A final copy of the compliance verification report for CV1920-482 is included at the end of this message. A response to requested information or non-compliance stated in the report must be submitted by the specified due date. You can use the "Submit Applications and Regulatory Documents" feature of the CER's website to file documents (in PDF or JPG format) electronically or send them directly to the officer via email. If this activity is a Field Inspection or Emergency Exercise Evaluation, the CER may post the results of the activity on its external website.

Identified non-compliances to company plans or procedures are non-compliances either to:

- the condition of an authorization document that requires implementation of that plan or procedure; or
- to the relevant section of the regulations that requires implementation of that plan or procedure including those sections that require implementation of plans or procedures as part of a Program.

Event Type
Implementation
Assessment Meeting

CV Event Number
CV1920-482

Selected Related Events

- CV1920-481

Project Companies

- Trans Mountain Pipeline ULC

Name of the Operating Company
Trans Mountain
Pipeline ULC

Rationale, Scope, and Additional Description
Pre-construction Implementation Assessment for Spreads 3 to 5A. The meeting will seek to verify compliance regarding vegetation mitigation measures Purpose: The purpose of the meeting will be to verify compliance with vegetation-related requirements, particularly mitigation measures that require implementation or detailed planning at the relatively early stage of construction for the Trans Mountain Expansion Project (TMEP). Scope and Applicable Regulatory Requirements: CVA1920-482 will be an office-based meeting where staff will verify compliance to the NEB Act, the Onshore Pipeline Regulations, Project Conditions and Company Commitments, notably (but not necessarily limited to) the requirements listed below. The meeting will focus on how Trans Mountain has implemented or is planning to implement vegetation mitigation measures for spreads 3-5A. CER staff will be looking for Trans Mountain to demonstrate whether and how it has implemented mitigation at this early phase in the project, and asking questions about how Trans Mountain plans to implement certain vegetation related mitigation measures or commitments as the project progresses. Related Conditions • Condition 6- Commitments re: Urban Trees, IDs 2256, 3367, 4003, 4004, 4005, (A7C4R4 dated December 2019) and general commitment in IR 6.12 Response (A4R6I4 PDF 56-57 of 121). • Condition 40- Rare Ecological Community and Rare Plant Population Management Plan (A90904-3 dated 28 March 2018). • Condition 42- Grasslands Survey and Mitigation Plan (A84318-3 dated June 2017). • Condition 45- Weed and Vegetation Management Plan (A84429-3, dated June 2017). •

Traditional Land and Resource Use Features as in Resource-Sepcific Mitigation Tables Spread 5A KP 806.47 to KP 990.27 (A7A8H7 dated Dec 2019]

Selected Province/Territory

- British Columbia

Landowner Complaint File Number
Not specified

Start Date
2020-02-12

End Date
2020-02-12

Inspection Officer Number

- 2558

Selected Disciplines

- Environmental Protection
- IAMC Observation

Tool Used:

- Information Request (IR) (9)

This inspection was undertaken to verify compliance with the following legislative requirements:

- National Energy Board Act (NEBA)
  - National Energy Board Onshore Pipeline Regulations (OPR)
- Canadian Energy Regulator Act (CERA)
  - Canadian Energy Regulator Act (CERA)
- Plans And Procedures
  - Project-specific Environmental Protection Plan (EPP)
    - Pipeline Environmental Protection Plan for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project Condition 72 [C01961, July 2019]
  - Project-specific plan or procedure
    - Rare Ecological Community and Rare Plant Population Management Plan [A90904-3]
  - Project-specific plan or procedure
    - Grasslands Mitigation plan [A84318-3]
  - Project-specific plan or procedure
    - Weed and Vegetation Management Plan [A85541)
  - Project-specific plan or procedure
    - Resource-Specific Mitigation Tables Spread 5A: KP 806.47 TO KP 990.27 or the Trans Mountain Pipeline ULC Trans Mountain Expansion Project Condition 72 [A7A8H7]
  - Project-specific plan or procedure

- Commitments re: Urban Trees, IDs 2256, 3367, 4003, 4004, 4005, [A7C4R4 dated December 2019] and general commitment in IR 6.12 Response [A4R6I4 PDF 56-57 of 121].

Selected Regulatory Instrument Numbers

- OC-065

Additional Project-specific Requirements or Conditions
Not specified

Facility Details

- Facility Types
  - Pipeline
    - • Pipeline right of way (ROW)
- Life-cycle Phases
  - • Pre-Construction

Additional Information

Selected Facilities

- TRANS MOUNTAIN EXPANSION PROJECT (Pipeline)

Observations (No follow-up required)

Compliance Summary

IR #1 Pre-IA Information Request regarding updates to plans

Date
2020-01-20

Discipline
Environmental Protection

Categories

- Vegetation
  - Vegetation Control
  - Invasive Plant Management
  - Vegetation Reclamation
  - Destruction of Vegetation
  - Species of Concern

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
As part of a response to Information Request 33 in July 2017 (A85140-2), Trans Mountain noted updates to the Grassland Survey and Mitigation Plan, and the Weed and Vegetation Management plan. The most recent versions the CER IO has accessed are from June 2017.

Tool Used
Information
Request (IR)

Legislative Requirement
OC-065

Condition Requirement
1

Applicable Wording from Legislative Document
Condition
1 Condition compliance: Trans Mountain must comply with all of the [certificate/order] conditions, unless the NEB otherwise directs.
Condition 2 Compliance with commitments: Without limiting Conditions 3, 4 and 6, Trans Mountain must implement all of the commitments it made in its Project application or to which it otherwise committed on the record of the OH-001-2014 proceeding, as well as the MH-052-2018 proceeding.

Company Action Required

1. Please provide, by uploading to the CVA1920-482 filed in ORCA, the most up to date versions of the plans that are within the scope of this CVA, i.e. those that Trans Mountain staff are working off of:

- Rare Ecological Community and Rare Plant Population Management Plan (Condition 40)
- Grasslands Survey and Mitigation Plan (Condition 42)
- Weed and Vegetation Management Plan (Condition 45)
- Old Growth Management Areas (OGMAs) Mitigation and Replacement Plan (Condition 76)

Due Date
2020-01-31

Inspector Analysis
Trans Mountain provided a response to the IR. Trans Mountain confirmed the dates of the most recent updates to the original plans (the only change to the list as provided by the IOs was to the Weed and Vegetation Management Plan (condition 45, updated filed August 2017). Trans Mountain stated "For all of these conditions (C 40, 42, 45, and 76), a summary of each plan and the specific mitigation measures contained in the plans have been incorporated into Appendix G of the C 72 Pipeline EPP. This was discussed in advance with CER staff and has been accepted/approved by the Commission as the most practical way going forward to ensure that mitigation is accurately and efficiently conveyed to Trans Mountain's contractors through the prime document that governs condition compliance." The CER confirmed with the OPM for the project that this was appropriate, but highlighted that if there is a discrepancy between the individual plans and the updated EPP, the most stringent migitation must be applied. The OPM noted that this has been communicated and continues to be re-iterated in letter reports issued by the CER.

Date Action Taken
2020-01-31

Date Confirmation Submitted to CER
2020-01-31

Reason Closed
Requirement
met

IR #2 Agenda and Detailed Information Request for Meeting

Date
2020-01-30

Discipline
Environmental Protection

Categories

- Vegetation
  - Vegetation Control
  - Invasive Plant Management
  - Vegetation Reclamation
  - Access Control
  - Destruction of Vegetation
  - Species of Concern

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
An attached agenda and Information Requests (IRs) outlines topics CER staff plan to discuss during the in-person IA meeting planned for 11 Feb 2020. Specific questions to verify compliance are included below. A response to these IRs is not requested in advance of the meeting, however, it is requested that Trans Mountain be prepared to provide information and details to respond to the requests outlined below during the meeting. Unless otherwise specified, the information can be provided in discussion or presentation format at the meeting. Specific documentation in support of the responses may be requested during the meeting, and copies of any presentations prepared will be requested after the meeting.

The purpose of these information requests, and the meeting in general is for CER staff to verify compliance with project requirements as outlined in the plans submitted in response to conditions 40 (Rare Ecological Community and Rare Plant Population Management), 42 (Grasslands Survey and Mitigation), 45 (Weed and Vegetation Management), and 6 (Commitments Tracking). No specific IRs were included regarding Condition 76.

Tool Used
Information
Request (IR)

Legislative Requirement
OC-065

Condition Requirement
2

Applicable Wording from Legislative Document
Condition
2 Compliance with commitments: Without limiting Conditions 3, 4 and 6, Trans Mountain must implement all of the commitments it made in its Project application or to which it otherwise committed on the record of the OH-001-2014 proceeding, as well as the MH-052-2018 proceeding.

Company Action Required

Condition 40 Rare Ecological Community and Rare Plant Population Management Plan [A90904-3]
SARA-listed species, Mexican Mosquito Fern KP 750-753
Requirement
Appendix E: "The extent of early draft critical habitat is not publically available and is provided with the permission of ECCC.
Inform all users of the KP range within which to apply the associated site-specific mitigation and access restrictions.
In the event that areas that possess the ecological attributes required for Mexican mosquito fern, such as open water features, are identified in critical habitat on the pipeline construction footprint prior to construction, reduce disturbance to these areas.
Restore or enhance biophysical attributes of critical habitat by revegetating the pipeline construction footprint using native grasses, forbs, tree or shrub seeds and propagation materials where feasible to improve soil structure and reduce soil erosion.
Note: Several of the disturbance reduction mitigation measures listed in Section 5.1.8 will only apply if ecological attributes, such as open water features, are identified."
Request
During the meeting, in discussion, presentation or other format:

- Discuss the status of surveying, staking and assessment to identify the ecological attributes required for Mexican mosquito fern on the footprint. Discuss the results.
- Discuss the details of the mitigation measures listed above that will be implemented. For example, how have users of the KP range been notified of the mitigation, or how will they be notified (include timeline). Discuss how the habitat will be restored or enhanced.
- Confirm whether sources of native grasses, forbs, tree or shrub seeds and propagation materials are available. Discuss the feasibility of implementing this cited mitigation.

SARA-listed species, Roell's Brotherella Moss
Requirement
Appendix E "The extent of early draft critical habitat is not publically available and is provided with the permission of ECCC. Inform all users of the KP range within which to apply the associated site-specific mitigation and access restrictions.
Restore or enhance biophysical attributes of critical habitat by revegetating the pipeline construction footprint using native grasses, forbs, tree or shrub seeds and propagation materials where feasible to improve soil structure and reduce soil erosion.
There are no areas where biophysical attributes of critical habitat are present within the pipeline construction footprint within this early draft critical habitat polygon."

"KP1038.05 to 1038.18, 1062.56 to 1062.60 – Location of interest that possesses the ecological attributes required for Roell's brotherella moss within Roell's brotherella moss early draft critical habitat"
"Pre-disturbance, screen for Roell's brotherella.
Reduce disturbance to areas that possess the ecological attributes required for Roell's brotherella moss, where feasible and when safety is not compromised.
If Roell's brotherella moss is located on the pipeline construction footprint and it cannot be avoided, relocate its substrate to a suitable habitat in the immediate vicinity of the Project. The location (e.g., aspect and vertical position) and habitat (e.g., substrate, light and humidity conditions) of the receiving sites will emulate conditions, including the substrate types that occurred in the critical function zone
at the transplant source location, to the extent feasible.
Ensure pre-construction contours are restored to maintain site hydrology."
Request
During the meeting, in discussion, presentation or other format:

- Confirm if vegetation surveys for this species have occurred at KP 1038.05-1038.18, 1043.78-1044.22, KP 1062.56-1062.60, KP 1138.54-1140.16 and if completed, provide the results of those surveys regarding presence of Roell's brotherella or suitable habitat. If not completed confirm the timeline of the surveys.
- Discuss the details of the mitigation measures listed above that will be implemented. For example, how have users of the KP range been notified of the mitigation, or how will they be notified (include timeline). What relocations are required? Discuss how the habitat will be restored or enhanced.
- Confirm whether sources of native grasses, forbs, tree or shrub seeds and propagation materials are available. Discuss the feasibility of implementing this cited mitigation.

S2 Species, Michigan Moonwort (Traditional Use Plant)
Requirement
Appendix E: "Hand transplant the population during the active growing season to a biologically suitable recipient site (i.e., similar light and moisture regime) off of the pipeline construction footprint prior to construction.
If the area will be stripped, salvage the organic layer (up to 15 cm) from within a 10 m radius of the occurrence; isolate topsoil from other spoil piles and identify with labelled stakes or flags; redistribute salvaged topsoil over the pipeline construction footprint at the location from which it was stripped."
Request
During the meeting, in discussion, presentation or other format:

- Confirm if identification and staking has occurred
- Discuss the status of the pre-construction mitigation required, notably hand transplant.

- If complete, provide documentation demonstrating the work that was completed, including a description of the transplant location.
- If not complete, discuss details of the planned implementation, including timeline and rationale.

S2 Ecological Communities – Douglas-fir/common snowberry – Saskatoon (Traditional Use Plants occur in community) (e.g. KP 806.73 to 807.71)

Requirement

Appendix E: "If feasible, and following danger tree assessment, Douglas-fir trees older than 150 years or with a diameter of approximately 3 m or greater will be avoided at this location during construction.
Mow or walk down shrubs or use a stump mulcher rather than grubbing, if feasible, to minimize the loss of vegetation cover.
Conduct shrub staking with suitable native woody species following completion of construction if feasible.
Leave gaps in the spoil piles within a 10 m radius of the occurrence if this is spoil side or temporarily cover the site (e.g., with snow, geotextile pads, flex net, swamp mats) if this is travel side.
If the area will be stripped, salvage the organic layer (up to 15 cm) from within a 10 m radius of the occurrence; isolate topsoil from other spoil piles and identify with labelled stakes or flags; redistribute salvaged topsoil over the pipeline construction footprint at the location from which it was stripped.
Ensure pre-construction contours are restored to maintain site hydrology"

Request

During the meeting, in presentation or other format:

- What is the status of surveying?
- Provide the results of any assessment that has occurred at this location – how many trees will be avoided, how many will be removed, description and justification for the trees that cannot be avoided.
- Discuss the status of mitigation implementation and any final decision making at this location.

S2 Ecological Communities – Rough fescue bluebunch wheatgrass (KP 825.79 to 826.21)

Requirement

Appendix E: "Clearing in the rare ecological community will occur immediately before construction, if practical.
Employ appropriate salvage, propagation and transplant techniques for component species as detailed in Table 5-10 and Table 5-11 of the Grasslands Survey and Mitigation Plan for the Trans Mountain Pipeline, NEB Condition 42 and Table 6-9 of the Reclamation Management Plan (Volume 6, of the Environmental Plans). Conduct native seed collection for use in revegetation

efforts at the site if feasible.
Leave gaps in the spoil piles within a 10 m radius of the occurrence if this is spoil side or temporarily cover the site (e.g., with snow, geotextile pads, flex net, swamp mats) if this is travel side.
The Project grassland specialist will be onsite during clean-up activities."
Request
During the meeting, in presentation or other format:

- Discuss the salvage, propagation and transplanting that has occurred at this site, or discuss the plans to implement this mitigation
- Discuss whether native seed collection has occurred.
- If native seed collection has not occurred, provide the detailed rationale.

Condition 42 Grasslands Mitigation plan [A84318-3]
Cryptogamic Crust
Requirement
"Cryptogamic crust salvage at specific locations in the BC Interior grasslands (i.e., Lac du Bois Grasslands Protected Area). This activity will occur pre-construction, before Project equipment for clearing or soil disturbance conduct work in the pipeline construction footprint." Reclamation Plan page 7.
Request
During the meeting, in presentation or other format:

- Provide evidence that demonstrates that this has occurred at spread 5A notably between KP841 and 846, where construction work is understood to be commencing in approximately February.
- Provide the qualifications of the person(s) on site during the salvage process – i.e. demonstrate that persons conduct this work are the Grasslands Specialists or "Botanist that can detect the cryptogamic crusts"
- Discuss the detailed plans for cryptogamic crust salvage and storage at the remainder of spread 5A.

Native seed collection and propagation
Requirement
"Collecting native seed from component species of rare ecological communities, and propagating new plants from the seed (rooted plugs) is the primary method the Project is using to restore species to the rare ecological communities. If seed of the component species is not available, plant salvage and transplant will be used. For example, appropriate rough fescue cultivars are limited and if adequate rough fescue seed cannot be collected, individual plants will be salvaged from the Project Footprint prior to construction. The salvaged plants will be divided into tillers and grown into rooted plants in a nursery. Some whole plants may be retained and transplanted back to the rough fescue-bluebunch wheatgrass rare ecological community during reclamation"
Table 5-6: "Employ appropriate salvage, propagation and transplant techniques

for component species. Conduct native seed collection for use in revegetation efforts at the site if feasible."

Seed Collection Program
"Native seed will be collected from a variety of species that naturally occur in plant communities in native grasslands. Additional seed from forb species may be collected if sufficient quantities of mature seed are found during the grass and shrub collection periods. Forb seed collection will occur as the opportunity arises. Forb species will not be targeted for seed collection because forb seed will be retained in the salvaged topsoil/root zone material and forb species will re-establish following construction.

Grass and shrub seed will be collected before construction. Local grass seed was collected by Tk'emlups te Secwepemc First Nation in 2014 and additional grass and shrub seed was collected in 2016. Additional
seed collection will take place in 2017."
Request
Verbally, or in presentation format during the meeting:

- Provide an overview of and update regarding native seed collection that has occurred between spreads 3-5A.
- What/where have whole plants been salvaged
- Describe the what has occurred regarding growing seeds into rooted plants for future transplant and for maintaining the salvaged plants?
- Where has "appropriate salvage, propagation and transplant" occurred (approximate KPs, or shown on map)
    - which species were collected, which species were salvaged /propagated. See list of locations/areas in Table 5-6

Installation of Nursery Grown Grass Plugs and Installation of Trees and Shrubs
Requirement
"Rooted grasses (grass plugs) that are produced from locally collected seed will be installed in the Lac du
Bois Grasslands Protected Area and Kamloops natural grassland municipal parks. Rooted grasses from
locally collected seed will be planted in locations outside of the Lac du Bois Grasslands Protected Area and Kamloops natural grassland municipal parks if appropriate species are available. Established nurseries with experience growing native plants will be used to produce the rooted plants."

"Native shrubs and trees will be produced from locally collected seed, dormant woody species cuttings or purchased from local suppliers. Established nurseries that have experience growing native plants will be used to produce the stock. Additional stock may be purchased from existing stock grown by local native

plant nurseries. See Section 5.3.6.1 for seed collection methods."

TABLE 5-11 TREE AND SHRUB SPECIES SUITABLE FOR PLANTING IN NATIVE GRASSLANDS […]

Request
During the meeting:

- Provide an update on the status of obtaining and growing rooted grasses (grass plugs).
- Specify which established nurseries that have been identified as having experience with growing native plants and shrubs.
- Provide details on which species, of the tree and shrub species suitable for planting in native grasslands listed in Table 5-11 have been sourced, rooted plants are available and seeds were collected, and which species are outstanding for sourcing.

Pre-construction Invasive Plant Treatment

Requirement
Grasslands Mitigation Plan [A84318-3]
Table 5-1: "Invasive species that are in native grasslands and are identified for treatment before construction include some areas with Russian, diffuse, big-headed and spotted knapweed; Dalmatian toadflax; common tansy; sulphur cinquefoil; plumeless thistle; hoary alyssum and; hound's tongue. Additional species may be treated. Weed management will be conducted in consultation with BC Parks and BC MFLNRO."

Weed Management Plan Appendix E Priority Invasive Species Information for KP 489.2 to 610.6 [A84429-3]
"Some invasive plant treatments will occur before construction. The invasive species and sites that will be targeted for treatment before construction will be determined when the construction plan has been
finalized. Weed control methods will vary with the season of construction, the current land use (*i.e.,* agricultural or forestland), the mode of reproduction of the target species and the extent of the infestation.
In general, efforts will be made to control small, isolated weed populations using manual or chemical
treatments and contain extensive infestations by limiting seed set and soil movement at the boundaries of the large infestations."
Table 12: "1. The effectiveness of pre-construction weed control measures conducted in the Project Footprint, at permanent and temporary facilities, and existing access roads will be assessed the year treatment occurs. Remedial weed control actions will be conducted if weed control efforts were not successful. Treatments are considered successful if there is a 98% kill rate of the targeted species."

Table N22 Pre-Construction Invasive Plant Treatment Sites
Request
During the meeting, discuss or present the following:

- What is the status of pre-disturbance invasive plant treatment and decision making for Spread 5A, particularly KP 541 to 546 (Kamloops urban section) and any associated access roads
  - Reference the KPs and species cited in Table N-22 sites for that section
- What is the plan for pre-disturbance invasive plant treatment in other areas of spreads 3-5A (include timelines for assessment, decision making and treatment).
- Discuss the results of monitoring at any pre-treatment areas that has occurred (per Table 12 Invasive Monitoring Schedule in the Weed and Vegetation Management Plan). Were treatments successful?

Other Pre-Disturbance Mitigation Measures
Requirement
Table 5-1 PRE-CONSTRUCTION MITIGATION MEASURES FOR NATIVE GRASSLANDS

Activity	**Mitigation Measure [Pipeline EPP Reference, if any]**	**References for Additional Information (Environmental Plan Volume)**
Protect Special Vegetation Features	· Rare ecological communities and rare plant populations adjacent to the pipeline construction footprint will be staked and/or fenced. · Trans Mountain will work with BC Parks to identify areas that may require fencing or signage to ensure the safety of park users within the Lac du Bois Grasslands Protected Area.	· Rare Ecological Community and Rare Plant Population Management Plan (Volume 6).

Table 5-6 SPECIAL CLEARING REQUIREMENTS FOR RARE ECOLOGICAL COMMUNITIES WITHIN NATIVE GRASSLANDS

KP Start	**KP End**	**Feature**	**Clearing Requirements**
825.6	825.7	Trembling aspen/snowberry/Kentucky bluegrass	• Protect sites adjacent to the work area using fencing or clearly mark the site using flagging and inform all workers of access restrictions in the vicinity of flagged or fenced sites. • Clearing in the rare ecological community will occur immediately
828.5 828.6 829.0	828.6 828.7 829.2	big sagebush/bluebunch wheatgrass	

829.7 830.6 836.2 843.7	830.2 831.0 837.2 844.2		before construction, if practical. • Employ appropriate salvage, propagation and transplant techniques for component species. Conduct native seed collection for use in revegetation efforts at the site if feasible. • Reduce or avoid grubbing of roots in shrubby communities within temporary workspace, where feasible. • Cut off or walk down rather than wholly remove shrubs, where feasible.
831.4 844.2	831.9 845.9	ponderosa pine/bluebunch wheatgrass rough fescue	
830.2	830.4	ponderosa pine/bluebunch wheatgrass	
825.7 829.2	826.2 829.3	rough fescue-bluebunch wheatgrass	
828.7	829.0	bluebunch wheatgrass-June grass	
827.3	827.4	giant wildrye Herbaceous Vegetation	

Request
During the meeting, respond with a table, adding an extra column, to provide a response regarding the status of implementation of each bullet in the excerpts from Table 5-1 and 5-6.

- what has been done
- what is underway
- what has been planned (schedule)
- when other actions will occur

Weed and Vegetation Management Plan [A84429-3]

Project Weed Database
Requirement
"The survey weed data will be held in a Project weed database and a spatial file (shapefile) and the data
will be entered into the BC IAPP database on or before December 31 of each year."

Request

- During the meeting, provide a brief demonstration of the Project weed database (shapefile) for Spread 5A.
- Identify any locations where weed surveys have not been completed due to access issues.

Project Ancillary sites and Access Roads
Requirement
"High priority invasive plants at temporary Project ancillary sites, along access

roads and on the Project right-of-way that are actively growing during construction will be controlled prior to ground disturbance. The treatment method will depend on the invasive plant species, growth stage of the plant and sensitivities of the site location."
Request

- Discuss an example where this has occurred

Weed Check Sites and Equipment Cleaning Stations
Requirement
TABLE 7: INVASIVE PLANT SPECIES PREVENTION AND CONTROL MEASURES
"10. Work with the Contractor and Landowners to identify the most effective locations for cleaning stations and ensure the cleaning stations are established according to specified standards.
11. Set-up and use invasive plant check sites at locations determined in consultation with the Environmental Inspector. Weed
check sites occur along the Project Footprint, before entering weed free zones and before leaving weed-infested zones."
Request

- During the meeting, demonstrate (map or other means) the locations of i) weed check sites and ii) cleaning station locations at Spread 5A.
- What is the status of planning and setting up the cleaning stations and weed check sites for Spreads, 3, and 4.

Traditional Land and Resource Use Features, Spread 5A [A7A8H7]
Plant Gathering Sites
Requirement
Resource Specific Mitigation Table 3.0-2 TRADITIONAL LAND AND RESOURCE USE FEATURES IN BRITISH COLUMBIA
TLU-34, 35, 36; Buffered KPs 908.53 to 908.73; 910.61 to 910.91; and, 927.63 to 927.93 "Review the location of the traditional plant gathering site prior to construction activities to determine whether the site will be impacted. If the site will be impacted, notify the affected Indigenous group a minimum of 4 weeks prior to construction and provide the opportunity to harvest traditional plants"
Request
During the meeting:

- Provide an update on the status of implementation of these mitigation measures. Include confirmation of the location vs. the project area, and discuss any opportunities to harvest traditional plants that have been initiated.

- Discuss how construction timing affects implementation of this mitigation. For example, will anticipated construction timing enable effective harvesting opportunities by the affected indigenous group.

Due Date
2020-02-11

Inspector Analysis
Trans Mountain and CER staff discussed Trans Mountain's responses to the request during the course of the IA. Trans Mountain prepared a presentation that it delivered in response to the IR. All topics were covered in the presentation, with the exception of the request regarding Traditional Land and Resource Use Features Spread 5A, Plant Gathering Sites. Subsequent to the meeting, additional IRs were issued. See Meeting Minute Summary and Presentation prepared by Trans Mountain attached to this CV activity.

Date Action Taken
2020-02-11

Date Confirmation Submitted to CER
2020-02-11

Reason Closed
Requirement
met

IR #3 Evaluation of Transplant Success

Date
2020-02-11

Discipline
Environmental Protection

Categories

- Vegetation
  - Species of Concern

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
Trans Mountain confirmed that transplant of Michigan Moonwort (traditional use plant) had occurred in Spread 3. Locations were identified and field marked for transplantin in 2017 and transplanting occurred in 2018 by Simpcw First Nation. A final report by Estsek is available (Sept 2018) but was not reviewed by the IO.
Trans Mountain reps could not confirm whether the transplant locations had been re-visited in order to evaluate success of the transplant mitigation in 2019 (one year after transplanting). The IO notes that the transplanting that was implemented in 2017/2018 was likely implemented prior to project delays, which makes the timing of transplant monitoring / evaluation uncertain.

Tool Used
Information
Request (IR)

Legislative Requirement
Rare
Ecological Community and Rare Plant Population Management Plan [A90904-3]

Applicable Wording from Legislative Document
Table 8
PERFORMANCE INDICATORS AND MEASURABLE TARGETS FOR PROVINCIALLY LISTED RARE
PLANT POPULATIONS AND RARE ECOLOGICAL COMMUNITIES General Mitigation Category: Alternative Reclamation Techniques Measurable Goal: Survival of transplanted, relocated or inoculated species during the first growing season following final clean-up, or in a subsequent year if the outcome of mitigation is not evident during the first growing season Performance Indicator: Presence of transplanted, relocated or inoculated rare plant or rare lichen population Measurable Target: Survival of transplanted individuals and/or native seedling emergence, growth and survival during the growing season following final clean-up, or in a subsequent year if the outcome of mitigation is not evident during the first growing season;

Company Action Required
Confirm that transplant success will be evaluated. If so, describe (with rationales) the timing, process and criteria that will be applied to define success (e.g. when/how often sites will be visited and by who, what percentage survival for transplants is anticipated, particularly for Michigan Moonwort, and what will be considered successful).
For all transplants that have occurred within Spreads 3-5A one- or more year(s) ago, confirm whether a 1-year follow-up evaluation was conducted to assess the transplant locations.
If an evaluation was conducted, provide a summary of the results, and whether further evaluation/monitoring is planned (including rationale).

If an evaluation was not conducted, provide the rationale and plan for future evaluation/monitoring at transplant locations.

Due Date
2020-05-01

Inspector Analysis

Date Action Taken
Not specified

Date Confirmation Submitted to CER
Not specified

Reason Closed
Not specified

IR #4 Douglas-fir/common Snowberry-Saskatoon Community Location (s)

Date
2020-02-11

Discipline
Environmental Protection

Categories

- Vegetation
  - Species of Concern

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
Table 2 (TEK and TLU Information on Rare Plant Species Along the Pipeline Route), states that near KP 861.6, 861.4 a participant had requested that all Douglas fir trees older than 150 years or with a diameter of approximately 3 m or greater be avoided during construction. Table E-2 (Mitigation for the occurrences of rare plants, lichens and ecological communities observed along the pipeline construction fototprint in British Columbia) indicates this community occurs at KP 806.73 to 807.71, and similar mitigation is cited for that location.

The location(s) of this ecological community in relation to the project requires clarification.

Tool Used
Information
Request (IR)

Legislative Requirement
Rare
Ecological Community and Rare Plant Population Management Plan
[A90904-3]

Applicable Wording from Legislative Document
Table 2
"Species Douglas-fir/common snowberry-saskatoon; Nearest KP: 861.6, 861.4 Concerns: Participants requested that these trees be protected since older trees such as this one are crucial for spreading their seeds. These trees are located >50 m from the Project Footprint. Participant requested that all Douglas fir trees older than 150 years or with a diameter of approximately 3 m or greater be avoided during construction" Table E-2 Douglas-fir/common snowberry - saskatoon KP: 806.73 to 807.71; Abundance and Distribution: This community was observed in a 1.17 km × 0.1 km area paralleling an existing right-of-way; Relation to Pipeline Construction Footprint/Project Component: Community occurs on both edges of the pipeline construction footprint. From approximately 7 m east of centreline the community extends to off the pipeline construction footprint to the east. From approximately 4 m west of centreline the community extends off of the pipeline construction footprint to the west; Mitigation and Discussion: If feasible, and following danger tree assessment, Douglas-fir trees older than 150 years or with a diameter of approximately 3 m or greater will be avoided at this location during construction."

Company Action Required
Confirm the locations of the Douglas-fir/common snowberry-saskatoon community along the pipeline route. Provide an explanation regarding the differences in the locations cited.

Due Date
2020-05-01

Inspector Analysis

Date Action Taken
Not specified

Date Confirmation Submitted to CER
Not specified

Reason Closed
Not specified

IR #5 S2 Ecological Communities – Douglas-fir/Common Snowberry – Saskatoon Feasibility of Saving (Avoiding) Particular Trees

Date
2020-02-11

Discipline
Environmental Protection

Categories

- Vegetation
  - Species of Concern

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
During the IA meeting Trans Mountain indicated that the last field survey was conducted in 2013, and that the feasibility of saving (avoiding) particular trees (i.e. Douglas-fir trees older than 150 years or with a diameter of approximately 3 m or greater) is yet to be determined, and would be determined in the field, after a pre-construction assessment. Additional information regarding the planned decision making is requested.

Tool Used
Information
Request (IR)

Legislative Requirement
Rare
Ecological Community and Rare Plant Population Management Plan [A90904-3]

Applicable Wording from Legislative Document
Appendix E: "If
feasible, and following danger tree assessment, Douglas-fir trees older

than 150 years or with a diameter of approximately 3 m or greater will be avoided at this location during construction.

Company Action Required
Provide a discussion regarding the factors and items to be considered that will be taken into account during on-site decision making, where field staff will determine the feasibility of saving (avoiding) Douglas fir trees with the characteristics noted. Discuss how Trans Mountain's field staff will prioritize each factor and items to be considered during on-site decision making.

Due Date
2020-05-01

Inspector Analysis

Date Action Taken
Not specified

Date Confirmation Submitted to CER
Not specified

Reason Closed
Not specified

IR #6 Whole Plant Salvage for Reclamation

Date
2020-02-11

Discipline
Environmental Protection

Categories

- Vegetation
  - Vegetation Reclamation
  - Species of Concern

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations

The IOs require furhter details regarding Trans Mountain's plans to conduct whole plant salvage as a component of the project, partifularly as part of project reclamation.

Tool Used
Information
Request (IR)

Legislative Requirement
Grasslands
Mitigation plan [A84318-3]

Applicable Wording from Legislative Document
"Collecting
native seed from component species of rare ecological communities, and propagating new plants from the seed (rooted plugs) is the primary method the Project is using to restore species to the rare ecological communities. If seed of the component species is not available, plant salvage and transplant will be used. For example, appropriate rough fescue cultivars are limited and if adequate rough fescue seed cannot be collected, individual plants will be salvaged from the Project Footprint prior to construction. The salvaged plants will be divided into tillers and grown into rooted plants in a nursery. Some whole plants may be retained and transplanted back to the rough fescue-bluebunch wheatgrass rare ecological community during reclamation" Table 5-6: "Employ appropriate salvage, propagation and transplant techniques for component species. Conduct native seed collection for use in revegetation efforts at the site if feasible."

Company Action Required
1. Describe how whole plant salvage [KF1] will fit into the reclamation plan for the project, particularly for Spreads 3-5A.

2. Discuss whether and how the results of pre-construction surveys will inform plant salvage activities, and subsequent reclamation. ?Confirm whether pre-disturbance assessments includes identification of the quantities or volume of reclamation materials that are expected to be required.

3. Discuss the planning process for whole plant salvage. Include in the discussion:

i. Has Trans Mountain identified a targeted quantity or volume for whole plant salvage? If so, what are the targets based on?:

- Are targets based on seed availability?
- Are targets determined based on quantities required as determined by pre-disturbance assessments?

ii. If Trans Mountain has not identified a target quantity or volume for whole plant salvage, why not?

4. Describe the planned storage and maintenance that will be implemented for salvaged plants.

Due Date
2020-05-01

Inspector Analysis

Date Action Taken
Not specified

Date Confirmation Submitted to CER
Not specified

Reason Closed
Not specified

IR #7 Weed Check Sites

Date
2020-02-11

Discipline
Environmental Protection

Categories

- Vegetation
  - Invasive Plant Management

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
Further informaton is required regarding "weed check sites."

Tool Used

Information
Request (IR)

Legislative Requirement
Weed
and Vegetation Management Plan [A85541)

Applicable Wording from Legislative Document
11.
Set-up and use invasive plant check sites at locations determined in consultation with the Environmental Inspector. Weed check sites occur along the Project Footprint, before entering weed free zones and before leaving weed-infested zones."

Company Action Required

1. Describe what a "weed check site" is.
2. Discuss how it is different or similar to a Level 1 Cleaning Station
3. Provide the locations of Weed Check Sites on Spread 5A (if different from the map of cleaning station locations on Spread 5A that was previously provided).

Due Date
2020-05-01

Inspector Analysis

Date Action Taken
Not specified

Date Confirmation Submitted to CER
Not specified

Reason Closed
Not specified

IR #8 Urban Tree Commitments

Date
2020-02-11

Discipline
Environmental Protection

Categories

- Vegetation
  - Vegetation Reclamation
  - Destruction of Vegetation

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
An IR regarding Urban Tree replacement commitments was unintentionally ommitted from the initial IR package. Information to verify compliance to urban tree commitments is required.

Tool Used
Information
Request (IR)

Legislative Requirement
Commitments
re: Urban Trees, IDs 2256, 3367, 4003, 4004, 4005, [A7C4R4 dated December 2019] and general commitment in IR 6.12 Response [A4R6I4 PDF 56-57 of 121].

Applicable Wording from Legislative Document
Condition 6,
Commitment IDs 2256, 4003, 4004, 4005, re: Urban Trees (A7C4R4 dated December 2019), e.g.: "Trans Mountain will engage a qualified arborist to develop a Tree Plan specific to municipal lands directly impacted by the pipeline construction, in Spread 6. Trans Mountain will ensure this plan will identify the species and number of trees to be removed from the construction right-of-way. Trans Mountain will ensure it will be provided to the City or Municipality, and will be used to develop details of the Reclamation Plan in consultation with the City and landowners." Other References: - Response to City of Abbotsford IR 2 (motion to compel) A4J5A2 PDF Page 7-8; - Response to NEB IR 6 A4R6I4 PDF pages 56-57.

Company Action Required
1. Provide evidence that demonstrates that pre-disturbance tree surveys have been completed and that a Tree Plan was developed for the following cities and municipalities. Provide evidence that demonstrates whether and how the findings of the Tree Plan have been included in the Reclamation Plan or other plans, or the status of any planned updates.

- Abbotsford (provide a copy of this Tree Plan)
- Edmonton (evidence that a Tree Plan was not required)
- Langley

- Burnaby

2. List the municipalities that were contacted regarding a Tree Plan. Confirm which municipalities wanted a tree plan and which did not.

Due Date
2020-05-01

Inspector Analysis

Date Action Taken
Not specified

Date Confirmation Submitted to CER
Not specified

Reason Closed
Not specified

IR #9 Traditional Land and Resource Use Features, Spread 5A [A7A8H7] Plant Gathering Sites

Date
2020-02-11

Discipline
Environmental Protection

Categories

- Socio-economic
  - Traditional Land and Resource Use

Facility

- TRANS MOUNTAIN EXPANSION PROJECT

Latitude
Not specified

Longitude
Not specified

Observations
An information Request was previously provided to Trans Mountain to be covered and discussed during the meeting, however, a response was not provided at the meeting. Information is required to verify compliance.

Tool Used

Information
Request (IR)

Legislative Requirement
Pipeline
Environmental Protection Plan for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project Condition 72 [C01961, July 2019]

Applicable Wording from Legislative Document
Resource
Specific Mitigation Table 3.0-2 TRADITIONAL LAND AND RESOURCE USE FEATURES
IN BRITISH COLUMBIA [[A7A8H7] TLU-34, 35, 36; Buffered KPs 908.53 to 908.73; 910.61 to 910.91; and, 927.63 to 927.93 "Review the location of the traditional plant gathering site prior to construction activities to determine whether the site will be impacted. If the site will be impacted, notify the affected Indigenous group a minimum of 4 weeks prior to construction and provide the opportunity to harvest traditional plants"

Company Action Required

1. Provide an update on the status of implementation of these mitigation measures. Include confirmation of the location vs. the project area, and discuss any opportunities to harvest traditional plants that have been initiated.
2. Discuss how construction timing affects implementation of this mitigation. For example, will anticipated construction timing enable effective harvesting opportunities by the affected indigenous group
3. Is there any alternate mitigation that would meet this intent if the pre-disturbance harvesting is not effective or appropriate?
4. Is there any specific reclamation plans that will enable the plants gathered at these sites to be re-vegetated (e.g. replaced or confirm natural re-vegetation occurs) during reclamation, i.e. describe how Trans Mountain will ensure these plants return?

Due Date
2020-05-01

Inspector Analysis
The IR was initially sent with the Agenda, however no response was provided during the meeting. It seemed that a presentation was not provided by the Trans Mountain specialist assigned to provide the response. IOs indicated a follow-up written IR would be sent. Citing this re-issuance of the IR as an extension granted.

Date Action Taken
Not specified

Date Confirmation Submitted to CER
Not specified

Reason Closed
Not specified
