



**Westcoast Connector
Gas Transmission**

Westcoast Connector Gas Transmission Project

Grizzly Bear Mitigation and Monitoring Plan
Condition 13

Detailed Outline - 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, Saulteau 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 accompanying 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 Grizzly Bear Mitigation and Monitoring Plan (GBMMP or Plan) is to address the requirements of Certificate Condition 13 and provide commitments pertaining to Condition 14.

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 13.

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

The scope of the Plan includes:

- Linkages to other plans, purpose and objectives, roles and responsibilities, implementation schedule, and future updates (Section 2);
- Engagement methods that identify parties to be engaged and a plan for engaging Indigenous groups and RRAs, and a description of how engagement outcomes help shape the Plan (Section 3);
- Regulatory requirements related to construction and operations activities of the Project that may impact grizzly bear (Section 4);
- A description of the grizzly bear mitigation measures to be implemented during construction and operations activities of the Project (Section 5);
- A description of the monitoring program (Section 6), including monitoring timeframe, strategy, indicators, and targets;
- A description of the adaptive management program, including how the results of monitoring will inform adaptive management (Section 7);

- A plan for reporting on the implementation of the Plan including the schedule, content, and recipients of reports (Section 8);
- Professional Authentication of the Plan (Section 9); and
- References (Section 10).

Table of Concordance

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

Table 0-1. Concordance with Certificate Condition 13: Grizzly Bear Mitigation and Monitoring Plan and Condition 14: Grizzly Bear Agreement

Certificate Condition ^a	Section
<i>Condition 13 - Grizzly Bear Mitigation and Monitoring Plan</i>	
The Holder must develop in consultation with BC MFLNRORD and BC OGC and implement a Grizzly Bear Mitigation and Monitoring Plan (GBMMP).	Section 3
A Qualified Professional must develop and supervise the implementation of the GBMMP. The GBMMP must be consistent with BC's Policy for Mitigating Impacts on Environmental Values.	Section 2.3 Section 5 Section 9
The objectives of the GBMMP are to: <ul style="list-style-type: none"> ▪ Avoid sensory disturbance to grizzly bear as a result of the Project; and ▪ Avoid incremental mortality risk of grizzly bear as a result of the Project. 	Section 2
The GBMMP must describe the Holder's: <ol style="list-style-type: none"> a) Strategies for achieving the objectives described above during Construction and Operations, including, but not limited to, measures set out in Section 4.8 of the Application and the Holder's Access Management Plan and Human-Wildlife Conflict Plan; 	Section 5
<ol style="list-style-type: none"> b) Plan to monitor and assess: <ul style="list-style-type: none"> - The effectiveness of such strategies; and - Whether the objectives are being achieved; 	Section 6
<ol style="list-style-type: none"> c) Adaptive management plan to respond to monitoring and assessment by the Holder and the Grizzly Bear Program described in Condition 14; 	Section 7
<ol style="list-style-type: none"> d) Plan to report on the implementation of the GBMMP; and 	Section 8
<ol style="list-style-type: none"> e) Plan to consult affected Aboriginal^a Groups, Nisga'a Nation, BC OGC, and BC MFLNRORD throughout the development and implementation of the GBMMP. 	Section 3
In order to allow for 60 days review and comment, the Holder must provide the GBMMP to BC EAO no less than 90 days prior to the Holder's planned date to commence Construction. The Holder must not start Construction until the Plan has been approved by BC EAO, unless otherwise authorized by BC EAO. Once approved the Holder must provide the GBMMP to BC MFLNRORD and BC OGC.	Section 2.4

Table 0-1. Concordance with Certificate Condition 13: Grizzly Bear Mitigation and Monitoring Plan and Condition 14: Grizzly Bear Agreement

Certificate Condition ^a	Section
<i>Condition 14 - Grizzly Bear Agreement</i>	
<p>Prior to the commencement of Construction (or such later date authorized by BC EAO), the Holder must enter into an agreement with BC MFLNRORD (Grizzly Bear Agreement) that will set out the terms of the Holder's participation in a program of activities (Grizzly Bear Program) that supports the conservation and management of regional grizzly bear populations, inclusive of those populations potentially affected by the Project. The Holder must abide by the terms of the Grizzly Bear Agreement.</p> <p>The Grizzly Bear Program may include any of the following:</p> <ul style="list-style-type: none"> a) Regional and localized assessments of the size and structure of grizzly bear populations; b) Monitoring of grizzly bear movement and habitat use; and c) Administration of such activities. <p>The Grizzly Bear Agreement may require the Holder to contribute amounts of up to \$875,000 toward the cost of implementing the Grizzly Bear Program.</p>	<p>Section 6 Section 7</p>

^a "Aboriginal" was used at the time of the Certificate. The current preferred term is "Indigenous".

Notes:

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

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Acronyms and Abbreviations

AMP	Access Management Plan
BC	British Columbia
BC EAO	British Columbia Environmental Assessment Office
BC ENV	British Columbia Ministry of Environment and Climate Change Strategy
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
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CPC	Certified Pipeline Corridor
ECCC	Environment and Climate Change Canada
EI	Environmental Inspector
GBMMP or Plan	Grizzly Bear Mitigation and Monitoring Plan
GBPU	Grizzly Bear Population Unit
HWCMP	Human-Wildlife Conflict Management Plan
LNG	liquified natural gas
LRMP	Land and Resource Management Plans
km ²	square kilometre(s)
m	metre(s)
MMP	Moose Monitoring Plan
NWRP	Nisga'a Watercourse Restoration Plan
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 Milit on the north coast to supply natural gas to potential liquified natural gas terminal sites
QP	Qualified Professional
RP	Restoration Plan
RRA	Relevant Regulatory Authority
SARA	<i>Species at Risk Act</i>
SRMP	Sustainable Resource Management Plan
TCEMP	Terrestrial Construction Environmental Management Plan
UWR	Ungulate Winter Range

WCGT Ltd.	Westcoast Connector Gas Transmission Ltd.
WCGT Project	Westcoast Connector Gas Transmission Project
WHA	Wildlife Habitat Area
WMP	Wetlands Management Plan
WWHMP	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 Grizzly Bear Mitigation and Monitoring Plan (GBMMP or the Plan) is to address the requirements of Certificate Condition 13 and provide commitments pertaining to Condition 14.

WCGT Ltd. is engaging with Indigenous groups and 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 13 and 14.

WCGT Ltd. acknowledges the inherent connection Indigenous Peoples have with the grizzly bear and that while the Plan will satisfy the regulatory requirement, the Plan is intended to minimize impacts to grizzly bear 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 accompanying 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. WCGT Ltd. does not have plans to build the
5 second pipeline at this time; however, should it decide to construct a second pipeline, increase capacity by
6 adding compressor stations or extend the first pipeline to Ridley Island, WCGT Ltd. will submit revised or
7 new condition plans to the BC EAO in accordance with Condition 1 of its Certificate.

8



- 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 Grizzly Bear and Their Habitat

2 The Plan is intended to include all Project interactions with grizzly bear, including potential direct and
3 indirect impacts. The biophysical features along the Project have been extensively studied. WCGT Ltd. will
4 continue to commission the required biophysical studies along the proposed pipeline route and at
5 associated infrastructure sites. Information from these studies has been used to further refine and
6 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 grizzly bear. In general, the primary objective is to locate
9 the proposed pipeline contiguous existing linear disturbances wherever possible. Where this was not
10 possible, the hierarchy of routing criteria in descending order of preference included the following: parallel
11 other linear corridors; identify new routing (greenfield) to balance several engineering, construction,
12 environmental, cultural and socio-economic factors; and, in the case of new routing, minimize the length
13 away from existing linear corridors.

14 Grizzly bear are Blue-listed in BC (BC CDC 2021) and are listed as a species of Special Concern under
15 Schedule 1 of the *Species at Risk Act (SARA)* (Government of Canada 2021) and by the Committee on the
16 Status of Endangered Wildlife in Canada (COSEWIC) (COSEWIC 2021).

17 Grizzly bear populations in BC are monitored and managed by the BC Ministry of Environment and Climate
18 Change Strategy (BC ENV) using designated Grizzly Bear Population Unit (GBPUs). There are seven GBPUs
19 crossed by the Project: Hart, Moberly, Omineca, Babine, Cranberry, Stewart, and Khutzeymateen GBPUs
20 (BC MFLNRORD 2020b) (Figure 1-1).

21 Conservation Rankings assigned to each GBPU through a collaboration process between BC Ministry of
22 Forests, Lands, Natural Resource Operations and Rural Development (BC MFLNRORD) and BC ENV convey
23 the management risk to the population and are based on population size and isolation, population trend,
24 and level of threat to bears or bear habitat (BC MFLNRORD 2020b, BC ENV and BC MFLNRORD 2020). The
25 conservation ranking, estimated total population, population density, and Project construction spread
26 overlapping each GBPU are provided in Table 1-1.

Table 1-1. Summary of Grizzly Bear Population Units Intersected by the Project

GBPU	Conservation Rank (2019) ^a	Estimated Population (2018) ^b	Population Density (per 1,000 km ²) ^c	Project Construction Section
Moberly	M2 – High Concern	71	9	Section 1 - 2
Hart	M3 – Moderate Concern	244	12	Section 1
Omineca	M5 – Very Low Concern	402	14	Section 2 - 5
Babine	M3 – Moderate Concern	313	23	Section 5 – 6
Cranberry	M4 – Low Concern	352	31	Section 6 - 8
Khutzeymateen	M4 – Low Concern	277	38	Section 8 - 12
Stewart	M5 – Very Low Concern	358	40	Section 9 - 12

Notes:

Conservation Ranking: GBPUs are rated from very low to extreme conservation ranking. Rank value is assigned between M5 (Very Low) and M1 (Extreme), with M5 having no conservation concern and M1 being high conservation management concern. Rankings are determined using internationally recognized methods developed by NatureServe and the International Union for Conservation of Nature.

Sources:

^a BC ENV 2020.

^b BC MFLNRORD. 2018c.

^c BC MFLNRORD. 2020.

km² =square kilometre(s)

- 1 Wildlife Habitat Areas (WHAs) are provincially identified mapped areas that are necessary to meet the
- 2 habitat requirements of an identified wildlife element, in this case grizzly bear, and are managed to limit
- 3 the effects of activities on the identified wildlife. There are no approved WHAs for grizzly bear that
- 4 intersect the Project footprint (BC MFLNRORD 2021a). There are three proposed WHAs for grizzly bear in
- 5 the engagement phase that are crossed by the Project footprint, and include 6-055, 6-334, and 6-335
- 6 (BC MFLNRORD 2021b) (Figure 1).

2. Plan Overview

The Plan has been developed to meet the requirements of Certificate Condition 13 and provides commitments pertaining to Condition 14. The Plan will be developed in collaboration with Indigenous groups and RRAs.

The scope of the Plan includes:

- Linkages to other plans, purpose and objectives, roles and responsibilities, implementation schedule, and future updates (Section 2);
- Engagement methods that identify parties to be engaged, a plan for engaging Indigenous groups and RRAs, and a description of how engagement outcomes help shape the Plan (Section 3);
- Regulatory requirements related to construction and operations activities of the Project that may impact grizzly bear (Section 4);
- A description of the grizzly bear mitigation measures to be implemented during construction and operations activities of the Project (Section 5);
- A description of the monitoring program (Section 6), including monitoring timeframe, strategy, indicators, and targets;
- A description of the adaptive management program, including how the results of monitoring will inform adaptive management (Section 7);
- A plan for reporting on the implementation of the Plan including the schedule, content, and recipients of reports (Section 8);
- Professional Authentication of the Plan (Section 9); and
- References (Section 10).

2.1 Purpose and Objectives

The purpose of the Plan is to satisfy the applicable conditions outlined in Certificate Condition 13. The Plan also provides commitments pertaining to Condition 14. The objectives of the GBMMP are to:

- Avoid sensory disturbance to grizzly bear as a result of the Project; and
- Avoid incremental mortality risk of grizzly bear as a result of the Project.

To determine whether the Plan meets the objectives, the Plan identifies goals that can be measured using several performance indicators. The performance indicators and targets that will be monitored and measured to evaluate the effectiveness of grizzly bear mitigation measures in achieving the goals of the Plan will be described in Section 6.

Plans to address occurrences of inadequate mitigation or unanticipated Project effects are discussed (Section 7).

1 2.2 Linkages to Other Condition Plans

2 Information on other condition plans prepared for the Project have been considered in the Plan
3 (Table 2-1).

Table 2-1. Linkages to Other Condition plans

Plan	Description of the Plan	Linkages to this Plan
Condition 12 - Wetlands Management Plan (WMP)	<p>The WMP includes results of pre-construction surveys, recommends mitigation measures to be implemented during construction, and outlines the Post-Construction Monitoring (PCM) Program for wetlands.</p> <p>The WMP also includes consideration for the objectives of the Sensitive Area Plan for Mugaha Marsh as per Condition 26.</p>	The WMP contains general construction and restoration measures applicable to wetlands affected by the Project. Wetlands provide seasonal foraging habitat to grizzly bears.
Condition 15 - Human-Wildlife Conflict Plan (HWCMP)	The HWCMP recommends mitigation measures for avoiding wildlife mortalities during construction and operations	The HWCMP provides measures to avoid or minimize human-wildlife conflicts, which may contribute to grizzly bear mortality risk, during construction and operation of the Project.
Condition 16 - Caribou Mitigation and Management Plan (CMMP)	<p>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.</p>	The CMMP outlines measures to avoid or mitigate impacts to caribou and their habitat during construction and operation of the Project. The plan shares several mitigation measures with the GBMMP 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. It also includes reporting requirements.	The MMP outlines measures to avoid or mitigate impacts to moose and their habitat within the Nass Wildlife Area during construction and operation of the Project. The plan shares several mitigation measures with the GBMMP intended to avoid or minimize wildlife mortality risk.

Table 2-1. Linkages to Other Condition plans

Plan	Description of the Plan	Linkages to this Plan
<p>Condition 19 - Wildlife and Wildlife Habitat Management Plan (WWHMP)</p>	<p>The WWHMP consolidates all relevant wildlife mitigation into one document. It includes survey results for <i>SARA</i> Schedule 1 species, mitigation for habitat features, a monitoring program for moose populations during construction and operations (outside the Nass Wildlife Area), outlines reporting requirements, and provides plans for PCM.</p> <p>The WWHMP also includes mitigation to address additional Conditions:</p> <ul style="list-style-type: none"> ▪ Condition 20 – flying over Ungulate Winter Ranges (UWRs) and WHAs ▪ Condition 21 – mitigation and monitoring for Marbled Murrelet Critical Habitat 	<p>The WWHMP outlines measures to avoid or mitigate impacts to wildlife and wildlife habitat during construction and operation of the Project. The plan shares several mitigation measures with the GBMMP intended to reduce habitat loss and alteration, avoid human-wildlife conflict, and mitigate potential wildlife mortality risk caused by the Project.</p>
<p>Condition 22 - Access Management Plan (AMP)</p>	<p>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 PCM requirements.</p>	<p>The AMP provides measures to restrict or discourage unauthorized motorized access on the Project footprint, which can affect wildlife mortality risk.</p>
<p>Condition 25 - Restoration Plan (RP)</p>	<p>The RP provides recommendations for soil handling, construction clean-up, erosion control measures, revegetation plans, and life of Project vegetation management.</p>	<p>The RP outlines measures to limit habitat disturbance and reclaim disturbed habitats upon completion of construction. The plan shares several mitigation measures with the GBMMP intended to reduce habitat loss and alteration.</p>

Table 2-1. Linkages to Other Condition plans

Plan	Description of the Plan	Linkages to this Plan
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 restore 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 grizzly bear or occupied site-specific habitat is detected during Project activities.
Condition 43 – Nisga'a Watercourse Restoration Plan (NWRP)	The NWRP outlines 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 foraging habitat for grizzly bears.

1 2.3 Implementation Schedule

- 2 The Plan 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.

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

4 2.4 Future Updates to the Grizzly Bear Mitigation and Monitoring Plan

5 Revisions to the Plan could occur as a result of:

- 6 ▪ Engagement programs with Indigenous groups;
- 7 ▪ Additional information becoming available (e.g., updated provincial or federal species management or
8 recovery plans);
- 9 ▪ Changes to Project planning (e.g., engineering changes);
- 10 ▪ Commitments made during the regulatory review process; and
- 11 ▪ Regulatory permits and approval Conditions.

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

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

1 3. Engagement

2 The Plan is being developed through engagement with Indigenous groups (including Nisga'a Nation), the
3 BC MFLNRORD, and the BC Oil and Gas Commission (BC OGC). The Plan will be provided to the BC EAO no
4 less than 90 days prior to the planned commencement of construction to allow for review and comment.
5 Once approved by the BC EAO, the Plan will be provided to BC MFLNRORD and BC OGC.

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

9 WCGT Ltd. is engaging on the content and approach provided 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, at a
11 high level, the intent and expectation of the Certificate condition, as well as interests and concerns raised
12 by Indigenous groups and RRAs. The information that WCGT Ltd receives will inform the drafting of the full
13 content of the Plan. WCGT Ltd. will document and track all comments and recommendations received, and
14 provide a description on how this information has been considered and incorporated into the Plan.

1 4. Regulatory Framework

2 The legislation, regulatory guidelines, best management practices, and policy documents that were used
3 to develop mitigation measures in the Plan and the TCEMP are summarized in this section.

4 4.1 Indigenous Land Use Planning Documents

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

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

- 9 ▪ Kitselas Land Use Plan
- 10 ▪ Metlakatla Land Use Plan
- 11 ▪ A Land Use Plan for Nisga'a Lands

12 4.2 Regional and Municipal Land Management Plans

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

17 Resource management planning documents applicable to the Plan include:

- 18 ▪ Dawson Creek LRMP
- 19 ▪ Fort St. John LRMP
- 20 ▪ Fort St. James LRMP
- 21 ▪ Mackenzie LRMP
- 22 ▪ Prince George LRMP
- 23 ▪ Vanderhoof LRMP
- 24 ▪ Babine River Interim Local Resource Use Plan
- 25 ▪ Bulkley LRMP
- 26 ▪ Central Coast LRMP
- 27 ▪ Cranberry SRMP
- 28 ▪ Kalum LRMP
- 29 ▪ Kalum SRMP
- 30 ▪ Kispiox LRMP
- 31 ▪ Kispiox Higher Level Plan Objectives
- 32 ▪ Lakes District LRMP
- 33 ▪ North Lakes LRMP
- 34 ▪ Morice LRMP
- 35 ▪ Nass South LRMP
- 36 ▪ Nisga'a Memorial Lava Bed Park Master Plan

1 4.3 Provincial

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

- 3 ▪ BC *Wildlife Act*
- 4 ▪ BC *Oil and Gas Activities Act (OGAA)*
- 5 ▪ BC *Environmental Protection and Management Regulation*
- 6 ▪ BC *Forest and Range Practices Act (FRPA)*
- 7 ▪ Policy for Mitigating Impacts on Environmental Values (BC MOE 2014a) and the accompanying
- 8 Procedure for Mitigating Impacts on Environmental Values (BC MOE 2014b)

9 4.4 Federal

10 Federal legislation relevant to this document includes *the Species at Risk Act*.

5. Mitigation Program

Condition 13 of the Certificate requires WCGT Ltd. to design and implement mitigation strategies to achieve the objectives of the Plan (subsection 2.1), including but not limited to, access management and human-wildlife conflict mitigation as set out in the AMP and HWCMP. This section of the Plan will outline mitigation to be implemented to avoid sensory disturbance to grizzly bear and to avoid an increase in mortality risk to grizzly bear from human/wildlife conflict during construction, disruption of occupied dens during construction and increased human access.

Project planning and mitigation development will consider the mitigation hierarchy of avoid, minimize, and restore on-site as described in the Policy for Mitigating Impacts on Environmental Values (BC MOE 2014a) and Procedures for Mitigating Impacts on Environmental Values (BC MOE 2014b). The recommended mitigation measures will be developed in accordance with WCGT Ltd. standards as well as industry and regulatory guidelines (Section 4). The AMP (Condition 22 of the Certificate) will include additional mitigation specific to access management, which will reduce potential Project-related effects on grizzly bear mortality risk associated with increased human access.

5.1 Avoidance

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

Potential effects associated with sensory disturbance and displacement of grizzly bears can be avoided or minimized by scheduling Project activities outside of sensitive periods, when feasible. For the purpose of prioritizing areas for avoiding or minimizing sensory disturbance, important grizzly bear habitats relevant to the Project area and associated sensitive periods are defined as follows (adapted from BC MFLNRORD 2014):

- March to May: early spring foraging (coast and estuaries)
- April through mid-June: early spring foraging (interior eco-regions)
- June through August: high-elevation summer foraging habitat (interior eco-regions)
- Mid-August through October: fall foraging salmon spawning streams
- July through October: berry feeding
- October through end of winter conditions (March to May): winter denning

5.1.1 Project Construction Camp and Facility Risk Assessment

A primary concern with Project-related bear mortality risk stems from attraction of bears to Project construction camps or facilities, which has potential to create conflict situations that require intervention from a Conservation Officer. A bear conflict risk assessment will be completed for construction camp sites and other Project facilities that will have frequent or ongoing human presence and will need waste storage. Results of the risk assessment will inform site-specific mitigation, such as fence design (i.e., chain-link, electric or both), camp access (e.g., gates and closure timing), waste storage and disposal, and wildlife monitors. The risk assessment will consider the following risk factors:

- Bear habitat suitability (e.g., habitat model outputs);
- Proximity to potential bear feeding sites (e.g., salmon-bearing watercourses or other known high-use feeding sites identified through traditional environmental knowledge and traditional land use studies, engagement with Indigenous groups, consultation with RRAs);
- Provincial bear density estimates;

- 1 ▪ Remoteness of the site (e.g., distance to nearest town);
- 2 ▪ Levels of human use that might deter bears (using road density as a proxy); and
- 3 ▪ Number of beds (size) at workforce accommodation sites.

4 5.1.2 Spring, Summer, and Fall Feeding Habitat

5 There are no critical periods for important spring, summer, or fall foraging habitats for grizzly bear.
6 However, best management practices for northern BC (BC MFLNRORD 2014) include cautionary periods
7 that apply to specific feeding activities and areas (subsection 5.1). While locations of salmon-bearing
8 streams remain constant, other foraging habitats and their use by grizzly bears will vary seasonally and
9 from year to year. Due to the widespread availability of suitable foraging habitat for grizzly bear, timing
10 constraints for other environmental values, and the linear progression of pipeline construction, avoidance
11 of suitable foraging habitats during the spring, summer and fall feeding periods for grizzly bear cannot be
12 completely avoided. WCGT Ltd. will implement a mitigation procedure to reduce potential sensory
13 disturbance and displacement of grizzly bears from important foraging habitats during construction
14 (subsection 5.2).

15 5.1.3 Denning Habitat

16 The EPMG recommends a minimum 250 metres (m) setback from active grizzly bear dens, and the critical
17 denning period is from November 1 to April 15 (BC OGC 2021).

18 Potential effects associated with sensory disturbance to denning grizzly bears can be avoided by
19 scheduling Project activities outside of the winter denning period, where feasible. Constraints to
20 scheduling include a multitude of factors, such as access requirements and landowner or tenure holder
21 agreements, Contractor and equipment availability, progressive linear construction methods, streamflow
22 in nearby watercourse crossings, soil moisture conditions, and other sensitive timing windows associated
23 with wildlife and fish that influence construction timing. If Project scheduling cannot feasibly avoid the
24 critical winter denning period for grizzly bear and Project activities will occur where habitat suitability for
25 denning grizzly bears is moderate and high value, pre-construction den surveys will be completed to
26 identify active den sites and inform site-specific mitigation.

27 5.2 Minimize and Restore-On-site

28 Planning considerations during the Project design phase provided the opportunity to minimize Project
29 effects and plan habitat restoration following Project construction. Examples of planning considerations
30 that are reviewed in the early stages of a project include adjusting the configuration of temporary
31 workspace to minimize clearing of vegetation and using existing access or rights-of way to avoid creating
32 new corridors.

33 The restoration strategy will be consistent with that presented in the RP. The restoration measures will aim
34 to establish natural vegetation that will, over time, provide habitat for grizzly bear foraging, security and
35 movement, while avoiding the use of attractive agronomic reclamation species that could increase grizzly
36 bear mortality risk. Restoration measures will be implemented in areas affected by Project activities during
37 and post-construction.

1 5.3 Summary of Grizzly Bear Mitigation

2 This section will provide a summary of the relevant mitigation from the TCEMP and additional measures
3 specific to the objectives of the Plan. Selected measures from the TCEMP and AMP will be repeated to
4 demonstrate their relevance specific to grizzly bears.

5 The Construction Manager, in conjunction with an Environmental Inspector (EI), will ensure that the
6 protection measures are implemented. Decisions made regarding the implementation of site-specific
7 mitigation and habitat restoration measures and their final locations will be tracked by WCGT Ltd. through
8 planning as built process and carried through into PCM reports (Section 8).

1 6. Monitoring Program

2 To meet Condition 13 of the Certificate, WCGT Ltd. will implement a monitoring program to test the
3 effectiveness of mitigation implemented on the Project footprint. Other monitoring plans pertaining to
4 grizzly bears and their habitat that will be implemented during the post-construction phase of the Project
5 are the CMMP, TCEMP, AMP, MMP, PCM Program, RP, WWHMP, and WMP.

6 Reporting on mitigation effectiveness and compliance will be described in the TCEMP. Should monitoring
7 programs indicate that the measures implemented were not adequate or were ineffective at avoiding or
8 reducing potential residual effects on grizzly bear and grizzly bear habitat, follow-up measures will be
9 implemented as described in Section 7. To satisfy Condition 14 of the Certificate, WCGT Ltd. will establish
10 an agreement with BC MFLNRORD to support the development of a Grizzly Bear Program to be
11 administered by BC MFLNRORD. The intent of the funding is to support monitoring and study of grizzly
12 bear populations that interact with the Project.

13 6.1 Mitigation Compliance Monitoring

14 WCGT Ltd. in conjunction with the EI will ensure that all environmental commitments and conditions of
15 authorizations are met, and that work is completed in compliance with applicable environmental
16 regulations and WCGT Ltd. policies. Compliance monitoring and reporting will occur daily throughout the
17 construction phase.

18 WCGT Ltd. will continue to engage with Indigenous groups, RRAs, tenure holders, and other stakeholders
19 over the construction and operations phases of the Project. If there are repeated sightings or interactions
20 with grizzly bear, WCGT Ltd. will consult with a QP and the RRA (i.e., BC MFLNRORD), to discuss the need
21 for additional measures to monitor the situation, depending on the site-specific circumstances.

22 6.2 Mitigation Effectiveness Monitoring

23 To satisfy Condition 13 of the Certificate, WCGT Ltd. will design and implement a mitigation effectiveness
24 monitoring program for grizzly bear sensory disturbance and mortality risk. Mitigation monitoring involves
25 measuring the mitigation actions against targets to determine effectiveness. The monitoring strategy,
26 performance indicators and targets will be provided.

27 6.3 Monitoring Timeframe

28 The PCM Program begins following the first full growing season after final clean-up of the entire Project
29 footprint and the implementation of restoration measures. Monitoring will occur in the first, third, and fifth
30 years of the PCM Program.

31 6.4 Monitoring Strategy

32 6.4.1 Compliance Monitoring

33 Compliance monitoring is used as an indicator that mitigation measures are properly implemented. Roles,
34 responsibilities, and frequency of compliance monitoring will be described.

1 6.4.2 Sensory Disturbance Monitoring

2 Sensory disturbance monitoring involves measuring the mitigation actions implemented to avoid sensory
3 disturbance and displacement of denning grizzly bears. This potential effect will be mitigated through
4 adherence to setback and timing restrictions related to occupied grizzly bear dens, to the extent feasible. If
5 setback and timing restrictions cannot be adhered to fully, WCGT Ltd. will consult with a QP and RRA to
6 identify new or modified mitigation measures. Where implemented, new or modified mitigation measures
7 will be subjected to effectiveness monitoring where recommended by the QP or RRAs. Effectiveness of
8 sensory disturbance mitigation at hibernation dens, if encountered, will be monitored using an
9 implementation monitoring approach.

10 6.4.3 Bear-Human Conflict Monitoring

11 Bear-human conflict monitoring involves measuring the mitigation actions implemented to avoid an
12 increase in mortality risk to grizzly bear from human-wildlife conflict during construction. This potential
13 effect will be mitigated in part by scheduling to avoid sensitive timing windows or implementing protective
14 buffers around occupied dens, implementing mitigation to avoid bear-human conflict situations, and
15 enabling efficient and effective response to potential conflict situations.

16 Mitigation to avoid human/wildlife conflict will be outlined in the Plan, as well as in the HWCMP, WWHMP,
17 and in the TCEMP. Mitigation success will be monitored by tracking and reviewing any new or outstanding
18 environmental issues documented during the construction phase of the Project.

19 6.4.4 Access Control Monitoring

20 Access control monitoring involves measuring the mitigation actions implemented to avoid an increase in
21 grizzly bear mortality risk from increased motorized human access due to new and upgraded roads. This
22 potential effect will be reduced by implementing access management measures as described in the AMP.

23 6.4.4.1 Performance Indicators and Targets

24 Monitoring will measure performance indicators to determine if targets are met. The targets will act as
25 triggers for implementation of corrective measures if the mitigation measures are found to be
26 underperforming.

1 7. Adaptive Management

2 This section will outline how mitigation measures will be re-evaluated should monitoring programs
3 indicate that the measures implemented were not effective or need to be supplemented. Examples of the
4 types of corrective measures that may be implemented are provided as follows.

5 7.1 Adaptive Management Approach

6 The results of monitoring will inform the need for corrective measures.

7 Certificate Condition 14 requires WCGT Ltd. to enter into an agreement with BC MFLNRORD whereby
8 WCGT Ltd. will contribute up to \$875,000 to support a Grizzly Bear Program that includes any of the
9 following:

- 10 ▪ Regional and localized assessments of the size and structure of grizzly bear populations;
- 11 ▪ Monitoring of grizzly bear movement and habitat use; and
- 12 ▪ Administration of such activities.

13 WCGT Ltd. will maintain an open dialogue with BC MFLNRORD regarding the implementation of the
14 Grizzly Bear Program and results of the Program, including the need for adaptive management to address
15 potential issues identified through the Program.

16 7.2 Potential Corrective Measures

17 Corrective measures will be implemented as soon as practical. Corrective measures may involve implementing
18 modified, alternate, or additional mitigation or remedial measures that may include, but are not limited to:

- 19 ▪ supplementing or changing bear deterrents or exclusions around Project facilities;
- 20 ▪ changing waste storage or disposal procedures;
- 21 ▪ increasing bear monitoring; and
- 22 ▪ repairing, modifying, replacing or supplementing access management measures.

23

1 8. 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 measures, information on the indicators
5 measured and their performance in reaching the monitoring target, the monitoring methods used, details
6 of corrective actions taken (if any), as well as an updated engagement record.

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

9. Professional Authentication

The Plan will be developed and signed by QPs directly responsible for providing professional services and submitting accurate work as directed by WCGT Ltd. in support of the submission as required by the BC EAO.