



**Westcoast Connector
Gas Transmission**

Westcoast Connector Gas Transmission Project

Wildlife and Wildlife Habitat Management Plan
Conditions 19, 20, 21

Revision 1

January 2022

Prepared for:

Westcoast Connector Gas Transmission Ltd.

Prepared by:

Jacobs Consultancy Canada Inc.

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Westcoast Connector Gas Transmission Project

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Land Acknowledgement

We acknowledge that the Westcoast Connector Gas Transmission project (WCGT Project) area is in the Traditional and Ancestral Territory of many Indigenous Peoples, presently subject to the Nisga'a Treaty, Treaty 8, and vast areas of unceded Indigenous Traditional lands. These Indigenous groups include the Nisga'a Nation, Prophet River First Nation, Blueberry River First Nations, Doig River First Nation, Gitanyow Hereditary Chiefs, Gitxsan Hereditary Wilp, Halfway River First Nation, Kitselas First Nation, Kitsumkalum First Nation, Lake Babine Nation, Lax Kw'alaams First Nation, Wilp Luuxhon, Metlakatla First Nation, Sauteau First Nation, Takla Lake First Nation, Tsay Keh Dene First Nation, West Moberly First Nations, Nak'azdli First Nation, McLeod Lake Band, Gitxaala Nation, and the Métis Nation British Columbia

We acknowledge the many Indigenous Peoples who live on care for these lands and have for generations. We are grateful for the traditional Knowledge Keepers and Elders who are still with us today and those who have gone before us. We make this acknowledgement as an act of reconciliation and gratitude to those whose territory we reside on or are visiting.

Executive Summary

The British Columbia Environmental Assessment Office (BC EAO) issued an Environmental Assessment Certificate (Certificate) to Westcoast Connector Gas Transmission Ltd. (WCGT Ltd.) for the WCGT Project on November 25, 2014, and later granted a 5-year extension to the Certificate on April 25, 2019. The Certificate expires on November 25, 2024.

The WCGT Project approved in the Certificate includes the potential to build two 48-inch diameter natural gas pipelines within the same right-of-way along with compressor stations that could potentially service multiple liquefied natural gas (LNG) terminal sites starting at Cypress in northeast British Columbia (BC) and ending at Ridley Island on the north coast. The Certificate provided the flexibility to choose one of two routes to the Prince Rupert area—either through the Nass Valley (Nasoga Route) or north towards Kitsault (Kitsault Route).

WCGT Ltd. is actively developing the WCGT Project to build one express, single-purpose natural gas pipeline from a compressor station near Willow Flats in northeast BC to a delivery point at Wil Milit on the north coast to supply natural gas to potential LNG terminal sites (the Project).

The Certificate granted for the WCGT Project is subject to 43 Conditions. The purpose of the Wildlife and Wildlife Habitat Management Plan (WWHMP or the Plan) is to address the requirements of Certificate Conditions 19, 20 and 21.

WCGT Ltd. is engaging with Indigenous groups and relevant regulatory authorities (RRAs) in the development of this detailed outline to support the full build-out of the Plan. Through engagement, WCGT Ltd. is seeking collaboration in the development of the Plan and any information that can be shared to strengthen the Plan and the commitment to fulfilling Conditions 19, 20, and 21.

WCGT Ltd. acknowledges the inherent connection Indigenous Peoples have with the land and that while the Plan will satisfy the regulatory requirement, the Plan is intended to minimize impacts to wildlife and wildlife habitat by incorporating Indigenous Knowledge and ensuring concerns are addressed during mitigation development. In addition, Environment and Climate Change Canada is being consulted on the development of mitigation and monitoring specific to marbled murrelet.

The scope of the Plan includes:

- Linkages to other plans, purpose and objectives, roles and responsibilities, implementation schedule, and future updates (Section 2);
- Methods for engaging the Indigenous groups and RRAs and a description of how engagement outcomes help shape the Plan (Section 3);
- Regulatory requirements related to pre-construction, construction, and post-construction (operation phase) activities of the Project that may impact wildlife and wildlife habitat (Section 4)
- A summary of the wildlife field surveys conducted for the Project and the additional pre-construction surveys planned to support mitigation implementation (Section 5);
- A description of the wildlife and wildlife habitat mitigation measures to be implemented during construction and operation activities of the Project (Section 6);
- A description of the monitoring program (Section 7);
- A description of the adaptive management program in relation to wildlife and wildlife habitat, including how the results of monitoring will inform adaptive management (Section 8);

- A plan for reporting on the implementation of the Plan including the schedule, content, and recipients of reports (Section 9);
- References (Section 10);
- Species with conservation status that have potential to interact with the Project (Appendix A);
- Known habitat features for species listed under Schedule 1 of the *Species at Risk Act* (Appendix B); and
- Marbled murrelet critical habitat assessment (Appendix C).

Table of Concordance

Table 0-1 describes how the Plan will address the applicable Certificate Conditions.

Table 0-1. Concordance with Certificate Conditions 19: Wildlife and Wildlife Habitat Management Plan, 20: Aerial Survey Guidelines, and 21: Marbled Murrelet Critical Habitat

Certificate Condition	Section
<i>Condition 19 - Wildlife and Wildlife Habitat Management Plan</i>	
The Holder must develop and implement a Wildlife and Wildlife Habitat Management Plan. The purpose of the Plan is to include all relevant wildlife mitigation, as set out in Appendix 3-A of the Application, as well as the Environmental Management Plan in one document. The Plan must be developed in consultation with BC MFLNRORD and BC OGC and:	Sections 2 and 3
a) Provide specific information on how and when the mitigation will be implemented throughout the life of the Project;	Section 6
b) Include the results of site assessment surveys for all habitat features of Schedule 1 <i>Species at Risk Act</i> listed species within the Certified Pipeline Corridor and propose mitigation to mitigate adverse effects of the Project on such habitat features;	Section 5
c) Provide information on the specific mitigation that will be implemented for habitat features that are encountered within the Certified Pipeline Corridor;	Section 6
d) Provide a monitoring program to assess the effectiveness of the mitigation for moose populations (excluding moose in the Nass Wildlife Area) in the Certified Pipeline Corridor during Construction and Operations; and	Subsection 7.2
e) Describe the Holder's plan for reporting on the implementation of the Plan as part of the Holder's five-year post-Construction monitoring program to BC MFLNRORD, BC OGC and BC EAO.	Section 9
In order to allow 60-day review and comment period, the Holder must provide the Plan to BC EAO no later than 90 days prior to the Holder's planned date to commence Construction. Once the Plan is complete, the Holder must also provide the Plan to BC OGC.	Section 9
<i>Condition 20 – Aerial Survey Guidelines</i>	
The Holder must only conduct low elevation helicopter and fixed wing flights over UWR and WHA within the Certified Pipeline Corridor (i) in accordance with the timing windows and recommended minimum separation distances specified in the General Wildlife Measures for those areas, or(ii) as recommended by BC MFLNRORD, where timing windows or separation distances are not specified in the General Wildlife Measures for the UWR or WHA, unless exceptions to (i) or (ii) are otherwise authorized by BC EAO. This condition does not limit the Holder's actions in emergency circumstances.	Subsections 6.1.2 and 6.3
<i>Condition 21 – Marbled Murrelet Critical Habitat</i>	
The Holder must develop and implement mitigation, including monitoring provisions that are consistent with ECC's <i>Recovery Strategy for Marbled Murrelet in Canada</i> (EC 2014) for those portions of the Certified Pipeline Corridor that overlap with Marbled Murrelet Critical Habitat (the Area).	Sections 5 and 6 Appendix C

Table 0-1. Concordance with Certificate Conditions 19: Wildlife and Wildlife Habitat Management Plan, 20: Aerial Survey Guidelines, and 21: Marbled Murrelet Critical Habitat

Certificate Condition	Section
The Holder must develop such mitigation and monitoring provisions in consultation with ECCC, BC MFLNRORD and BC OGC. The objective of such mitigation must be to avoid or minimize impacts of any Project-related incursions into the Area.	Sections 3, 6, and 7 Appendix C
In order to allow 60 days review and comment, the Holder must provide the mitigation to BC EAO no less than 90 days prior to the Holder's planned date to commence Construction in the Area.	Section 9

Reference:

Environment Canada (EC). 2014. Recovery Strategy for the Marbled Murrelet (*Brachyramphus marmoratus*) in Canada. *Species at Risk Act* Recovery Strategy Series. Environment Canada, Ottawa. v + 49pp. Accessed September 2021. https://sararegistry.gc.ca/virtual_sara/files/plans/rs_guillemot_marbre_marbled_murrelet_0614_e.pdf

Notes:

BC EAO = British Columbia Environmental Assessment Office

BC OGC = British Columbia Oil and Gas Commission

BC MFLNRORD = British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development

ECCC = Environment and Climate Change Canada

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Acronyms and Abbreviations

AMP	Access Management Plan
BC	British Columbia
BC EAO	British Columbia Environmental Assessment Office
BC MFLNRORD	British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development
BC OGC	British Columbia Oil and Gas Commission
Certificate	Environmental Assessment Certificate
CMMP	Caribou Mitigation and Monitoring Plan
CPC	Certified Pipeline Corridor
ECCC	Environment and Climate Change Canada
<i>FRPA</i>	<i>Forest and Range Practices Act</i>
GBMMP	Grizzly Bear Mitigation and Monitoring Plan
HWCMP	Human-Wildlife Conflict Management Plan
LNG	liquefied natural gas
LRMP	Land and Resource Management Plan
MMP	Moose Monitoring Plan
NWRP	Nisga'a Watercourse Restoration Plan
NWA	Nass Wildlife Area
<i>OGAA</i>	<i>Oil and Gas Activities Act</i>
PCM	post-construction monitoring
Project	one express, single-purpose natural gas pipeline from a compressor station near Willow Flats in northeast British Columbia to a delivery point at Wil Millit on the north coast to supply natural gas to potential liquefied natural gas terminal sites
QP	Qualified Professional
RP	Restoration Plan
RRA	Relevant Regulatory Authority
<i>SARA</i>	<i>Species at Risk Act</i>
SRMP	Sustainable Resource Management Plan
TCEMP	Terrestrial Construction Environmental Management Plan
TSS	Timber Salvage Strategy
UWR	Ungulate Winter Range
WCGT Ltd.	Westcoast Gas Transmission Ltd.
WCGT Project	Westcoast Connector Gas Transmission Project

WHA	Wildlife Habitat Area
WMP	Wetlands Management Plan
WWHMP or Plan	Wildlife and Wildlife Habitat Management Plan

1. Introduction

The British Columbia Environmental Assessment Office (BC EAO) issued an Environmental Assessment Certificate (Certificate) to Westcoast Connector Gas Transmission Ltd. (WCGT Ltd.) for the Westcoast Connector Gas Transmission Project (WCGT Project) on November 25, 2014, and later granted a 5-year extension to the Certificate on April 25, 2019. The Certificate expires on November 25, 2024. The Certificate granted for the WCGT Project is subject to 43 Conditions. The purpose of the Wildlife and Wildlife Habitat Management Plan (WWHMP or the Plan) is to address the requirements of Certificate Conditions 19, 20, and 21.

WCGT Ltd. is engaging with Indigenous groups and Relevant Regulatory Authorities (RRAs) in the development of this detailed outline to support the full build-out of the Plan. Through engagement, WCGT Ltd. is seeking collaboration in the development of the Plan and any information that can be shared to strengthen the Plan and the commitment to fulfilling Condition 19, 20, and 21.

WCGT Ltd. acknowledges the inherent connection Indigenous Peoples have with the land and that while the Plan will satisfy the regulatory requirement, the Plan is intended to minimize impacts to wildlife and wildlife habitat by incorporating Indigenous Knowledge and ensuring concerns are addressed during mitigation development.

1.1 Project Description

The WCGT Project approved in the Certificate includes the potential to build two 48-inch diameter natural gas pipelines within the same right-of-way along with compressor stations that could potentially service multiple liquefied natural gas (LNG) terminal sites starting at Cypress in northeast British Columbia (BC) and ending at Ridley Island on the north coast. The Certificate provided the flexibility to choose one of two routes to the Prince Rupert area—either through the Nass Valley (Nasoga Route) or north towards Kitsault (Kitsault Route).

WCGT Ltd. is actively developing the WCGT Project to build one express, single-purpose natural gas pipeline from a compressor station near Willow Flats in northeast BC to a delivery point at Wil Milit on the north coast to supply natural gas to potential LNG terminal sites (the Project) (Figure 1).

The new compressor station at Willow Flats will have the potential to connect to Enbridge Inc.'s Westcoast Energy Inc. pipeline system near Compressor Station 2 or TC Energy's NGTL system, eliminating the need for the pipeline corridor from Cypress to Willow Flats and the compressor station at Cypress. WCGT Ltd. will apply to the BC EAO to amend its Certificate to:

- 1) remove approximately 100 kilometres of the Certified Pipeline Corridor from Cypress to Willow Flats; and
- 2) change the location of the compressor station from Cypress to Willow Flats.

The new delivery point for the pipeline will be near Wil Milit. WCGT Ltd. will apply to the BC EAO to amend its Certificate to make routing changes along its approved Nasoga Route to end the first pipeline at Wil Milit. WCGT Ltd. will retain the option to expand the WCGT Project to the currently approved delivery point at Ridley Island at a later date.

- 1 WCGT Ltd. is developing condition plans for the Project with Indigenous groups and stakeholders for
- 2 submission to the BC EAO in accordance with its Certificate. The condition plans will address potential
- 3 impacts from the Project, which includes the first pipeline from Willow Flats to Wil Milit, one compressor
- 4 station at Willow Flats and the necessary meter stations.

- 5 WCGT Ltd. does not have plans to build the second pipeline at this time; however, should it decide to
- 6 construct a second pipeline, increase capacity by adding compressor stations or extend the first pipeline to
- 7 Ridley Island, WCGT Ltd. will submit revised or new condition plans to the BC EAO in accordance with
- 8 Condition 1 of its Certificate.



- Town/Village/Service Area
- Kilometre Marker
- WCGT Pipeline Route
- Railway
- Highway
- - - International Border
- Watercourse
- Water Body

ENBRIDGE
Westcoast Connector Gas Transmission

SCALE: 1:1,500,000

0 14,000 28,000 42,000 56,000 m
(All Locations Approximate)

FIGURE 1
REGIONAL OVERVIEW
WESTCOAST CONNECTOR GAS TRANSMISSION LTD.
WESTCOAST CONNECTOR GAS TRANSMISSION PROJECT

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NAD 1983 BC Environment Albers
Hillshade Background: TERA Environmental 2008;
Highways/Roads: NRCAN 2015; Railways: NRCAN 2012; Hydrology: BC FLNRO 2008; Reserves: Government of Canada 2018; Legal Grid: TERA Environmental Consultants 2010; Watercourse Crossings: Jacobs 2021; Project Components: Enbridge 2021.

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Although there is no reason to believe that there are any errors associated with the data used to generate this product or in the product itself, users of these data are advised that errors in the data may be present.

1 1.2 Project Interactions with Wildlife and Wildlife Habitat

2 The WWHMP is intended to include all Project interactions with wildlife and wildlife habitat, including
3 potential direct and indirect impacts. The biophysical features along the Project have been extensively
4 studied. WCGT Ltd. will continue to commission the required biophysical studies along the proposed
5 pipeline route and associated infrastructure sites. Information from these studies has been used to further
6 refine and optimize the Project footprint.

7 Following the hierarchy of avoid, minimize, and restore-on-site, Project planning considerations provided
8 the opportunity to avoid Project interactions with wildlife and wildlife habitat. In general, the primary
9 objective is to locate the pipeline contiguous with existing linear disturbances wherever possible. Where
10 this was not possible, the hierarchy of routing criteria in descending order of preference included the
11 following: parallel other linear corridors; identify new routing (greenfield) to balance several engineering,
12 cultural, construction, environmental, cultural and socio-economic factors; and, in the case of new routing,
13 minimize the length away from existing linear corridors.

14 This section will discuss the Project interactions with identified wildlife habitats (e.g., Ungulate Winter
15 Ranges [UWRs], Wildlife Habitat Areas [WHAs], caribou ranges and associated important habitats and
16 protected zones, protected areas, migratory bird nesting zones, critical habitat, and grizzly bear population
17 units and management areas [e.g., Great Bear Rainforest Order – Central and North Coast Area]). Figures
18 will be provided to show the Project interactions with these habitats.

2. Plan Overview

The WWHMP is being developed to meet the requirements of t Certificate Conditions 19, 20, and 21. The WWHMP will be developed in collaboration with Indigenous Groups and RRAs.

The scope of the WWHMP includes:

- Linkages to other plans, purpose and objectives, roles and responsibilities, implementation schedule, and future updates (Section 2);
- Methods for engaging the Indigenous groups and RRAs and a description of how engagement outcomes help shape the Plan (Section 3);
- Regulatory requirements related to pre-construction, construction, and post-construction (operation phase) activities of the Project that may impact wildlife and wildlife habitat (Section 4);
- A summary of the wildlife field surveys conducted for the Project and the additional pre-construction surveys planned to support mitigation implementation (Section 5);
- A description of the wildlife and wildlife habitat mitigation measures to be implemented during construction and operation activities of the Project (Section 6);
- A description of the monitoring program (Section 7);
- A description of the adaptive management program in relation to wildlife and wildlife habitat, including how the results of monitoring will inform adaptive management (Section 8);
- A plan for reporting on the implementation of the WWHMP including the schedule, content, and recipients of reports (Section 9);
- References (Section 10);
- Species with conservation status that have potential to interact with the Project (Appendix A);
- Known habitat features for species listed under Schedule 1 of the *Species at Risk Act (SARA)* (Appendix B); and
- Marbled murrelet critical habitat assessment (Appendix C).

2.1 Purpose and Objectives

The purpose of the WWHMP is to satisfy the applicable Certificate Conditions, specifically Conditions 19, 20, and 21. The objectives of the WWHMP are to:

- Avoid or minimize wildlife habitat loss or alteration and fragmentation;
- Avoid or minimize sensory disturbance and displacement of wildlife;
- Avoid or minimize direct wildlife mortalities as a result of Project construction and operations; and
- Avoid or minimize Project effects on marbled murrelet critical habitat, and align with provincial and federal strategies and targets for recovery of marbled murrelet.

To determine whether the WWHMP meets the objectives, performance indicators and targets will be monitored and measured (Section 7) to evaluate the effectiveness of wildlife and wildlife habitat mitigation measures (Section 6).

- 1 Plans to address occurrences of inadequate mitigation or unanticipated Project effects are discussed (Section 8).
- 2
- 3 **2.2 Linkages to Other Condition Plans**
- 4 Information on other condition plans prepared for the Project will be considered in the WWHMP (Table 2-1).

Table 2-1. Linkages to Other Condition Plans

Plan	Description	Linkages to this Plan
Condition 12 - Wetlands Management Plan (WMP)	The WMP includes results of pre-construction surveys, recommends mitigation measures to be implemented during construction, and outlines the post-construction monitoring program for wetlands. The WMP also includes consideration of the objectives for the Sensitive Area Plan for Mugaha Marsh as required by Condition 26.	The WMP contains general construction and restoration measures applicable to wetlands affected by the Project. Wetlands can provide important breeding and foraging habitat for many wildlife species, some of which require wetland habitat during all or some life stages.
Condition 13 - Grizzly Bear Mitigation and Monitoring Plan (GBMMP)	The GBMMP outlines strategies to avoid sensory disturbance and incremental mortality risk to grizzly bears during construction and operations. It also provides a plan for monitoring the success of mitigation, and reporting requirements.	The GBMMP contains commitments to avoid and mitigate Project effects on grizzly bear and their habitat. Avoiding and mitigating effects on grizzly bear and their habitat has potential to impact other wildlife and their habitat such as wildlife with overlapping habitat and grizzly bear prey animals.
Condition 15 - Human-Wildlife Conflict Management Plan (HWCMP)	The HWCMP recommends mitigation measures for avoiding wildlife mortalities during construction and operations.	The HWCMP provides measures to avoid or minimize wildlife mortality risk during construction and operation of the Project.
Condition 16 - Caribou Mitigation and Management Plan (CMMP)	The CMMP outlines strategies to avoid displacement and sensory disturbance to caribou, avoid increased predation, and target objectives of no net loss of habitat. It also provides a plan for monitoring the success of the strategies, reporting requirements, and offsetting plans in the event the strategies are unsuccessful.	The CMMP outlines measures to avoid or mitigate impacts to caribou and their habitat during construction and operation of the Project. The CMMP shares several mitigation measures with the WWHMP intended to reduce habitat loss and avoid or minimize wildlife mortality risk.
Condition 18 - Moose Monitoring Plan (MMP)	The MMP recommends mitigation measures to reduce moose mortality risk during construction and operations in the Nass Wildlife Area (NWA). It also includes reporting requirements.	The MMP outlines measures to avoid or mitigate impacts to moose and their habitat within the NWA during construction and operation of the Project. The monitoring plan for moose outside the NWA (as specified in this Plan) is consistent with the MMP for the NWA.

Table 2-1. Linkages to Other Condition Plans

Plan	Description	Linkages to this Plan
Condition 22 - Access Management Plan (AMP)	The AMP provides the means by which access will be controlled, the types and locations of access requirements, rationale to demonstrate the necessity of any new temporary or permanent access, access control management measures that will be implemented during construction and operations, and post-construction monitoring requirements.	The AMP provides measures to restrict or discourage unauthorized motorized access on the Project footprint, which can affect wildlife mortality risk.
Condition 25 - Restoration Plan (RP)	The RP provides recommendations for soil handling, construction clean-up, erosion control measures, revegetation plans, and life of Project vegetation management.	The RP outlines measures to limit habitat disturbance and reclaim disturbed habitats upon completion of construction. The RP shares several mitigation measures with the WWHMP intended to reduce habitat loss and alteration.
Condition 30 – Timber Salvage Strategy (TSS)	The TSS includes timber volume estimates for the Project footprint, salvage activities, marketing commitments, and reconciliation reporting requirements.	The TSS identifies Project interactions with Wildlife Tree Retention Areas.
Condition 35 - Terrestrial Construction Environmental Management Plan (TCEMP)	<p>The TCEMP describes WCGT Ltd.'s environmental procedures and mitigation measures to field and construction personnel. These environmental procedures and mitigation measures will be implemented during Construction of the Project to mitigate, avoid, or reduce potential adverse environmental effects. The TCEMP serves as reference information for construction and inspection personnel to support decision making and to provide direction to more detailed information (i.e., resource-specific mitigation, management, and contingency plans).</p> <p>The TCEMP also includes mitigation measures to address additional Conditions:</p> <ul style="list-style-type: none"> ▪ Condition 23 – integrated pest management ▪ Condition 24 – Red- and Blue-listed plants and ecological communities ▪ Condition 27 – mitigation for Red- and Blue-listed or culturally important lichen and plant species within the Nisga'a Lava Bed Memorial Park 	The TCEMP includes measures to limit habitat disturbance, avoid human/wildlife encounters or conflict, maintain wildlife movement, and reclaim disturbed habitats upon completion of Construction. The TCEMP includes a Wildlife Encounter Contingency Plan, which outlines the procedures that will be implemented in the event wildlife species or habitat, and/or wildlife species of concern are detected during Project activities. The TCEMP also includes a post-construction monitoring (PCM) program that will be used to monitor effectiveness of mitigation to reclaim wildlife habitat disturbed by the Project.

Table 2-1. Linkages to Other Condition Plans

Plan	Description	Linkages to this Plan
Condition 43 – Nisga'a Watercourse Restoration Plan (NWRP)	The NWRP will outline the objectives for achieving no net loss of environmental function for areas where the pipeline route intersects existing aquatic or riparian habitat restoration or compensation sites within Nisga'a Lands.	The NWRP includes additional measures to protect riparian habitat within the Nisga'a Lands. Watercourses and riparian areas provide important habitat for wildlife.

1 2.3 Implementation Schedule

2 The WWHMP will be submitted to the BC EAO at least 90 days before the commencement of construction.
 3 Project planning continues prior to the start of clearing and construction as per the latest Project schedule.
 4 The Plan will be implemented throughout construction under the supervision of a Qualified Professional
 5 (QP), and as described throughout the TCEMP.

6 WCGT Ltd. will monitor mitigation effectiveness during the construction period and in the first, third, and
 7 fifth years following the first full growing season after completion of final clean-up. Routine operational
 8 monitoring will occur over the life of the Project (Section 6).

9 2.4 Future Updates to the Wildlife and Wildlife Habitat Management Plan

10 Revisions to the WWHMP could occur as a result of:

- 11 ▪ Engagement programs with Indigenous groups;
- 12 ▪ Additional information becoming available (e.g., updated provincial or federal species management or
 13 recovery plans);
- 14 ▪ Changes to Project planning (e.g., engineering changes);
- 15 ▪ Commitments made during the regulatory review process; and
- 16 ▪ Regulatory permits and authorization Conditions.

17 WCGT Ltd. will not inform Indigenous groups and RRAs when minor revisions are made to the Plan (i.e.,
 18 small changes that would not affect the scope and objectives of the Plan).

19 Indigenous groups and RRAs will be provided an opportunity to review and provide comment on material
 20 revisions to the Plan (i.e., changes to the scope or mitigation and monitoring requirements). A Document
 21 History table listing version, date, and distribution will be provided in this document.

1 **3. Engagement**

2 The WWHMP is being developed through engagement with Indigenous groups, the BC Ministry of Forests,
3 Lands, Natural Resource Operations and Rural Development (BC MFLNRORD), and the BC Oil and Gas
4 Commission (BC OGC). The Plan will be provided to the BC EAO for review and comment at least 90 days
5 prior to the planned commencement of construction. A copy of the final Plan will be provided to the BC OGC.

6 Throughout the development of the detailed outline, WCGT Ltd. is engaging to ensure the Plan is
7 reflective of Indigenous interests and concerns, meets the intent of Certificate Condition 19, 20, and 21,
8 and aligns with regulatory requirements as informed by RRA reviewers.

9 WCGT Ltd. is engaging on the content and approach outlined in this detailed outline. Through this review,
10 WCGT Ltd. wants to ensure a collaborative approach at this early stage and that the outline captures the
11 intent and expectation of the Certificate Conditions, as well as interests and concerns raised by Indigenous
12 groups and RRAs. The information that WCGT Ltd. receives will inform the drafting of the full content of
13 the Plan. WCGT Ltd. will document and track all comments and recommendations received and provide a
14 description on how this information has been considered and incorporated into the Plan.

1 4. Regulatory Framework

2 The WWHMP will be developed in the context of federal and provincial regulations and policies pertaining
3 to wildlife management and aims to complement wildlife management and recovery objectives. A brief
4 description of the regulations, policies, and plans used to develop the WWHMP will be provided in the
5 following sections.

6 Current species status designations, recovery strategies, and management planning documents will be
7 considered in the development of the mitigation included in the WWHMP. A summary of the status of
8 species at risk that may interact with the Project will be included in Appendix A.

9 Additional regulatory information specific to caribou and grizzly bear will be provided in the CMMP
10 (Condition 16) and GBMMP (Condition 13). The other mitigation plans with linkages to the WWHMP
11 (Table 2-1) will provide further regulatory guidance relevant to wildlife and wildlife habitat.

12 4.1 Indigenous Land Use Planning Documents

13 Indigenous Land Use planning documents provide strategic direction for resource management activities.
14 These plans provide direction for areas with general and specific resource values that are managed to
15 sustain environmental, social, economic, or cultural values.

16 Indigenous Land Use planning documents applicable to the Plan include:

- 17 ▪ Kitselas Land Use Plan
- 18 ▪ Metlakatla Land Use Plan
- 19 ▪ A Land Use Plan for Nisga'a Lands

20 4.2 Regional and Municipal Land Management Plans

21 Land and Resource Management Plans (LRMPs) and Sustainable Resource Management Plans (SRMPs)
22 strategic direction for resource management activities. These documents provide guidance for areas with
23 general and specific resource values that are managed to sustain environmental, social, or economic
24 values.

25 Resource management planning documents applicable to the Plan include:

- 26 ▪ Dawson Creek LRMP
- 27 ▪ Dunlevy Creek Management Plan
- 28 ▪ Forth St. John LRMP
- 29 ▪ Fort St. James LRMP
- 30 ▪ Mackenzie LRMP
- 31 ▪ Mugaha Marsh Order
- 32 ▪ Prince George LRMP
- 33 ▪ Vanderhoof LRMP
- 34 ▪ Babine River Interim Local Resource Use Plan
- 35 ▪ Bulkley LRMP
- 36 ▪ Bulkley SRMP
- 37 ▪ Central Coast LRMP
- 38 ▪ Cranberry SRMP
- 39 ▪ Kalum LRMP
- 40 ▪ Kalum SRMP

- 1 ▪ Kispiox LRMP
- 2 ▪ Kispiox Higher Level Plan Objectives
- 3 ▪ Lakes District LRMP
- 4 ▪ North Lakes LRMP
- 5 ▪ North Lakes SRMP
- 6 ▪ Morice LRMP
- 7 ▪ Hass South SRMP
- 8 ▪ Nisga'a Memorial Lava Bed Park Master Plan
- 9 ▪ Kitselas Land Use Plan
- 10 ▪ Metlakatla Land Use Plan

11 4.3 Provincial

12 The following provincial legislation, regulations and policies are applicable to the Plan:

- 13 ▪ *BC Wildlife Act*
- 14 ▪ *BC Oil and Gas Activities Act (OGAA)*
- 15 ▪ *BC Environmental Protection and Management Regulation*
- 16 ▪ *BC Forest and Range Practices Act (FRPA)*
- 17 ▪ Policy for Mitigating Impacts on Environmental Values (BC MOE 2014a) and the accompanying
- 18 Procedure for Mitigating Impacts on Environmental Values (BC MOE 2014b)

19 4.4 Federal

20 The following federal legislation and regulations are applicable to the Plan:

- 21 ▪ *Migratory Birds Convention Act*
- 22 ▪ *Migratory Birds Regulation*
- 23 ▪ *SARA*

24 4.5 Species-Specific Regulatory Framework

25 The following guidelines, strategies and best management practices documents provide species-specific
26 guidance, including but not limited to sensitive timing windows and setbacks, that will frame the
27 mitigation strategy for the Plan:

- 28 ▪ Environmental Protection and Management Guideline
- 29 ▪ A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British
30 Columbia
- 31 ▪ Identified Wildlife Management Strategy: Accounts and Measures for Managing Identified Wildlife:
32 Northern Interior Forest Region
- 33 ▪ Wildlife Habitat Features Summary of Management Guidelines Northern Interior Forest Region
- 34 ▪ Best Management Practices for Linear Developments Proposed within the Peace Region
- 35 ▪ Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British
36 Columbia
- 37 ▪ Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia

- 1 ▪ Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British
2 Columbia
- 3 ▪ General Nesting Periods of Migratory Birds in Canada
- 4 ▪ A Best Management Practice for Pipelines
- 5 ▪ Standard Methods for Identifying and Ranking Nesting Habitat of Marbled Murrelets (*Brachyramphus*
6 *marmoratus*) in British Columbia Using Air Photo Interpretation and Low-Level Aerial Surveys
- 7 ▪ Management Plan for the Mountain Goat (*Oreamnos americanus*) in BC
- 8 ▪ Orders and General Wildlife Measures for approved WHAs and UWRs:
 - 9 – Order - WHAs 7-094 and 7-095 for caribou
 - 10 – Order – UWR 7-025 for caribou
 - 11 – Order – UWR 7-026 for caribou
 - 12 – Order - UWR 6-007 for mountain goat
 - 13 – Order – UWR 6-010 for mountain goat
 - 14 – Order - UWR 6-009 for moose

1 5. Site Assessment Surveys

2 Field surveys were completed as part of the baseline data collection for the Certificate in 2012, 2013, and
3 2014 and aided in refinement of the Project footprint. WCGT Ltd. initiated additional field surveys in fall
4 2021 to inform Project design and the mitigation to be included in the Plan and the TCEMP.

5 WCGT Ltd. will continue to commission wildlife field surveys as Project planning progresses, in
6 collaboration with Indigenous groups. Relevant results of field surveys, including incidental records, will be
7 used to inform Project design and mitigation (Section 6). Known habitat features for wildlife species listed
8 under Schedule 1 of *SARA* will be summarized in Appendix B.

9 The Plan will summarize the wildlife surveys for the Project, including:

- 10 ▪ Wildlife habitat feature surveys (aerial and ground reconnaissance)
- 11 ▪ Winter track surveys
- 12 ▪ Aerial waterbird surveys (breeding and fall staging)
- 13 ▪ Breeding bird surveys
- 14 ▪ Amphibian surveys
- 15 ▪ Acoustic monitoring
- 16 ▪ Marbled murrelet critical habitat survey
- 17 ▪ Bear den surveys

18 Indigenous groups and RRAs will be engaged to refine the wildlife and wildlife habitat surveys needed.

1 6. Mitigation Program

2 The WWHMP will outline mitigation to be implemented to avoid or minimize wildlife habitat loss or
3 alteration and fragmentation, avoid or minimize sensory disturbance and displacement of wildlife, and
4 avoid or minimize Project effects on marbled murrelet critical habitat and align with provincial and federal
5 strategies and targets for recovery of marbled murrelet.

6 Project planning and mitigation development consider the mitigation hierarchy of avoid, minimize,
7 restore-on-site, and offset as a last option as described in the Policy for Mitigating Impacts on
8 Environmental Values and Procedures for Mitigating Impacts on Environmental Values.

9 Following this hierarchy, WCGT Ltd. will first implement measures to avoid adverse Project effects on
10 wildlife and their habitat where site conditions and construction constraints allow, then apply appropriate
11 measures to minimize and mitigate Project effects and implement onsite habitat reclamation measures to
12 further reduce the Project's residual effects. The recommended mitigation measures will be developed in
13 accordance with WCGT Ltd. standards as well as information received through engagement with
14 Indigenous groups and industry and regulatory guidelines (Section 4).

15 Offsets are the last resort in the mitigation hierarchy. The goal is to implement mitigation to avoid the
16 need to offset. As mitigation is applied and an adaptive management approach is followed, offsets may be
17 determined to be appropriate through discussions with Indigenous groups and RRAs.

18 The mitigation strategies in the following subsections will be designed to cover the broad wildlife species
19 assemblage that could interact with the Project, with a focus on site-specific habitat features, sensitive
20 timing windows, and Identified wildlife areas.

21 6.1 Avoidance

22 Following the hierarchy of avoid, minimize, and restore-on-site, Project planning considerations provided
23 the opportunity to minimize Project effects during the route selection process. The strategies of avoidance
24 through routing, siting, and scheduling have been and will continue to be considered in Project planning.

25 6.1.1 Routing, Siting and Project Design

26 Routing and site selection criteria that reduce the potential adverse effects of the Project on wildlife and
27 their habitat will be summarized. Records of site-specific habitat features documented during Indigenous
28 Traditional Knowledge studies, as well as wildlife field surveys for the Project, will be used to inform
29 Project design.

30 6.1.2 Sensitive Timing Windows

31 Potential effects associated with sensory disturbance can be avoided by scheduling Project activities
32 outside of sensitive timing windows as much as practical. This section will summarize relevant
33 recommended timing windows and setbacks for wildlife, including timing restrictions and buffers for aerial
34 activities within UWRs.

35 6.1.3 Marbled Murrelet

36 The Project crosses critical habitat for marbled murrelet, as delineated by Environment and Climate
37 Change Canada (ECCC). Within the preliminary spatial delineation of critical habitat by ECCC, marbled

1 murrelet suitable nesting habitat is defined as the habitat that contains the specific biophysical attributes
2 required to support nesting marbled murrelet occur. Areas that do not possess most of the biophysical
3 attributes of critical habitat are not considered suitable nesting habitat.

4 In order to inform Project design (avoidance measures) and mitigation to reduce the potential Project
5 effects on marbled murrelet and critical habitat, field surveys will be conducted to determine the
6 suitability of the habitat for marbled murrelet nesting. A summary of the nesting habitat suitability
7 assessment results will be provided in Appendix C.

8 6.2 Minimize and Restore-On-site

9 As detailed design and planning phases for the Project progress, WCGT Ltd. will consider opportunities to
10 minimize Project effects on wildlife and wildlife habitat through scheduling outside of sensitive periods,
11 refinement of temporary workspace to avoid or minimize effects on wildlife habitats, use of construction
12 methods that either avoid direct disturbance or facilitate regeneration of natural vegetation communities
13 following construction, and the application of the mitigation that will be summarized in this section of the
14 Plan.

15 Restoration measures will be developed to outline restoration methods, seed mixes, and planting
16 compositions. The restoration measures will aim to establish natural vegetation that will, over time,
17 provide habitat for wildlife foraging, security, and movement.

18 6.3 Summary of Wildlife and Wildlife Habitat Mitigation

19 The relevant wildlife mitigation from the TCEMP, as well as additional measures specific to the objectives
20 of this WWHMP will be summarized.

1 7. Monitoring Program

2 To meet Conditions 19d and 21 of the Certificate, WCGT Ltd. will implement monitoring programs to test
3 the effectiveness of mitigation implemented on the Project footprint for moose and marbled murrelet.
4 Other monitoring plans pertaining to wildlife and wildlife habitat that will be implemented during the
5 post-construction phase of the Project include CMMP, GBMMP, HWCMP, AMP, MMP (specific to the NWA),
6 PCM Program (part of the TCEMP), RP, and WMP.

7 Reporting on mitigation effectiveness and compliance will be described in the TCEMP, including the
8 monitoring timeframe. Should monitoring programs indicate that the measures implemented were not
9 adequate or were ineffective at avoiding or reducing potential residual effects on wildlife and wildlife
10 habitat, follow-up measures will be implemented as described in Section 8.

11 7.1 Mitigation Compliance Monitoring

12 Roles, responsibilities, and frequency of compliance monitoring will be described in this section.

13 7.2 Moose Monitoring Program

14 The MMP (Condition 18) will address monitoring for moose specific to the NWA. To satisfy Condition 19d
15 of the Certificate, WCGT Ltd. will design and implement a moose monitoring program to assess the
16 effectiveness of the mitigation for moose populations (excluding moose in the NWA) during construction
17 and operations. WCGT Ltd. will engage Indigenous groups and RRAs to develop the moose monitoring
18 program. Key considerations for discussion include, but are not limited to:

- 19 ▪ identifying priority access control and monitoring locations;
- 20 ▪ Traditional Use and access locations that will influence the selection of access control and monitoring
21 sites;
- 22 ▪ recent or ongoing moose population monitoring programs and outcomes;
- 23 ▪ effectiveness of proposed access control measures; and
- 24 ▪ decision-criteria for site-specific mitigation implementation.

25 The moose monitoring program will identify measurable parameters and targets that will be used to
26 assess the effectiveness of mitigation. The monitoring strategy, including performance indicators and
27 targets, will be designed to collect information that can be practically measured and that will inform the
28 need for adaptive measures, within the 5-year PCM period for the Project. The targets will act as triggers for
29 implementation of corrective measures if the mitigation measures are found to be underperforming.

30 7.3 Marbled Murrelet Monitoring Program

31 To satisfy Condition 21 of the Certificate, WCGT Ltd. will monitor measures to avoid or minimize impacts of
32 any Project-related incursions into marbled murrelet critical habitat. Discussions with Indigenous groups
33 and RRAs will inform the monitoring program design.

34 7.4 Other Monitoring Programs Relevant to Wildlife and Wildlife Habitat

35 Other monitoring plans pertaining to wildlife and wildlife habitat that will be implemented during the
36 post-construction phase of the Project are outlined in the CMMP, GBMMP, HWCMP, AMP, MMP (specific to

1 the NWA), PCM Program (part of the TCEMP), RP, and WMP. The monitoring strategies for mitigation
2 compliance and habitat restoration will be summarized in the following subsections.

3 7.5 Monitoring Timeframe

4 Monitoring related to mitigation compliance, sensory disturbance or displacement, human-wildlife conflict,
5 and access management will be conducted during the construction phase of the Project. Monitoring related
6 to habitat restoration and access management will be implemented over the PCM period. The PCM Program
7 will begin following the first full growing season after final clean-up and restoration of the entire Project
8 footprint. Monitoring will occur in the first, third, and fifth years of the PCM Program.

1 8. Adaptive Management

2 This section outlines how mitigation measures will be re-evaluated should monitoring programs indicate
3 that the measures implemented were not adequate or effective at avoiding or reducing potential residual
4 effects on wildlife. Examples of the types of corrective measures that may be implemented are provided as
5 follows.

6 8.1 Adaptive Management Approach

7 The results of monitoring will inform the need for corrective measures. If, at any point during the 5-year
8 PCM Program, performance indicators are found to be underperforming and are unlikely to meet targets
9 within the 5-year timeframe, corrective measures will be implemented as soon as practicable.

10 8.2 Potential Corrective Measures

11 Should it be determined during PCM that corrective measures are needed, recommended measures will be
12 identified on a case-by-case basis and will depend on the site--specific conditions as well as engagement
13 with Indigenous groups and RRAs, as needed. Corrective measures may involve implementing modified,
14 alternate, or additional mitigation or remedial measures, such as:

- 15 ▪ supplemental seeding or planting to address poor revegetation;
- 16 ▪ repairing or modifying an access management measure;
- 17 ▪ replacing or supplementing access controls with alternate measure(s); and
- 18 ▪ implementing access management measures at different locations.

1 9. Reporting Requirements

2 During the PCM Program, WCGT Ltd. will prepare reports following completion of PCM during the growing
3 season of each PCM year (i.e., first, third, and fifth growing season following final clean-up). Reporting will
4 include detail on the implementation of site-specific mitigation and habitat restoration measures,
5 information on the indicators measured and their performance in reaching the monitoring target, the
6 monitoring methods used, details of corrective actions taken (if any), as well as an updated engagement
7 record.

8 The environmental monitoring report filed after the fifth PCM year will include information on the
9 effectiveness of mitigation and corrective actions and will identify any goals that have not been achieved
10 and the need for any further corrective actions and monitoring. The need for additional reporting will be
11 determined through consultation with the BC EAO.

Appendix A
Wildlife Species with Special Conservation
Status that have Potential to Occur within the
Certified Pipeline Corridor

(to be completed)

Appendix B
Results of Site Assessment Surveys for
Wildlife Habitat Features of Schedule 1
Species at Risk Act Listed Species

(to be completed)

Appendix C
Marbled Murrelet Critical Habitat Assessment

(to be completed)