



**Westcoast Connector
Gas Transmission**

Westcoast Connector Gas Transmission Project

Restoration Plan
Condition 25

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 Restoration Plan (the RP or Plan) is to address the requirements of Certificate Condition 25.

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 25. 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 support restoration efforts by incorporating Indigenous Knowledge and ensuring concerns are addressed during mitigation development.

The Plan outlines the restoration measures being considered for implementation within the terrestrial (non-marine) environment for the Project. The Plan adopts an ecosystem-based approach to guide the implementation of restoration measures and builds on species- or resource-specific condition plans and the Terrestrial Construction Environmental Management Plan (TCEMP).

The desired outcome of the Plan is to re-establish natural ecosystems that are compositionally and functionally similar to the early seral condition of the pre-construction ecosystems, and compatible with the surrounding ecosystems and land use. In accordance with the requirements of Certificate Condition 25, the objectives of the Plan include:

- Maintaining soil productivity through topsoil material salvage, subsoil conditioning, and installation and maintenance of temporary and permanent erosion and sediment control measures;
- Re-establishing grade and drainage features
- Installing access control structures;
- Establishing vegetative cover compatible with surrounding vegetation and land uses (including natural recovery); and
- Setting out the process for vegetation management during the life of the Project, with a view towards integrating fish and wildlife habitat considerations into operational activities.

Restoration measures will be implemented during construction and monitored during the 5-year Post-Construction Monitoring (PCM) Program for the Project. Performance indicators and targets will be developed considering information received through engagement and will be used to measure the effectiveness of restoration. The monitoring strategy, performance indicators, and targets will be outlined in the Plan and will be designed to:

- practically collect information during construction and within the 5-year PCM period;
- determine whether restoration measures achieve the objectives of the Plan; and
- act as triggers for implementation of corrective measures if the mitigation measures are found to be underperforming during PCM.

Table of Concordance

Table 0-1 describes how this Plan addresses Certificate Condition 25.

Table 0-1. Concordance with Certificate Condition 25: Restoration Plan

Certificate Condition	Section
<i>Condition 25 – Restoration Plan</i>	
The Holder must develop, in consultation with OGC, and implement a Restoration Plan in a manner consistent with Appendix 3-A, Section 6.6 of the Application and to meet the following objectives:	Subsection 5.3
<ul style="list-style-type: none"> ▪ Topsoil material salvage, subsoil conditioning, installation of permanent erosion and sediment control measures, and grade and drainage feature re-establishment 	Subsection 5.3
<ul style="list-style-type: none"> ▪ Installation and maintenance of temporary erosion and sediment control measures, and access control structures; 	Subsection 5.3
<ul style="list-style-type: none"> ▪ Establishment of vegetative cover compatible with surrounding vegetation and land uses (including natural recovery); and 	Subsection 5.3
<ul style="list-style-type: none"> ▪ Vegetation management during the life of the Project, with a view of integrating fish and wildlife habitat considerations with Operations requirements 	Section 6
In order to allow for 60 days review and comment, the Holder must provide the plan to EAO no less 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 OGC prior to the Holder's planned date to commence Construction	Section 3

Notes:

BC OGC = British Columbia Oil and Gas Commission

BC EAO = British Columbia Environmental Assessment Office

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Acronyms and Abbreviations

AMP	Access Management Plan
BC	British Columbia
BC EAO	British Columbia Environmental Assessment Office
BC OGC	British Columbia Oil and Gas Commission
Certificate	Environmental Assessment Certificate
CMMP	Caribou Mitigation and Monitoring Plan
CPC	Certified Pipeline Corridor
EI	Environmental Inspector
GBMMP	Grizzly Bear Mitigation and Monitoring Plan
LNG	liquified natural gas
MMP	Moose Monitoring Plan
NWRP	Nisga'a Watercourse Restoration Plan
OGMA	Old Growth Management Area
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 or Plan	Restoration Plan
RRA	Relevant Regulatory Authority
RU	Restoration Unit
TCEMP	Terrestrial Construction Environmental Management Plan
TLU	Traditional Land Use
TSS	Timber Salvage Strategy
UWR	Ungulate Winter Range
VQMP	Visual Quality Management Plan
VQO	Visual Quality Objective
WHA	Wildlife Habitat Area
WCGT Ltd.	Westcoast Connector Gas Transmission Ltd.
WCGT Project	Westcoast Connector Gas Transmission Project
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 EAC granted for the WCGT Project is subject to 43 Conditions. The purpose of the Restoration Plan (RP or the Plan) is to address the requirements of Certificate Condition 25.

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 25.

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 the Plan 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.

If WCGT Ltd. proceeds with construction of a second pipeline, it would also start near Willow Flats and would not use the corridor 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 Environmental Values and Land Use Context

2 The Plan will use an ecosystem-based approach to guide the implementation of restoration measures.

3 This section will provide environmental and land management context, which will form the basis of
4 delineation of Restoration Units (RUs). Environmental and land management context to be included are as
5 follows:

- 6 ▪ land management regions (Natural Resource Regions, Regional Districts)
- 7 ▪ communities crossed or nearby the route
- 8 ▪ major infrastructure (e.g., highways)
- 9 ▪ primary land/resource uses
- 10 ▪ environmental setting (e.g., biogeoclimatic zones and subzones, rivers and lakes, parks and protected
11 areas, designated sensitive habitats)

2. Restoration Plan Overview

The Certificate is subject to 43 Conditions. This Plan is being developed to meet the requirements of Certificate Condition 25. Further iterations will be developed in collaboration with the Indigenous groups, RRAs, and stakeholders. The scope of the Plan is specific to the terrestrial environment (i.e., excluding marine and shoreline environments), and includes:

- A description of the Project and the environmental values and land use context that influence the restoration program (Section 1);
- Linkages to other plans, purpose and objectives, implementation schedule, and future updates (Section 2);
- Engagement methods for engaging the Indigenous groups, RRAs, and stakeholders, and a description of how engagement outcomes help shape the Plan (Section 3);
- Regulatory framework related to restoration activities (Section 4);
- A description of the restoration measures to be implemented for the Project (Section 5);
- A description of the vegetation management program that will be adopted during operations of the Project (Section 6);
- A description of the monitoring program (Section 7);
- A description of the adaptive management program, 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); and
- References (Section 10).

Mitigation and monitoring related to marine and shore environmental values is addressed through compliance with Certificate Conditions 5 to 9.

2.1 Purpose and Objectives

The purpose of this Plan is to satisfy Certificate Condition 25. The overall desired outcome of the Plan is to re-establish natural ecosystems that are compositionally and functionally similar to the early seral condition of the pre-construction ecosystems, and compatible with the surrounding ecosystems and land use, where practical. In accordance with the requirements of Certificate Condition 25, the objectives of the Plan include:

- Maintaining soil productivity through topsoil material salvage, subsoil conditioning, and installation and maintenance of temporary and permanent erosion and sediment control measures
- Re-establishing grade and drainage features
- Installing access control structures
- Establishing vegetative cover compatible with surrounding vegetation and land uses (including natural recovery)
- Setting out the process for vegetation management during the life of the Project, with a view towards integrating fish and wildlife habitat considerations into operational activities

1 2.2 Linkages to Other Condition Plans

2 Information on other Condition management plans prepared for the Project have been considered in the
3 Plan (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 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>	<p>The WMP outlines wetland-specific restoration measures that are incorporated into the Plan.</p>
Condition 13 - Grizzly Bear Mitigation and Monitoring Plan (GBMMP)	<p>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 strategies, and reporting requirements.</p>	<p>The GBMMP outlines access management measures, which is one of the objectives of the Plan. The Plan is designed in consideration of grizzly bear habitat, including seed mix and planting prescriptions that avoid the use of legumes that could increase grizzly bear mortality risk by attracting bears to the right-of-way.</p>
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>	<p>The CMMP outlines measure to restore caribou habitat that will be incorporated into the Plan.</p>
Condition 18 - Moose Monitoring Plan (MMP)	<p>The MMP recommends mitigation measures to reduce moose mortality risk during construction and operations in the Nass Wildlife Area. It also includes reporting requirements.</p>	<p>The MMP outlines access management measures, which is one of the objectives of the Plan. The Plan is designed in consideration of moose habitat, including allowing for re-establishment of suitable browse and cover habitat where appropriate to the ecosystem and considering other conservation/management objectives.</p>

Table 2-1. Linkages to Other Condition Plans

Plan	Description of the Plan	Linkages to this Plan
Condition 19 - Wildlife and Wildlife Habitat Management Plan (WWHMP)	<p>The WWHMP consolidates all relevant wildlife mitigation into one document. It includes survey results for <i>Species at Risk Act</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 consideration of additional Conditions:</p> <ul style="list-style-type: none"> ▪ Condition 20 – flying over Ungulate Winter Ranges (UWRs) and Wildlife Habitat Areas (WHAs) ▪ Condition 21 – mitigation and monitoring for Marbled Murrelet Critical Habitat 	The WWHMP includes habitat restoration measures.
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 PCM requirements.	The AMP outlines access management measures, which is one of the objectives of the Plan.
Condition 28 - Visual Quality Management Plan (VQMP)	The VQMP provides a description of where the Project intersects areas with Visual Quality Objectives (VQOs) and recommendations to minimize effects on these areas.	VQOs are taken into consideration within revegetation strategies outlined in the Plan.
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 includes measures with the Plan pertaining to Old Growth Management Areas (OGMAs) and retention of materials for restoration.

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 Enbridge'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 ▪ Condition 34 – hunting, trapping, and fishing policy 	The TCEMP outlines environmental protection measures that will be implemented during construction that will facilitate effective restoration.
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 shares instream and riparian habitat restoration measures with the Plan.

1 2.3 Implementation Schedule

2 This Plan will be submitted to the BC EAO at least 90 days before the commencement of construction. The
3 Plan will be implemented throughout the initial phases of construction (e.g., clearing and site
4 preparation), through mainline construction, clean-up, and post-construction restoration.

5 2.3.1 Pre-Construction

6 Pre-construction mitigation measures that affect restoration will be implemented prior to commencement
7 of pipeline construction activities. Mitigation details are provided in the TCEMP. Pre-construction
8 measures related to restoration include, but are not limited to:

- 9 ▪ Delineations of workspace, access roads and trails, landscape features (e.g., wetlands, watercourse
10 crossings, areas with stripping limitations), and environmental features (e.g., archaeological sites,
11 Traditional Land Use [TLU] sites, rare plants or ecological communities and wildlife habitat features)

- 1 ▪ Pre-construction vegetation management to prevent the spread of noxious and listed weeds along the
- 2 Project footprint
- 3 ▪ Identify and record landscape and instream features and salvage for replacement following
- 4 construction
- 5 ▪ Collecting and storing native plant materials (e.g., seed) for revegetation efforts
- 6 ▪ Seed procurement (cover crops and native seed)

7 2.3.2 Construction

8 Construction activities will include appropriate techniques that avoid and minimize environmental effects
9 and allow for successful restoration. Site-specific conditions may require temporary measures prior to final
10 restoration (e.g., temporary erosion and sediment control measures, weed management). Construction
11 and restoration activities will occur in parallel at multiple locations along the Project footprint.

12 Mitigation measures that will be implemented to protect environmentally sensitive features during
13 construction are presented in the TCEMP and associated terrestrial condition plans. Construction
14 mitigation measures related to restoration include, but are not limited to:

- 15 ▪ Topsoil/stripping material salvage, storage, and replacement, as well as alternative soil handling
- 16 measures for problem soils
- 17 ▪ Minimizing grading and avoiding grubbing where grading is not required
- 18 ▪ Reducing area of disturbance at wetland and watercourse crossings
- 19 ▪ Retaining and storing timber and woody debris for use as rollback (i.e., for access control, erosion
- 20 control, soil stabilization, or creation of microsites to enhance vegetation establishment or wildlife
- 21 habitat features)
- 22 ▪ Salvaging and storing plant materials, seed procurement, and tree/shrub rooted stock procurement
- 23 for revegetation efforts
- 24 ▪ Invasive plant management and control measures
- 25 ▪ Temporary erosion and sediment control measures
- 26 ▪ Slope and bank stabilization
- 27 ▪ Recontouring or re-establishing the site microtopography and pre-construction surface drainage
- 28 patterns

29 2.3.3 Post-Construction and Restoration

30 Final clean-up and restoration activities will generally commence immediately following construction,
31 weather and ground conditions permitting. Final restoration will be conducted following final clean-up
32 and where practical, will occur during dry, non-frozen conditions between late spring and fall. Post-
33 construction mitigation measures are measures conducted once Project construction activities are
34 complete. Post-construction restoration measures include, but are not limited to:

- 35 ▪ Site preparation of the right-of-way (including seed bed preparation, mounding, etc.)
- 36 ▪ Permanent soil stabilization, erosion and sediment control measures
- 37 ▪ Seeding, planting, and staking activities
- 38 ▪ Invasive plant management and control measures
- 39 ▪ Reinstallation of pre-existing structures and fencing
- 40 ▪ Access control and access decommissioning measures

1 2.3.4 Monitoring

2 WCGT Ltd. will monitor restoration effectiveness during the first, third, and fifth years following the first
3 full growing season after completion of final clean-up. Routine operational monitoring will occur over the
4 life of the Project (Section 6). If outstanding or new environmental issues are identified during the PCM
5 Program, corrective measures will be identified (Section 7).

6 2.4 Future Updates to the Restoration Plan

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

- 8 ▪ Engagement programs with Indigenous groups
- 9 ▪ Additional information becoming available
- 10 ▪ Changes to Project planning (e.g., engineering changes)
- 11 ▪ Commitments made during the regulatory review process
- 12 ▪ Regulatory permits and authorization Conditions
- 13 ▪ Addressing unforeseen resource-specific conditions that may arise during construction

14 WCGT Ltd. will not inform Indigenous groups and RRAs when minor revisions are made to the Plan (i.e.,
15 small changes that would not affect the scope and objectives of the Plan). Indigenous groups and RRAs
16 will be provided an opportunity to review and provide comment on material revisions to the Plan (i.e.,
17 changes to the scope or mitigation and monitoring requirements). A Document History table listing
18 version, date, and distribution will be provide in this document.

1 3. Engagement

2 The Plan is being developed through engagement with Indigenous groups and the BC Oil and Gas
3 Commission (BC OGC). The Plan will be provided to the BC EAO for review and comment at least 90 days
4 prior to construction. A copy of the final Plan will be provided to the BC OGC.

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

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

1 4. Regulatory Framework

2 The Plan will be developed in the context of federal and provincial regulations and policies pertaining to
3 restoration activities to complement land use planning objectives. A brief description of the regulations,
4 policies, and land use plans used to develop the Plan will be provided, pertaining to the following items:

- 5 ▪ Indigenous land management plans
- 6 ▪ Regional and municipal land management plans
- 7 ▪ Invasive plant management
- 8 ▪ Reforestation and forest health
- 9 ▪ OGMA's
- 10 ▪ Parks and protected areas
- 11 ▪ Watercourses, riparian areas, and wetlands
- 12 ▪ Rare plants or ecological communities
- 13 ▪ Identified Wildlife Areas (e.g., WHAs, UWRs, caribou ranges and recovery zones)

1 5. Restoration Program

2 5.1 Restoration Units

3 Restoration of the Project footprint will be conducted within RUs, which are discrete segments of the
4 Project footprint with similar current land use practices and ecosystem characteristics (e.g., elevation
5 range, soil conditions and natural vegetation types). The RUs will be delineated considering landscape
6 features and biogeoclimatic zones and subzones. Specific seed mixes, plantings, weed control measures,
7 and other terrestrial and aquatic habitat restoration measures will be developed for each RU. The location
8 of RUs and general information on ecosystems and land uses in each RU will be summarized in maps and
9 tables.

10 5.2 Mitigation Hierarchy

11 Project planning and mitigation development considered the mitigation hierarchy of avoid, minimize, and
12 restore-on-site as described in the Policy and Procedures for Mitigating Impacts on Environmental Values
13 (BC MOE 2014a,b). Following this hierarchy, WCGT Ltd. is considering feasible measures to avoid Project
14 effects on valued components during the Project design phase. Appropriate measures to minimize and
15 mitigate Project effects will be implemented during construction, followed by onsite restoration measures
16 upon completion of construction.

17 5.3 General Restoration Measures

18 Restoration measures that will be implemented on the disturbed Project footprint will be described in the
19 following subsections. The implementation and success of these measures are influenced by ecosystem
20 conditions (e.g., vegetation types, soil characteristics, elevation, exposure to wind and sun) as well as
21 Project considerations (e.g., temporary vs. permanent disturbance, operational requirements) and other
22 land use objectives (e.g., crossings of third-party infrastructure, requirements of range or forestry tenure
23 holders).

24 5.3.1 Permits, Authorizations, and Approvals

25 Restoration activities will adhere to the applicable acts and regulations, and comply with conditions of
26 permits, approvals and authorizations. Potential environmental permits, approvals, and authorizations
27 required prior to the commencement of construction activities will be listed in the TCEMP. Permits,
28 approvals and authorizations received for the Project will be kept onsite during all Project activities.

29 5.3.2 Vegetation Clearing and Vegetation Management

30 This subsection will provide measures for disposal, transport, retention and replacement of woody
31 material cleared for Project construction.

32 5.3.3 Topsoil or Strippings Material Salvage, Grading and Recontouring

33 This subsection will explain the procedures and measures to be implemented to retain soil productivity
34 and seed bank viability.

1 5.3.4 Access Roads

2 This subsection will be developed in conjunction with the AMP (Condition 22) and will include a
3 description of temporary access deactivation and restoration measures.

4 5.3.5 Stabilization, Erosion and Sediment Control Measures

5 This subsection will discuss the various stabilization, erosion and sediment control techniques that are
6 available for use during and following construction, when their use is appropriate, materials needed and
7 other considerations for implementation.

8 5.3.6 Revegetation

9 This subsection will provide a description and context for re-establishing vegetation within the Project
10 footprint.

11 5.3.6.1 Natural Regeneration

12 The measures to be implemented to facilitate natural regeneration will be discussed, in addition to
13 situations where natural regeneration may or may not be the preferred approach.

14 5.3.6.2 Seed Mixes, Cover Crops, and Application

15 Seed mixes will be designed for each RU along the Project. Seed mix prescriptions will be provided.

16 5.3.6.3 Planting

17 The procedures for procuring and planting native woody vegetation will be described, including where
18 plantings will be installed and considerations for species and planting densities suited to the RUs or other
19 site-specific conditions

20 5.3.7 Invasive Species Management

21 This subsection will reflect content from the Invasive Plant Species Management Plan.

22 5.4 Special Area Restoration

23 Restoration measures for special areas will be described in the following subsections.

24 5.4.1 Old Growth Management Areas

25 This subsection will describe the measures to re-establish vegetation where incursions into OGMA's cannot
26 be avoided and will align with reports prepared in accordance with Certificate Condition 29.

27 5.4.2 Reforestation and Forest Health

28 This subsection will provide measures for reforestation and maintaining forest health, considering forest
29 management objectives, typical requirements of forest stakeholders and specific requirements identified
30 through engagement with Indigenous groups and stakeholders.

1 5.4.3 Parks and Protected Areas

2 This subsection will outline the restoration measures to be implemented within parks and protected areas
3 and will be developed through engagement with Indigenous groups (include Nisga'a Nation) and RRAs.

4 5.4.4 Traditional Land Use Sites

5 This subsection will include a description of restoration measures to be implemented at TLU sites. WCGT
6 Ltd. is working with potentially affected Indigenous groups to collect TLU information that will be used to
7 inform the Plan, including locations of TLU sites, plant species of importance, and mitigation and
8 restoration measures recommended by Indigenous groups.

9 5.4.5 Watercourse Crossings and Riparian Areas

10 This subsection will be developed in conjunction with the Watercourse Crossing Plans and the NWRP
11 (Condition 43) and will include a description of restoration measures for watercourse instream and
12 riparian areas.

13 5.4.6 Rare Plants and Rare Plant Communities

14 This subsection will be developed in conjunction with the Rare Plant and Ecological Communities
15 Management Plan and will include a description of associated restoration measures for rare plants and
16 ecological communities.

17 5.4.7 Wetlands

18 This subsection will be developed in conjunction with the WMP and the TCEMP and will include a
19 description of wetland restoration measures.

20 5.4.8 Wildlife Features and Wildlife Habitat

21 This subsection will be developed in conjunction with the GBMMP, CMMP, MMP, WWHMP, and the TCEMP.

1 6. Vegetation Management During Operations

2 Restoration of the pipeline right-of-way will be subject to the constraints of typical right-of-way
3 maintenance, with different revegetation objectives between the area over the operating pipeline (where
4 ongoing vegetation maintenance is required for monitoring, safety and access) and the remainder of the
5 Project footprint.

6 The area of vegetation maintenance during operations will be maintained with low-growing herbaceous
7 and shrubby vegetation but will be subject to periodic mowing or brushing over the operational life of the
8 Project. Taller shrubs and trees will be allowed to re-establish on the Project footprint outside of the
9 operational access.

1 7. Monitoring Program

2 Restoration measures will be monitored during construction and the PCM Program. Other monitoring
3 plans pertaining to restoration that will be implemented during the post-construction phase of the Project
4 are included in the WMP, GBMMP, Human-Wildlife Conflict Management Plan, CMMP, MMP, WWHMP,
5 AMP, and VQMP. Should monitoring programs indicate that the measures implemented were not
6 adequate or were ineffective at avoiding or reducing potential environmental residual effects, follow-up
7 measures will be implemented as described in Section 8.

8 7.1 Mitigation Compliance Monitoring

9 WCGT Ltd. in conjunction with the Environmental Inspector (EI) will confirm that all environmental
10 commitments and conditions of authorizations are met, and that work is completed in compliance with
11 applicable environmental regulations and WCGT Ltd. policies. Compliance monitoring and reporting will
12 occur daily throughout the construction phase. The EI will assist with oversight activities to ensure
13 compliance with Project commitments and regulatory requirements, and report on issues of non-
14 compliance and stop work if necessary. The EI will work with WCGT Ltd.'s environment support team for
15 the Project to notify RRAs of non-compliance, implement mitigation, and keep records of incidents, if any.
16 The EI will be supported, when needed, by Qualified Professionals (QPs) with relevant expertise.

17 WCGT Ltd. will track and review:

- 18 ▪ the environmental mitigation compliance monitoring reports maintained daily during the construction
19 phase of the Project
- 20 ▪ compliance with environmental awareness training
- 21 ▪ documentation of engagement and communication records
- 22 ▪ documentation of corrective measures implemented, rationale, and timeframes for implementation

23 WCGT Ltd. will continue to engage with Indigenous groups, RRAs, and other stakeholders over the
24 construction and operations phases of the Project.

25 7.2 Restoration Effectiveness Monitoring

26 Restoration effectiveness monitoring involves assessing the restored areas compared to adjacent areas off
27 the Project footprint, when appropriate. Restoration monitoring will be conducted as part of the PCM
28 Program. The disturbed and restored areas of the Project footprint will be visually assessed using a
29 combination of aerial and ground-based surveys to determine whether the objectives of the Plan are
30 achieved.

31 Ground-based and/or aerial monitoring will be completed at years one, three, and five over the PCM
32 period. Qualified field personnel will conduct comparative evaluations of the restored areas relative to
33 adjacent areas outside the Project footprint. Data from pre-construction surveys will be used to inform the
34 PCM Program, where applicable. In addition, remote cameras will be installed at select locations where
35 access management measures are implemented, as described in the AMP. WCGT Ltd. is also investigating
36 potential opportunities to use aerial remote sensing data to inform the PCM Program.

1 7.3 Monitoring Strategy

2 Performance indicators and targets will be developed considering information received through
3 engagement and will be used to measure the effectiveness of restoration. For each Plan objective (defined
4 in subsection 2.1), performance indicators will be measured against the targets in each PCM year (i.e., the
5 first, third, and fifth growing seasons following completion of final clean-up and restoration).

6 The monitoring strategies, performance indicators and targets will be designed to:

- 7 ▪ practically collect information during construction and within the 5-year PCM period
- 8 ▪ determine whether restoration measures achieve the objectives set out in subsection 2.1
- 9 ▪ act as triggers for implementation of corrective measures if the mitigation measures are found to be
10 underperforming during PCM (Section 8)

11 7.4 Monitoring Timeframe

12 The PCM Program begins following the first full growing season after final clean-up of the entire Project
13 footprint and the implementation of restoration measures. Monitoring will occur in the first, third, and fifth
14 years of the PCM Program. Following the PCM period, WCGT Ltd. will monitor the Project as part of its
15 operations monitoring program, which includes regular aerial patrols of the right-of way and regular
16 review of communications from other land users. Additional periodic monitoring during operations may be
17 warranted for concerns such as access management or natural hazards. Indicators of restoration success
18 (e.g., poor vegetation health or cover, erosion, subsidence) will be documented during operations
19 monitoring and considered for corrective actions (Section 8).

20 WCGT Ltd. will work with Indigenous groups, RRAs, and other stakeholders to resolve any emerging or
21 outstanding environmental issues.

1 8. Adaptive Management

2 This section outlines how restoration measures will be re-evaluated should monitoring programs indicate
3 that the measures implemented were not effective or need to be supplemented. Examples of the types of
4 corrective measures that may be implemented are provided in subsection 8.2.

5 8.1 Adaptive Management Approach

6 The results of monitoring as described in Section 7 of the Plan will inform the need for corrective
7 measures. Depending on the performance indicator, evaluation against the measurable target may be
8 conducted during construction, or at each PCM year (i.e., years one, three, and five after restoration is
9 completed). If, at any point during the 5-year PCM Program, performance indicators are found to be
10 underperforming and are unlikely to meet the targets within the 5-year timeframe, corrective measures
11 will be implemented as soon as feasible.

12 Following completion of the PCM Program, during Project operations, if restoration measures have been
13 unsuccessful at select locations, additional remedial/corrective measures will be employed, and the
14 deficient site(s) will be subject to continued monitoring. In addition, long-term monitoring of the pipeline
15 rights-of-way by aerial flyovers is planned to account for the remote possibility of issues arising in the
16 long-term following completion of the PCM Program. WCGT Ltd. will continue to engage with Indigenous
17 groups during operations and remain available to respond to Indigenous groups, RRAs, and potentially
18 affected stakeholders if any issues or concerns arise about the Project following construction activities.

19 8.2 Potential Corrective Measures

20 Corrective measures will be implemented as soon as practical.

21 Should it be determined during construction or PCM that corrective measures are needed to promote
22 successful restoration of the Project footprint, recommended measures will be identified on a case-by-
23 case basis and will depend on the site-specific conditions.

24 WCGT Ltd. will be responsible for determining corrective measures as warranted. Examples of corrective
25 measures that may be applied in the event that the performance indicators are found to be
26 underperforming and unlikely to meet the targets within the 5-year PCM timeframe will be presented in a
27 table.

28 Corrective measures may involve implementing modified, alternate, or additional restoration or remedial
29 measures that may include, but are not limited to:

- 30 ▪ recontouring to re-establish preconstruction drainage patterns
- 31 ▪ slope stabilization and sediment control
- 32 ▪ weed management
- 33 ▪ supplemental seeding, planting, or staking

9. Reporting Requirements

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

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