 5: General Mitigation Measures for Seḵw'eḵw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
Sp'áḵw'us (Bald eagle)	<ul style="list-style-type: none"> <li>• A known sp'áḵw'us (bald eagle) nest is southwest of the CPA, on the north side of Woodfibre Creek (Figure 3). The proposed clearing area and some supporting infrastructure overlaps with the 100 m year-round setback and 100 m 'quiet zone' (Figure 3). Woodfibre LNG will maintain, where possible, the 100 m 'quiet zone' during the breeding season (January 5 through August 31) (MOE, 2013b) or when the nest is active.</li> <li>• If clearing or construction activities are required within 100 m of a sp'áḵw'us (bald eagle) nest or within 200 m of the nest when it is active, Woodfibre LNG will consult with a QP to determine appropriate mitigation measures.</li> <li>• Project timing of construction, including clearing, site prep/blasting, and construction of project infrastructure within 200 m of a nest, will avoid the sp'áḵw'us (bald eagle) breeding season (see Table 6), to the extent practical.</li> <li>• If vegetation clearing or other construction activities are required within 200 m of a nest during the breeding season, Woodfibre LNG will implement the following mitigation measures:             <ul style="list-style-type: none"> <li>– Woodfibre LNG will consult a QP to determine appropriate measures to avoid disturbance to the eagles. This may include inexwantas (monitoring) of nesting activity—the QP will develop a inexwantas (monitoring) form and protocol for the EM to follow.</li> <li>– The EM will monitor (through a remote camera<sup>13</sup> or in-person with binoculars at a distance) the eagle nest and behaviour of the eagles during construction activities to assess level of stress or changes to bird behaviour (e.g., reduced food deliveries, increase time off nest, reduced time incubating or brooding). The EM will determine if Project activities need to be temporarily paused or modified to reduce disturbance to the nesting eagles.</li> <li>– If birds are showing signs of reduced nesting behaviour (off nest) during cold, windy, and/or wet (rain, snow) conditions, Project activities will be paused until weather conditions improve. Woodfibre LNG will consult a QP to determine appropriate temperature and weather conditions for Project activities to continue.</li> <li>– If blasting is scheduled to occur during the breeding season, the QP will review the blasting mitigation measures above and work with the Contractor to determine and implement additional mitigation measures and inexwantas (monitoring), as required.</li> </ul> </li> </ul>	M5.12-3 M.5.12-6

<sup>13</sup> Camera installation at the eagle nest would require adherence to the timing restrictions and other guidelines outlined in the Raptor Webcam Guidelines (MOE, 2010)

**Table 5: General Mitigation Measures for Seḵw'eḵw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
<b>Sḵáp'ḵap'tsaylh (Bats) and other Mammals</b>		
Tree clearing	<ul style="list-style-type: none"> <li>• The Contractor will avoid clearing potential bat roost habitat features (which includes those identified during seḵw'eḵw'inexw (wildlife) surveys shown on Figure 4) during the skap'kap'tsaylh (bat) maternity season when females and pups may be present (May 16 to August 31). If clearing in bat roost habitat is required during the maternity season, the following additional mitigation will be used:                             <ul style="list-style-type: none"> <li>– If the Contractor determines that tree clearing must occur during the maternity season (i.e., between May 16 to August 31), large live, dead, or dying trees with hollows and cavities (trees with decay class 2 or greater; see Figure 4 for potential sites) will be visually inspected for skap'kap'tsaylh (bat) use (e.g., bat droppings) by a QP experienced with skap'kap'tsaylh (bats), prior to tree removal (MOE, 2016). If the QP considers appropriate, acoustic surveys will also be undertaken to determine use.</li> </ul> </li> <li>• The QP will establish a suitable buffer in consultation with relevant government authorities, (depending on the location and number of suspected bats present) around an identified maternity site, and the tree will not be removed until after the maternity season ends, or bat use is no longer observed, whichever is later.</li> </ul>	M5.13-1
Mammal dens	<ul style="list-style-type: none"> <li>• Infrastructure and stationary equipment may provide denning areas for some mammals. Prior to removal of long-stationary equipment or infrastructure (e.g., holding tanks, disposal bins), the EM will inspect around and underneath the structure to check for signs of denning or burrowing animals that may be disturbed.</li> </ul>	M5.12-1
<b>Amphibians and Reptiles</b>		
Mortality risk	<ul style="list-style-type: none"> <li>• Woodfibre LNG is applying for a permit under the <i>Wildlife Act</i> to undertake incidental salvages prior to and during construction if reptiles or amphibians are at risk of entering the worksite during construction.</li> <li>• Seḵw'eḵw'inexw (wildlife) exclusion fencing will be installed at strategic locations in areas of potential concern to deter reptiles and amphibians from entering the worksite.</li> <li>• Prior to construction in an area of potential concern, a QP will visually inspect the worksite and surrounding vegetation and ground for reptiles and amphibians; if animals are detected, salvages will be undertaken in accordance with the <i>Wildlife Act</i> permit conditions.</li> </ul>	M5.12-1
Mortality risk	<ul style="list-style-type: none"> <li>• Woodfibre LNG's Erosion Prevention and Sediment Control Plan (see CEMP) describes the applicable permits, best management practices, and mitigation measures that will be used to avoid or reduce adverse effects on water quality that could affect amphibian mortality.</li> <li>• Woodfibre LNG will develop and implement a water quality inewxantas (monitoring) program for Mill Creek and Woodfibre Creek that will include sample sites, frequency of sampling, and parameters to be monitored.</li> </ul>	M5.8-1 M5.8-5 M5.14-1 M5.14-4 M5.15-2

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**Table 5: General Mitigation Measures for Seḵw'eḵw'inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
		FDS 4.3
Mortality risk (cont'd.)	<ul style="list-style-type: none"> <li>• Woodfibre LNG will develop a Water Management Plan for Mill Creek, which will afford protection of sts'úḵwi7 (fish) and fish habitat by prescribing the minimum instream flow releases. Although the focus of this plan is sts'úḵwi7 (fish) and fish habitat, this plan will also benefit amphibian and amphibian habitat.</li> <li>• Woodfibre LNG will develop an Environmental Protection Plan specific to works required in and around Mill Creek prior to the initiation of these works.</li> <li>• Prior to commencing instream work on Mill or Woodfibre creeks (e.g., installation of water intake structures), a QP experienced with amphibians will assess instream habitat to determine if an amphibian salvage and relocation program is required.</li> <li>• Prior to vegetation clearing within 30 m of Mill Creek or Woodfibre Creek, a QP experienced with amphibians will undertake a salvage to relocate amphibian species, if observed. Methods for detecting coastal tailed frog will follow RISC protocols (RISC, 2000). If amphibian salvage is required, a QP will undertake the salvages using methods consistent with provincial best practices (e.g., FLNRO, 2016). Terrestrial amphibian salvages will target rainy nights, if feasible, for effective capture and safe handling of amphibians.</li> <li>• When clearing vegetation adjacent to watercourses, and where safe to do so, Woodfibre LNG will avoid falling trees into the watercourse.</li> <li>• If clearing or instream works are planned for winter, salvage and relocation of coastal tailed frog will occur during non-winter conditions (i.e., water temperature above 5°C and snow-free conditions).</li> <li>• The EM will be responsible for inewxwantas (monitoring) areas of standing water for pond-dwelling amphibians that may be disturbed by construction.</li> <li>• Exclusion fencing will be installed in strategic locations to divert amphibians and snakes away from the worksite and roads.</li> <li>• During the amphibian active period (March to October; see Table 6), signage will be installed and maintained at strategic locations and workers reminded, at daily toolbox meetings, to maintain awareness of amphibians on roads, especially on rainy nights, and on site and allow amphibians the right of way.</li> <li>• During the reptile active period (April to October; see Table 6), signage will be installed and maintained at strategic locations and workers reminded, at daily toolbox meetings, to maintain awareness of snakes on roads and allow snakes the right of way.</li> </ul>	<p>M5.8-1 M5.8-5 M5.14-1 M5.14-4 M5.15-2 FDS 4.3</p>

**Table 5: General Mitigation Measures for Seḵw’eḵw’inexw (Wildlife) During Construction**

Category	Mitigations	Application Mitigation Number
Mortality risk (cont'd.)	<ul style="list-style-type: none"> <li>If salvage and relocation is needed, a QP will prepare a provincial permit application and salvage plan consistent with provincial guidelines (i.e., FLNRO, 2016). The permit application and salvage plan will be submitted to the Province (through FrontCounter BC). Captured amphibians, including adults, tadpoles, neonates, larvae, or eggs, will be relocated to areas of suitable habitat in accordance with a seḵw’eḵw’inexw (wildlife) salvage permit, at the direction of a QP experienced with amphibians (FLNRO, 2016). The location(s) of suitable habitat for relocation will be identified by the QP in the seḵw’eḵw’inexw (wildlife) salvage permit application.</li> <li>The EM will be responsible for documenting amphibian activity on site (e.g., aggregation, migration, or dispersal to a noticeable degree). If amphibians are expected and may be disturbed by construction (as determined by a QP experienced with amphibians), work in the immediate vicinity will be halted until mitigation measures are implemented. Mitigation structures for amphibians may include drift fences (to direct amphibians away from construction activities and towards safe habitat during migration or dispersal movements), exclusion fences (to prevent amphibians from entering a workspace), and culverts. Signage (e.g., stakes, flagging, or signs) will be used to identify locations where amphibians are present, at the discretion of the QP. These measures will be monitored for their effectiveness at avoiding amphibian mortality. Fencing will be removed after construction activities that could cause amphibian injury or mortality is complete.</li> </ul>	M5.8-1 M5.8-5 M5.14-1 M5.14-4 M5.15-2 FDS 4.3

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**Table 6: Sensitive Periods for Seḵw'eḵw'inexw (Wildlife)**

Species or Species Group	Sensitive Period <sup>a</sup>	Dates	Reference
Migratory birds	Primary Nesting Period, zone A1	March 26 to August 16	ECCC, 2018a
	Nesting – wetland	March 26 to August 8	
	Nesting – open	March 30 to August 16	
	Nesting – forest	March 26 to August 9	
Kw'eḵw'íḵw'ehatl' (Barn swallow)	Nesting (residence period)	May 1 or the date when adults are first seen building a nest, whichever is earlier to August 31 or the date when a bird is last seen at a nest, whichever is later	ECCC, 2019b
Seabird and water bird colonies	Breeding	March 17 to August 17	ECCC, 2018d
Piyís (Marbled murrelet)	Nesting (residence period)	Late April to early September	MWLRS, 2023a
Smeḵw'á7 (Great blue heron)	Breeding	February 15 to August 31	MWLAP, 2004
	Colonies	November 1 to March 31	
Sp'áḵw'us (Bald eagle)	Courtship	January 5 to February 5	MOE, 2013a
	Eggs	February 5 to June 25	
	Young	April 1 to August 31	
Osprey	Courtship	March 21 to April 21	
	Eggs	April 21 to July 5	
	Young	May 25 to September 5	
Shá7yu (Western screech-owl)	Courtship	February 17 to March 17	
	Eggs	March 17 to June 1	
	Young	April 20 to August 25	
Nsḵípim (Northern goshawk)	Courtship	March 7 to April 7	
	Eggs	April 7 to June 10	
	Young	May 20 to August 21	
Skáp'kap'tsaylh (Bats)	Maternity season when females and pups may be present	May 16 to August 31	MOE, 2016

**Table 6: Sensitive Periods for Seḵw'eḵw'inexw (Wildlife)**

Species or Species Group	Sensitive Period <sup>a</sup>	Dates	Reference
Pond-dwelling amphibians	Breeding and movement periods	Active period: March to October	FLNRO, 2016 MECCS, 2020
Stream-dwelling amphibians (coastal tailed frog)	Year-round	Year-round	ECCC, 2018c
Elhḵay' (Snakes) and lizards	Active period: spring emergence, breeding, returning to hibernacula Inactive period: hibernation	April to October (active period) October to March (hibernation period)	FLNRO, 2014 MECCS, 2020

Notes:

<sup>a</sup> Sensitive period for young birds includes nestling (i.e., in nest) and fledgling (i.e., young out of, but near, nest and not yet able to fly well) stages

## 5.4 HABITAT LOSS MITIGATION MEASURES

Habitat loss mitigation measures are used to compensate for the potential loss of certain wildlife habitat features during construction. Habitat loss mitigation measures will be implemented if Project construction requires the removal of a skap'kap'tsaylh (bat) roost, a shá7yu (western screech-owl) nest site, a kw'eḱw'íḱw'ehatl' (barn swallow) nest, or a nseḱá7ḱem (band-tailed pigeon) mineral source site. Habitat loss mitigation measures include provision of skap'kap'tsaylh (bat) roosting structures, kw'áxwa7s tl'a shá7yu (western screech-owl nest boxes), lams tl'a kw'eḱw'íḱw'ehatl' (barn swallow nest cups), and, if needed, nseḱá7ḱem (band-tailed pigeon) mineral sites.

Woodfibre LNG began to implement habitat loss mitigation measures pre-emptively by installing and skap'kap'tsaylh (bat) roosting structures within the CPA in 2022.

Table 7 summarizes wildlife habitat loss mitigation measures for the Project during the construction phase.

**Table 7: Habitat Loss Mitigation Measures for Səkw'əkw'inexw (Wildlife) During Construction**

Category	Habitat Loss Mitigation	Mitigation / Permit Number
Bats – artificial roosting structures (bat boxes)	<ul style="list-style-type: none"> <li>• Artificial roosting structures will be installed to mitigate for loss of suitable roosting sites for s̓k̓ap'k̓ap'tsaylh (bats). A QP experienced with s̓k̓ap'k̓ap'tsaylh (bats) will determine the number, placement, and type of roosting structures following Best Management Practices for Bat Boxes in British Columbia (BC Community Bat Program, 2019). The number of structures to be installed will depend on the outcome of the bat surveys and site assessment to be completed prior to clearing and demolition of buildings.</li> <li>• Artificial roosts will be installed prior to habitat removal and located within suitable habitat selected by the QP. Results of the bat surveys and site assessment will inform the locations of artificial roosts. The QP will also review Wildlife Observation Forms for detections of s̓k̓ap'k̓ap'tsaylh (bats).</li> <li>• Maintenance and inɛxwantas (monitoring) of artificial roosts will be completed annually by inspections during construction by a QP experienced with bats. The QP will determine occupancy and confirm the artificial roosts are still functional and capable of supporting bats. If bat guano is present, the QP will collect samples per collection methods described in the BC Community Bat Project DNA Sampling Protocol (BC Community Bat Program, 2022) for analysis to determine species. If an artificial roost is deemed to be no longer functional it will be repaired or replaced prior to the onset of the next roosting season.</li> </ul> <p>Artificial roosting structures have been installed as described here:</p> <ul style="list-style-type: none"> <li>• Two bat boxes were installed on the external wall of the warehouse in 2020 to introduce bats in the area to artificial structures; the boxes were inspected in October 2020 for signs of bat use and bat sign was not observed at that time (Keystone, 2021). The boxes were removed in early 2021.</li> <li>• Woodfibre LNG purchased four 4-chamber nursery bat boxes and one 2-chamber rocket box following Best Management Practices for Bat Boxes in British Columbia (BC Community Bat Program, 2019) and A Guide for Bat Houses in British Columbia (BC Community Bat Program, 2018; Stantec, 2021). Under the supervision of a QP, Woodfibre LNG installed two nursery bat boxes back-to-back, and one rocket box, on the west side of the landfill (Figure 4), and the other two nursery bat boxes behind the warehouse (Figure 4) in March 2022. The bat boxes near the landfill were installed on wooden posts bolted to the cement block wall along the access road. The boxes behind the warehouse were installed on the existing, but disused, lamp post. Woodfibre LNG brushed and cleared a few shrubs and cedar saplings around the lamp post to limit opportunities for bird and mammal predators to perch or hunt near the bat boxes. Predator guards were installed on the posts to deter animals from climbing up.</li> </ul>	M5.13-3 FDS 9.2 FDS 9.3

**Table 7: Habitat Loss Mitigation Measures for Sekw'ekw'inexw (Wildlife) During Construction**

Category	Habitat Loss Mitigation	Mitigation / Permit Number
Birds – ww'áxwa7s tl'a shá7yu (western screech-owl nest boxes)	<ul style="list-style-type: none"> <li>If suitable nesting sites will be removed, kw'áxwa7s tl'a shá7yu (western screech-owl nest boxes) will be installed as a mitigation measure following guidance from the <i>Owl Monitoring Group – Nest Box Protocol for the Coastal Western Screech-Owl (Megascops kennicottii kennicottii)</i> (Tripp and Welstead, 2019).</li> <li>The number of nest boxes will be based on the quantity of suitable nesting cavities removed (those observed during the pre-clearing assessment enumerating cavity/sekw'ekw'inexw [wildlife] trees).</li> <li>A QP experienced with shá7yu (western screech-owl) will identify suitable habitat(s) for nest box placement. The QP will also review Wildlife Observation Forms quarterly for detections of shá7yu (western screech-owl).</li> <li>Kw'áxwa7s tl'a shá7yu (western screech-owl nest boxes) will be installed prior to the onset of the next breeding season (February), following clearing.</li> <li>Unless determined otherwise by the QP, kw'áxwa7s tl'a shá7yu (western screech-owl nest boxes) will be placed from 3 m to 9 m above ground (NestWatch, 2019).</li> <li>The nest boxes will be checked at the onset of each breeding season during each year of construction to confirm they are still functional (i.e., attached to the tree). A nest box that is deemed to no longer be functional will be repaired or replaced within 30 days of the initial inspection.</li> </ul>	M5.12-8
Birds – lams tl'a kw'ekw'íkw'ehatl' (barn swallow nest cups)	<ul style="list-style-type: none"> <li>Mitigation measures and monitoring will align with the terms and conditions of SARA Permit SARA-PYR-2023-0739.</li> <li>Lams tl'a kw'ekw'íkw'ehatl' (barn swallow nest cups) were installed on a compensation structure to mitigate the removal of nest locations associated with the demolition of old buildings. The number of nest cups installed was equivalent to the number of nests identified during a pre-demolition nest survey and in consideration of occupancy rates of artificial nest cups by swallows, such that the number of nest locations present before demolition is the same or higher after demolition. The QP will also review Wildlife Observation Forms quarterly for detections of kw'ekw'íkw'ehatl' (barn swallow). The nest cup design was similar to those used successfully in other locations, following specifications developed in BC (e.g., TBCSCP, 2014b, 2015) and Ontario (OMNRF, 2016).</li> <li>Woodfibre LNG constructed a nesting structure and installed nest cups on the structure near the existing landfill, which is within 1 km of where lams tl'a kw'ekw'íkw'ehatl' (barn swallow nests) were located in the pre-demolition nest survey and within 300 m of foraging habitat. Nest cup and nesting structure design, planning, and implementation was determined by a QP experienced with kw'ekw'íkw'ehatl' (barn swallow) in review of best practices (e.g., OMNRF, 2016) and in consultation with the Contractor and ECCC. This compensation forms part of the SARA Permit terms and conditions: SARA-PYR-2023-0739.</li> </ul>	M5.12-8

**Table 7: Habitat Loss Mitigation Measures for Sekw’ekw’inexw (Wildlife) During Construction**

Category	Habitat Loss Mitigation	Mitigation / Permit Number
	<ul style="list-style-type: none"> <li>Nest cups were installed prior to May following the loss of nest sites.</li> </ul>	
Birds - nsexá7xem (band-tailed pigeon) mineral site	<ul style="list-style-type: none"> <li>If disturbance to a mineral source for nsexá7xem (band-tailed pigeon) cannot be avoided, then mitigation measures for the potential loss of nsexá7xem (band-tailed pigeon) mineral sites will be implemented by creating an artificial mineral site (e.g., livestock salt block) in a location determined to be suitable by a QP experienced with nsexá7xem (band-tailed pigeons). The artificial mineral site will be monitored annually during construction by the QP to determine if the habitat loss mitigation is being used. The QP will also review Wildlife Observation Forms quarterly for detections of nsexá7xem (band-tailed pigeon).</li> </ul>	M5.14-2

## 5.5 ENVIRONMENTAL TRAINING AND ORIENTATION

Seḵw'eḵw'inexw (wildlife) mitigation and management training will be included in the environmental orientation program that will be developed and implemented by the Contractor. The program will be reviewed and approved by Sḵwxwú7mesh Úxwumixw (Squamish Nation) and the Woodfibre LNG Environmental Representative.

All workers (i.e., contractors, staff, and employees) will be informed of seḵw'eḵw'inexw (wildlife) concerns at the site and trained on how to record and report seḵw'eḵw'inexw (wildlife) conflicts/concerns (e.g., vehicle-seḵw'eḵw'inexw [wildlife] collisions, nuisance animals, seḵw'eḵw'inexw [wildlife]-human interactions). Information such as species involved, time and location of incident, and a description of what was observed will be documented. Conflicts will be reported based on the form in Appendix A. Workers will be informed of the need to be vigilant and obey appropriate signage (e.g., speed limits) and proper use of bear-proof waste disposal/storage procedures specified in the Waste Management Plan (see CEMP).

## 5.6 COORDINATION AND INFORMATION SHARING

The Woodfibre LNG Environmental Representative will contact FortisBC prior to construction of the Eagle Mountain—Woodfibre Gas Pipeline Project commencing between the Sḵwxwú7mesh stáḵw (Squamish River) estuary and the CPA (mitigation M5.12-10). The parties will discuss opportunities to reduce potential adverse effects on seḵw'eḵw'inexw (wildlife) through infrastructure sharing (e.g., laydown areas).

The Woodfibre LNG Environmental Representative will meet with BC Hydro regarding the Woodfibre Substation Project to identify measures to reduce potential adverse effects on seḵw'eḵw'inexw (wildlife) (mitigation M5.12-10).

If the BURNCO Aggregate Project begins mining operations, the Woodfibre LNG Environmental Representative will contact BURNCO to discuss sharing results of the seḵw'eḵw'inexw (wildlife) inexwantas (monitoring) programs where it is determined that these results could enhance the other project's inexwantas (monitoring) programs (mitigation M5.17-9). This information sharing will include the results of seḵw'eḵw'inexw t'l'a shkwen (marine bird) inexwantas (monitoring) studies to increase the knowledge base for seḵw'eḵw'inexw t'l'a shkwen (marine bird) interactions.

Per mitigation measure M5.12-1 and Sections 13.2.2.17 and 13.3.5 of the Application, observations of provincially Red- or Blue-listed seḵw'eḵw'inexw (wildlife) species and seḵw'eḵw'inexw (wildlife) species listed in Schedule 1 of SARA that have not previously been documented within the CPA will be reported to the BC CDC by Woodfibre LNG.

In accordance with FDS Condition 13, records will be maintained of information relating to the implementation of conditions set out in the FDS and the results of associated inexwantas (monitoring). This includes dates, locations, and times of inexwantas (monitoring); the techniques, methods, or procedures used; and the names of the persons involved and documentation of their professional certifications. This information will be provided to the EM to prevent information loss.

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Per mitigation measure M5.12-1, a database of sekw'ekw'inexw (wildlife) conflicts and mortality will be maintained throughout the construction phase. The sekw'ekw'inexw (wildlife) reporting process for all Project workers will be included in the Project's environmental training and orientation.

Environmental inxwantas (monitoring) summary reports will be provided by the EM to the Woodfibre LNG Environmental Representative. Reporting frequency for environmental inxwantas (monitoring) reports is outlined in the CEMP. These reports will include the results of the pre-construction sekw'ekw'inexw (wildlife) surveys and other mitigation measures and inxwantas (monitoring), as well as incidental sekw'ekw'inexw (wildlife) observations from within the CPA.

Woodfibre LNG will provide marbled murrelet survey data to the Ministry of Water, Land and Resource Stewardship.

## 6.0 SEKW'EKW'INEXW (WILDLIFE) INEXWANTAS (MONITORING) AND ADAPTIVE MANAGEMENT

Environmental ínexwantas (monitoring) is required to verify compliance with this Construction WMMP and applicable regulations and conditions and to document the effectiveness of implemented mitigation measures, document incidents and mortalities, and determine if adaptive management is required.

### 6.1 ÍNEXWANTAS (MONITORING)

Per EAC Condition 11, Woodfibre LNG has designed a ínexwantas (monitoring) and follow-up program with respect to impacts to sekw'ekw'inexw (wildlife) within the terrestrial portions of the CPA during construction. The following sections describe Woodfibre LNG's compliance and ínexwantas (monitoring) and follow-up programs for sekw'ekw'inexw (wildlife).

#### 6.1.1 Compliance

To meet EAC Condition 1, Woodfibre LNG will retain the services of a QP as an EM to verify compliance with the Certificate, including the requirements of Section 13.3.5 of the Application for an EAC and this Construction WMMP. The EM will complete routine ínexwantas (monitoring) during construction to verify whether the mitigation measures outlined in this Construction WMMP are being implemented effectively or if adaptive management is required.

#### 6.1.2 Ínexwantas (Monitoring) and Follow-up Programs

Woodfibre LNG has developed, in consultation with a QP, ínexwantas (monitoring) and follow-up programs, with defined performance measures such as targets, thresholds, and objectives. Ínexwantas (Monitoring) programs have specific objectives (e.g., ínexwantas [monitoring] lams tl'a kw'ekw'íkw'ehat' [barn swallow nest cups] to determine occupancy), while follow-up programs are used to understand how new or unproven mitigation measures are functioning and to verify the accuracy of predicted potential effects, as stated in the Application. An outcome of ínexwantas (monitoring) and follow-up is to determine whether additional mitigations are required, which will be addressed through the application of adaptive management. A framework of sekw'ekw'inexw (wildlife) ínexwantas (monitoring) and follow-up programs is provided in the following sections.

##### 6.1.2.1 Skáp'kap'tsaylh (Bat) Roosting Sites

Woodfibre LNG has developed a follow-up program to monitor little brown myotis usage of artificial roosting structures and of buffer zones to satisfy FDS Condition 9.3. The objective of ínexwantas (monitoring) is to determine the effectiveness of mitigation measures throughout all phases of the Project. The artificial roosting structures will be monitored and maintained on an annual basis by a QP experienced with skáp'kap'tsaylh (bats). The QP will determine occupancy and confirm if the artificial

roosts are functional and capable of supporting skáp'káp'tsaylh (bats); the target is that artificial roosts are occupied and functioning as intended. Artificial roosting structures will be inspected by a QP once per year prior to skáp'káp'tsaylh (bats) potentially occupying them and at least once per year when bats would be expected to be present. When skáp'káp'tsaylh (bats) are expected to be absent (November to March), the EM will check the roosting structures for wasp nests and remove them if they are present. During the maternity season, a QP will visually inspect the roosting structures from the ground for evidence of guano and urine to avoid disturbing skáp'káp'tsaylh (bats). If guano is present, the QP will collect samples per collection methods described in the BC Community Bat Project DNA Sampling Protocol (BC Community Bat Program, 2018) for analysis to determine species. If determined necessary by a QP, Woodfibre LNG may monitor the artificial roosting structures passively using uARUs and/or actively using roost emergence counts at dusk. If after two years the artificial roosts are not used (i.e., the threshold), ínexwantas (monitoring) will continue and an evaluation of potential limiting factors will be undertaken by the QP. Woodfibre LNG recognizes that it may take several years for bats to use or occupy artificial roosts. If corrective measures are necessary to improve the likelihood of occupancy, these will be implemented if they are reasonable and feasible.

If an active maternity roost site is detected (e.g., during pre-clearing survey prior to construction) and requires a non-disturbance buffer during operation, a QP will monitor the effectiveness of buffer zones. Ínexwantas (monitoring) methods will include visual inspections of the roost sites and, if considered necessary, passive and/or active acoustic surveys to determine usage. Surveys will be undertaken during the skáp'káp'tsaylh (bat) active season. If the QP determines that a passive acoustic survey is necessary, uARUs will be deployed in May through October when roost sites are expected to be occupied. If a suspected hibernaculum is identified it will be monitored with an uARU from early March to early November to cover the fall swarming period, per provincial inventory methods for bats (RISC, 2022). Additionally, the QP will consult with the appropriate regulatory authorities in the event an active roost is identified. Data from the uARUs will be analyzed using Kaleidoscope or a similar acoustic data analysis program and summarized in the annual report (see Section 7.0).

As part of compliance ínexwantas (monitoring), the EM will inspect buffer zones to confirm they have been implemented and maintained during construction, as appropriate and specified by the QP. As part of compliance ínexwantas (monitoring), the EM will inspect setbacks to confirm they have been implemented and maintained during tree clearing (i.e., the target), as appropriate and specified by the QP.

### 6.1.2.2 Migratory Birds

The focus of the follow-up program for migratory birds is on the effectiveness of mitigation measures used to protect migratory birds per FDS conditions 4.1 and 4.3.

Predictions made in the Application for an EAC for migratory birds state that Project-related effects can be reduced to an acceptable level during activities that may harm, kill, or disturb migratory birds. Woodfibre LNG recognizes that under the *Migratory Birds Convention Act*, there is no acceptable level of harm for migratory birds. Mitigation measures for migratory birds are described above and are focused on the use of nest surveys and the implementation of appropriate setbacks and buffers for a period until an active nest is no longer active (i.e., young have successfully fledged or left the nest area). The measure of effectiveness of the mitigation will be that the appropriate setback is maintained for the duration the

nest is active. Woodfibre LNG will implement the following follow-up program during construction to determine the effectiveness of mitigation measures used to protect migratory birds:

- If a tsíptspí7lhtn (bird nest) survey is deemed necessary (per mitigation measures described in the section above), Woodfibre LNG will confirm, through documentation, that each of ECCC's criteria for a nest survey are satisfied.
- If an active tsíptspí7lhtn (bird nest) is identified, an appropriate setback will be prescribed and established for the duration that the nest is active. Woodfibre LNG will confirm that the setback is maintained until the nest is complete.
- Woodfibre LNG will not undertake nest ínexwantas (monitoring) unless this can be done at a safe distance that does not cause the bird to change its nesting behaviour, cause pre-mature fledging, or draw the attention of predators to the nest.
- If a migratory bird, or its nest or egg, is accidentally disturbed, harmed, or destroyed, Woodfibre LNG will promptly report the incident to ECCC. Incident reporting will include the species, nest stage (e.g., nest-building, egg-laying, incubation, nestlings), location, setting and context, and Project activity that led to the incident. Woodfibre LNG will review the details of the incident and risk of recurrence with a QP and make necessary changes to project activities to reduce the future likelihood of a similar incident.
- Nest surveys completed, and mitigations implemented and their effectiveness, will be reported on per FDS Condition 2.6. If additional mitigations are determined to be required, these will be implemented and reported on per FDS Condition 2.4

#### 6.1.2.3 Lams tl'a kw'ekw'íkw'ehatl' (Barn Swallow Nest Cups)

Woodfibre LNG is committed to ínexwantas (monitoring) the use and function of kw'ekw'íkw'ehatl' (barn swallow) compensation to determine if the compensation is functioning as intended and if adaptive management is required. Monitoring will align with the terms and conditions of SARA Permit SARA-PYR-2023-0739. A QP experienced with kw'ekw'íkw'ehatl' (barn swallows) will monitor kw'ekw'íkw'ehatl' (barn swallow) use and nesting activities on the compensation nesting structure in each breeding season for at least two years following installation of the compensation structures to determine nest occupancy. The measure of effectiveness of the mitigation will be the number of active barn swallow nests within a nesting season within the CPA. The target is the same number of barn swallow pairs nesting within the CPA following construction as the number of pairs that nested prior to construction.

The QP will undertake a survey in May (onset of nesting) and July (chick-rearing and potential second nesting attempts) of each year to count the number of pairs on site, number of nests, and to inspect the nesting structures and artificial nest cups to determine occupancy. The survey in May will determine kw'ekw'íkw'ehatl' (barn swallow) prospecting and nest building activities, including where the swallows go to find nest materials and number of pairs visiting the structures. The survey in July will determine nest cup occupancy and potential second or third nesting attempts. Nest cup occupancy will be considered affirmative if an adult kw'ekw'íkw'ehatl' (barn swallow) or its eggs or young is detected in an artificial or natural nest cup in the interior or exterior of the nesting structures. An end-of-season survey will be completed in late August or early September, no later than September 15, to determine the final nest count. If after two years the structures are not used (i.e., the threshold), ínexwantas (monitoring) will

continue and an evaluation of potential limiting factors will be undertaken by the QP. If corrective measures are necessary to improve the likelihood of nesting, these will be implemented if they are reasonable and feasible.

In addition, a wildlife camera will be installed in May at each nesting structure to monitor effectiveness of predator guards and other measures installed to deter predators. Data from the cameras will be reviewed monthly throughout the kw'ekw'íkw'ehatl' (barn swallow) nesting season to determine potential predation events and if adaptive management is required.

#### 6.1.2.4 Nseǰá7ǰem (Band-tailed Pigeon) Mineral Sites

If Woodfibre LNG creates an artificial mineral site (e.g., provision of a livestock salt block) for nseǰá7ǰem (band-tailed pigeon) as determined by a QP, the EM will monitor the site annually during construction to determine if it is being used. A survey will be completed annually when nseǰá7ǰem (band-tailed pigeons) typically congregate at mineral source sites (i.e., late summer). If necessary, as determined by a QP, Woodfibre LNG may install a wildlife camera to monitor the use of the artificial mineral site. The measure of effectiveness of the mitigation will be use of the artificial mineral site by nseǰá7ǰem (band-tailed pigeons).

#### 6.1.2.5 Sp'áǰw'us (Bald Eagle) Nest

During construction activities in the vicinity (i.e., 200 m) of a sp'áǰw'us (bald eagle) nest during the nesting period, the EM will monitor daily, either with a remote camera or in-person with binoculars, the nest to watch for changes in behaviour. If needed, adaptive management measures (e.g., temporary stop work), will be implemented to manage disturbance to the nest. If blasting is scheduled to occur during the breeding season, additional ínexwantas (monitoring) may be required. The measure of effectiveness of the mitigation will be use of the nest site by bald eagles for nesting and raising young to fledging; the target is no changes in use of the nest site by bald eagles during construction activities.

#### 6.1.2.6 Amphibian and Reptile Exclusion Measures

The EM will document amphibian and reptile activity on site (e.g., aggregation, migration, or dispersal to a noticeable degree). If amphibians or reptiles are expected and may be disturbed by construction activities (as determined by a QP experienced with amphibians and reptiles), work in the immediate vicinity will be halted until mitigation measures (e.g., exclusion, salvage, and relocation) are implemented. Exclusion measures could include drift fencing to direct amphibians and reptiles away from construction or continuous fencing around a site (e.g., waterbody) to exclude amphibians from the site. Where exclusion measures are implemented, the EM will monitor amphibian and reptile movements during construction activities for the duration the exclusion measures are installed. Ínexwantas (Monitoring) will determine the effectiveness of exclusion measures at avoiding amphibian and reptile mortalities during construction. The measure of effectiveness of the mitigation will be amphibian and reptile presence within the active construction site and Project-related mortalities. The target is no amphibians or reptiles are harmed during construction activities.

### 6.1.2.7 Seḵw'eḵw'inexw tl'a shkwen (Marine Birds)

Woodfibre LNG completed pre-construction surveys in 2022 as part of the MBMP; methods are described in Stantec (2023b). The objective of pre-construction seḵw'eḵw'inexw tl'a shkwen (marine bird) inxwantas (monitoring) is to better understand seasonal presence of seḵw'eḵw'inexw tl'a shkwen (marine birds) within the CPA marine environment and to determine if new or revised mitigation measures are needed to manage collision risk potential. Post-construction inxwantas (monitoring) will be completed during the operation phase and therefore, is described as part of the Operation WMMP.

Woodfibre LNG will also provide information and training to workers (contractors, staff, and employees) on how to report and record seḵw'eḵw'inexw tl'a shkwen (marine bird) conflicts during construction (see Section 5.5) (per mitigation M5.17-8). Reporting will be reviewed regularly (e.g., monthly) to identify areas of conflict or mortality of seḵw'eḵw'inexw tl'a shkwen (marine birds). Where conflict is identified and in the event of a seḵw'eḵw'inexw tl'a shkwen (marine bird) collision with Project infrastructure or vessels, construction activities will be reviewed by the EM in consultation with a QP to identify mitigation measures to reduce the risk of future conflicts or mortality events.

### 6.1.2.8 Record Keeping

Inxwantas (Monitoring) during construction will include recording seḵw'eḵw'inexw (wildlife) observations, including incident and mortality events. Records will be made on a Wildlife Observation and Incident Reporting Form (Appendix A) and forms will be reviewed by the EM, with support from QPs as needed. The EM will review seḵw'eḵw'inexw (wildlife) records regularly with a QP to determine whether adaptive measures are required. Record keeping includes the following:

- Recording seḵw'eḵw'inexw (wildlife) incidents and mortality events (e.g., bird strikes on buildings, bird electrocutions, vehicle or equipment collisions), including identifying known or probable cause, species, and follow-up or corrective/adaptive management action (i.e., additional mitigations) implemented
- Recording detections of SOMC
- Follow-up inxwantas (monitoring) of additional mitigations implemented under the adaptive management process

## 6.2 ADAPTIVE MANAGEMENT

Woodfibre LNG will use an adaptive management process to evaluate performance objectives and to guide management actions. The adaptive management process comprises seven steps: assess, design, implement, monitor, evaluate, adapt, and update the WMMP. These steps are described as follows:

1. Assess: This consists of an assessment of the potential effects of the Project on seḵw'eḵw'inexw (wildlife) and the identification of mitigation measures. This was completed through the federal, provincial, and Skwxwú7mesh Úxwumixw (Squamish Nation) environmental assessment processes, and through pre-construction seḵw'eḵw'inexw (wildlife) surveys described in Section 4.0 (e.g., see Stantec, 2022, 2023a).

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2. Design: This consists of the development of the mitigation and *ínexwantas* (monitoring) plans for construction, engineering design of the Project, and scheduling of construction activities. The Construction WMMP is a core element of this step.
3. Implement: This consists of implementing the Construction WMMP during construction.
4. Monitor: This consists of implementing the *ínexwantas* (monitoring) programs described in Section 6.1.
5. Evaluate: Results of *ínexwantas* (monitoring) will be reviewed to inform whether mitigation measures are functioning as intended and if additional mitigations are required. Woodfibre LNG will develop, in consultation with a QP, *ínexwantas* (monitoring) performance measures (e.g., targets, thresholds, and site objectives) to evaluate effectiveness of mitigations during construction and operation.
6. Adapt: If *sekw'ekw'ínexw* (wildlife) conflicts and interactions occur, or if mitigations implemented are shown to be ineffective where targets, thresholds, or site objectives are not being met, a QP will work with the Woodfibre LNG Environmental Representative and construction team to improve the mitigations and reduce the number of incidents. The targets, thresholds, and/or site objectives for additional mitigations are linked to the significance determination framework used by the BC EAO in its Assessment Report for the original Application (BC EAO, 2015); if the magnitude, extent, or frequency of effects are expected to change, then adaptive management measures will be applied.
7. Update Construction WMMP: When adaptive management strategies necessitate an update to this Construction WMMP, Woodfibre LNG will prepare a red-line version of the document that identifies what triggered the need for improvement (i.e., which target, threshold, or site objective was not met) and the changes that were made to address a concern. The red-line version will be issued to Indigenous groups and regulatory agencies for a 30-day review and comment period. After comments are received, the document will be updated and issued as the next revision.

## 7.0 REPORTING

In accordance with FDS Condition 13, Woodfibre LNG's EM will maintain records of information related to the implementation of conditions set out in the FDS and the results of associated *ínexwantas* (monitoring) and adaptive management. This includes dates, locations, and times of *ínexwantas* (monitoring); the techniques, methods, or procedures used; *sekw'eḵw'inexw* (wildlife) incidents and potential conflicts; and the names of the persons involved and documentation of their professional certifications.

As part of EAC Condition 1, Woodfibre LNG will prepare monthly and annual reports on compliance with EAC conditions. These reports will present summaries of the methods and results of *ínexwantas* (monitoring) completed, adaptive management measures implemented (if any), and the conclusions of the evaluation. Observations of *sekw'eḵw'inexw* (wildlife) including incidents or potential conflicts and possible cause, and corrective actions implemented, will be included in the reports. Updates to the status of listed species will be included in annual *ínexwantas* (monitoring) reports. Reports will be provided to *Sḵwxwú7mesh Úxwumixw* (Squamish Nation), *səlilwətał* (Tseil-Waututh) Nation, and the BC EAO.

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## 8.2 PERSONAL OBSERVATIONS

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# **APPENDIX A**

## **Wildlife Observation and Incident Reporting Form**

# **APPENDIX A WILDLIFE OBSERVATION AND INCIDENT REPORTING FORM**

## Woodfibre LNG – Wildlife Observation and Incident Reporting Form

Name of Observer(s):	Date:
Location:	Species (if unknown, describe size colour, etc.):
Behaviour of Animal (e.g., distressed, injured):	Description of Observation or Incident:
Action Taken (if needed, use a Wildlife Incident Response Kit available on site and follow the guidance sheet):	Follow-up (e.g., monitoring, additional mitigations):
Photos (include with form or identify where photos are located):	

### Environmental Monitor or Environmental Representative Sign-off:

Name:	Signature:	Date:
Reported to appropriate agency, if applicable?	Agency:	Date:

The Environmental Representative is responsible for reporting to the appropriate agency or authority, if applicable. The following resources are:

[BC Government information](#) for what to do if you find a sick, injured, or dead wildlife.

**For bats**, if discovered flying during winter or early spring or found dead, please report it the B.C. Community Bat Program at 1-855-922-2287 or [info@bcbats.ca](mailto:info@bcbats.ca).

**For birds**, call 1-866-431-BIRD (2473) and read [The BC Interagency Wild Bird Mortality Investigation Protocol & the 2022 Avian Influenza Surveillance Program](#).

**If a migratory bird, or its active nest or egg**, is accidentally harmed or destroyed, report the incident to the Canadian Wildlife Service ([IncidentalTake.PriseAccesoire@ec.gc.ca](mailto:IncidentalTake.PriseAccesoire@ec.gc.ca)).