



**TRANS MOUNTAIN EXPANSION PROJECT
Technical Working Group (TWG)
Report Update**

NEB Condition 49

October 13, 2017



TABLE OF CONCORDANCE

Condition 49 is applicable to the following legal instruments: OC-064 (CPCN). Table 1 describes how this report addresses the Condition requirements applicable to Condition 49.

TABLE 1

LEGAL INSTRUMENT CONCORDANCE WITH NEB CONDITION 49: TECHNICAL WORKING GROUP (TWG) REPORT UPDATE

NEB Condition 49	OC-064 (CPCN)
Trans Mountain must file with the NEB, at least 4 months prior to commencing construction, and every 6 months thereafter until after commencing operations, a report describing the activities undertaken by the TWGs during the reporting period and the outcomes of these activities. The reports must include, at a minimum:	See below
a) A list of all members of each TWG;	Section 1.2
b) The methods, dates and location of all TWG activities or meetings;	Section 3.0
c) A summary of all issues or concerns raised or addressed during the TWG activities;	Section 4.0
d) A description of outcomes or measures that were or will be implemented to address the issues identified or concerns raised; or, if any measures will not be implemented, a rationale for why not; and	Section 4.0
e) A description of any unresolved issues or concerns, and a description of how these will be addressed, or a rationale for why no further measures will be required.	Section 4.0

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1.0 INTRODUCTION

1.1 About This Document

The purpose of this document is to present a Technical Working Group (TWG) Report Update and to satisfy the requirements of National Energy Board (the “NEB” or “Board”) Condition 49.

Trans Mountain Pipeline ULC (Trans Mountain) owns the existing Trans Mountain Pipeline System (TMPL), which Kinder Morgan Canada Inc. (KMC) has operated on its behalf for almost 65 years. Through this extensive operational history, Trans Mountain and KMC have developed long standing relationships with municipalities and regional governments along the TMPL corridor. Trans Mountain has been building on these relationships along the Project corridor in the development of the Trans Mountain Expansion Project (“TMEP” or “Project”), and will continue to do so through construction and eventual operation. TWGs have served, and will continue to serve, as the preferred vehicle for gathering technical information from affected municipalities and to address concerns raised by municipalities so the Project may be constructed in a manner acceptable to affected communities. Other filings that relate to this document are:

- NEB Condition 14 – Technical working group (TWG) Terms of Reference dated February 16, 2017 ([A81760](#))
- NEB Condition 49 – Technical working group (TWG) Report dated April 13, 2017 ([A82625](#))

This report provides an update on the development and progress of TWG activities for the period of April 1, 2017 to September 30, 2017.

1.2 TWG Members

As noted in Trans Mountain’s filing pursuant to Condition 14 ([A81760](#)), following the issuance of the Board’s recommendation to federal cabinet with respect to TMEP, Trans Mountain invited all municipalities along the Project corridor to re-establish TWGs. TWG meetings restarted in December 2016 and are ongoing.

Trans Mountain has established regular TWG meetings with most municipalities and continues to follow up by phone and email to schedule meetings with municipalities who have not yet re-formed a TWG.

Table 1.1 provides an update on the status of the TWG meetings as of September 30, 2017.

TABLE 1.1

MUNICIPALITIES INVITED TO FORM TECHNICAL WORKING GROUPS

Alberta Municipal Governments	Status	BC Municipal Governments	Status
City of Edmonton	Invited and accepted; TWG meetings pending for Q4 2017	City of Abbotsford	Invited and accepted; TWG meetings underway
City of Spruce Grove	Invited and not yet established. Pending for Q4 2017	City of Burnaby	Invited and accepted; TWG meetings underway
Parkland County	Invited and accepted. TWG meetings underway	City of Chilliwack	Invited and accepted; TWG meetings underway

Strathcona County	Invited and accepted; TWG meetings underway
Town of Edson	Invited accepted; pending for Q4 2017 depending on construction schedule
Town of Hinton	Invited and accepted. TWG meetings underway
Town of Stony Plain	Invited and not yet established; pending for Q4 2017
Village of Wabamun	Invited and not yet established; pending for Q4 2017
Yellowhead County	Invited and accepted; TWG meetings underway

City of Coquitlam	Invited and accepted; TWG meetings underway
City of Kamloops	Invited and accepted; TWG meetings underway
City of Merritt	Invited and accepted; TWG meetings underway
City of Surrey	Invited and accepted, TWG meetings underway
District of Clearwater	Invited and accepted; TWG meetings underway
District of Hope	Invited and accepted; TWG meetings underway
Fraser Valley Regional District (FVRD)	Invited and accepted; TWG meetings underway
Metro Vancouver Regional District	Invited and accepted; TWG meetings underway
Regional District of Fraser Fort George	Invited and accepted; TWG meetings underway
Thompson Nicola Regional District, representing: Community of Avola Community of Blue River Community of Little Fort Community of Vavenby	Invited and accepted; TWG meetings underway
Township of Langley	Invited and accepted; TWG meetings underway
Village of Valemount	Invited and accepted; TWG meetings underway

The majority of municipalities invited to re-establish TWGs with Trans Mountain have accepted, and most TWGs are established. Table 1.2, below, lists municipalities that have yet to re-engage in a TWG. Some municipalities initially declined to participate in a TWG with Trans Mountain indicating a desire to postpone participation until a date closer to construction. Trans Mountain will continue to offer invitations to participate in a TWG to those municipalities listed in Table 1.2.

It is Trans Mountain’s goal is to have regularly scheduled meetings with each remaining municipality by Q1 2018; updates will be provided in future submissions pursuant to Condition 49.

TABLE 1.2
MUNICIPALITIES YET TO RE-ENGAGE IN TWG MEETINGS

Municipality (AB)	Status	Meeting Date
City of Edmonton	Invitation accepted; first TWG meeting pending.	Anticipated Q4 2017
City of Spruce Grove	Invitation accepted; first TWG meeting pending.	Anticipated Q4 2017
Town of Edson	Invitation accepted; municipality has indicated there are no outstanding issues at this time; first TWG meeting pending.	To be determined
Town of Hinton	Invitation accepted; municipality has indicated there are no outstanding issues at this time.	To be determined
Town of Stony Plain	Invitation accepted; first TWG meeting pending.	Anticipated Q4 2017
Village of Wabamun	Invitation accepted; first TWG meeting pending.	Anticipated Q4 2017

To date, attendees at TWGs have included Trans Mountain’s senior Project leadership, senior municipal staff and, in some cases, elected municipal officials. As TWG meetings progress in many communities, the topics and subsequent meeting agendas continue to evolve. Trans Mountain brings a variety of representatives and subject matter experts to meetings based on agreed upon topics and issues to be addressed on an issue by issue basis. While the Vice President, TMEP offers to attend the initial TWG meeting for each stakeholder and subsequent meetings as appropriate, the Director, Engineering and the Director for each individual construction spread have been designated to attend and lead TWG meetings on behalf of the Vice President. Trans Mountain commits to ensuring it has a decision maker at each meeting who is authorized to make decisions and commitments regarding the matters to be discussed.

Trans Mountain has initiated introductions between its Engineering, Procurement and Construction Contractor (EPC) and General Construction Contractor (GCC) and municipalities for Spreads 7 and Spreads 1-6, respectively, during the reporting period. Conversations with subject matter experts in Engineering, Land, Permitting, Construction, Traffic Management, Environment, Security and Stakeholder Engagement continue as needed. Some sub technical working groups (SWGs) have been formed within a TWG to address specific technical matters with subject matter experts as required. An updated list of key TWG contacts is included in Table 2, below.

TABLE 2
TWG CONTACTS BY COMMUNITY

Municipality (BC)	Trans Mountain TWG key contacts	Municipal TWG key contacts
City of Abbotsford	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 5A (BC Interior) and Spread 6 (Fraser Valley) Regional Specialist, Stakeholder Engagement	Manager Development Engineering
City of Burnaby	Project Director, Lower Mainland, TMEP Project Manager, Spread 7 (Lower Mainland), TMEP Senior Regional Specialist, Stakeholder Engagement	Director, Engineering Director, Planning
City of Chilliwack	Senior Director, Trans Mountain Expansion Project Director, Engineering, TMEP Project Manager, Spread 5A (BC Interior) and Spread 6 (Fraser Valley) Regional Specialist, Stakeholder Engagement	Deputy Director, Engineering
City of Coquitlam	Project Director, Lower Mainland, TMEP Project Manager, Spread 7 (Lower Mainland), TMEP Regional Specialist, Stakeholder Engagement	Manager, Design & Construction and Executive Sponsor Manager, Capital Projects and Inspections Project Coordinator, Infrastructure Management
City of Kamloops	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 5A (BC Interior) and Spread 6 (Fraser Valley) Regional Specialist, Stakeholder Engagement	Director, Public Works and Utilities
City of Merritt	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 5A (BC Interior) and Spread 6 (Fraser Valley) Regional Specialist, Stakeholder Engagement	Chief Administrative Officer
City of Surrey	Project Director, Lower Mainland, TMEP	Manager, Drainage

	Regional Specialist, Stakeholder Engagement	City of Surrey legal counsel (as determined by the City)
District of Clearwater	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 3 (Fraser-Fort George) and Spread 4 (North Thompson) Regional Specialist, Stakeholder Engagement	Chief Administrative Officer
District of Hope	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 5B (Coquihalla-Hope) Regional Specialist, Stakeholder Engagement	Chief Administrative Officer and Director, Operations
Fraser Valley Regional District	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 5A (BC Interior) and 6 (Fraser Valley) Regional Specialist, Stakeholder Engagement	Manager, Strategic Planning
Metro Vancouver	Project Director, Lower Mainland, TMEP Project Manager, Spread 7 (Lower Mainland), TMEP Senior Regional Specialist, Stakeholder Engagement	Director, Air Quality and Environment
Regional District of Fraser Fort George	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 3 (Fraser-Fort George) and Spread 4 (North Thompson) Regional Specialist, Stakeholder Engagement	Director of Planning Services
Thompson Nicola Regional District, representing: Community of Avola Community of Blue River Community of Little Fort Community of Vavenby	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 3 (Fraser-Fort George) and Spread 4 (North Thompson) Regional Specialist, Stakeholder Engagement	Chief Administrative Officer

Township of Langley	Senior Director, Trans Mountain Expansion Project Project Director, Lower Mainland, TMEP Regional Specialist, Stakeholder Engagement	Director, Public Works and Executive Sponsor Manager, Engineering & Construction Services
Village of Valemount	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 3 (Fraser-Fort George) and Spread 4 (North Thompson) Regional Specialist, Stakeholder Engagement	Chief Administrative Officer

Municipality (AB)	Trans Mountain TWG contacts	Municipal TWG contacts
City of Edmonton	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Oil and Gas Liaison
City of Spruce Grove	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Director, Engineering Services
Parkland County	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Land Agent / Utilities Officer
Strathcona County	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Supervisor, Right-of-Way Management.
Town of Edson	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead)	Chief Administrative Officer

	Regional Specialist, Stakeholder Engagement	
Town of Hinton	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Chief Administrative Officer
Town of Stony Plain	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Town Manager
Village of Wabamun	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Chief Administrative Officer
Yellowhead County	Senior Director, Trans Mountain Expansion Project Project Manager, Spread 1 (Edmonton) and Spread 2 (Yellowhead) Regional Specialist, Stakeholder Engagement	Planning and Development Manager

2.0 FEEDBACK REGARDING THE TERMS OF REFERENCE

Since filing submissions pursuant to Conditions 14 (A81760) and 49 (A82625), Trans Mountain has incorporated general feedback from municipalities regarding the draft Terms of Reference (ToR) originally presented in Q4 2016, and has reached agreement on the ToR with most municipalities along the Project corridor. Municipality-specific ToR have also been finalized in BC with the following municipalities: City of Abbotsford, City of Burnaby, City of Chilliwack, City of Coquitlam, District of Hope, Fraser Valley Regional District and the Township of Langley. Copies of the ToRs finalized during this reporting period can be found in Appendix A.

Trans Mountain continues to review and discuss additional feedback regarding draft ToR specific with two remaining municipalities (City of Surrey and Metro Vancouver Regional District) and will make every effort to reach agreed upon terms with these municipalities. Trans Mountain will file the agreed upon ToR for the remaining two municipalities once these specific terms are finalized as part of future submissions pursuant to Condition 49. The status of the outstanding municipality-specific ToR are included below in Table 3.1. Additional feedback received by Trans Mountain related to the outstanding municipality-specific ToR since the last report are included in Table 3.2.

TABLE 3.1
STATUS OF OUTSTANDING MUNICIPALITY-SPECIFIC TOR

Municipality	Status
City of Surrey	<p>A revised draft ToR was presented to the City of Surrey on May 26, 2017 and as of September 30, 2017, Trans Mountain has not received any specific feedback from the City of Surrey.</p> <p>In an effort to continue to address concerns and resolve outstanding issues, the City of Surrey suggested TWG meetings proceed in the current format without finalized terms. Trans Mountain agrees to continue TWG meetings and follow the current TWG format laid out in the draft ToR. Trans Mountain will revisit the ToRs with the City of Surrey once the NEB has ruled on the plan, profile and book of reference for the section of the Project detailed route through Surrey . Trans Mountain will revisit the ToR with the City in Q1 2018.</p>
Metro Vancouver Regional District	<p>Trans Mountain continue to discuss the ToR with Metro Vancouver Regional District. Trans Mountain will provide an update in the next Condition 49 filing.</p>

TABLE 3.2
ADDITIONAL FEEDBACK REGARDING THE OUTSTANDING MUNICIPALITY-SPECIFIC TOR
BETWEEN APRIL 1, 2017 AND SEPTEMBER 30, 2017

Municipality	Feedback	Trans Mountain Response
City of Surrey	A revised draft ToR was presented to the City of Surrey on May 26, 2017 and Trans Mountain has not received any specific feedback from the City of Surrey since then. In an effort to continue to address concerns and resolve outstanding issues, the City of Surrey suggested TWG meetings proceed in the current format without finalized terms.	Trans Mountain agrees to continue TWG meetings and follow the current TWG format laid out in the draft ToR. Trans Mountain remains committed to working with the City of Surrey to resolve any outstanding concerns to the extent practical. Discussions with the City of Surrey will continue and appropriate TMEP/Kinder Morgan experts will attend future TWGs as necessary.
Metro Vancouver Regional District	Metro Vancouver request to have ‘without prejudice’ TWG discussions.	Given NEB requirement to report on TWG outcomes (Condition 14 & 49), Trans Mountain is unable to agree to without prejudice TWG discussions.
Metro Vancouver Regional District	<p>Revisions to the draft TOR continue based on feedback received from Metro Vancouver, including:</p> <ul style="list-style-type: none"> • suggested wording for TWG Scope & Mandate regarding Operations • addition of Regional Parks & Air Quality to SWG meetings list to reflect list of issues specific meetings proposed by Carol Mason, Metro Vancouver CAO in her letter of December 21, 2016 	<p>Trans Mountain is committed to working with Metro Vancouver through TWGs on any outstanding issues and concerns related to Project construction.</p> <p>Trans Mountain agrees with the addition of Regional Parks & Air Quality to the SWG meetings list. Trans Mountain addressed the scope and mandate regarding Operations in a TWG meeting on June 28, 2017 explaining TWGs are for TMEP construction activities and as such the subject matter experts related to Operations are not included within the meeting. Should discussions regarding Operations topics be required, TWG participants from Trans Mountain will be pleased to make arrangements for KMC</p>

		<p>Operations to attend.</p> <p>Trans Mountain will continue to discuss the ToR with Metro Vancouver Regional District at upcoming TWG meetings and aim to conclude in Q4 2017. Trans Mountain will provide an update in the next Condition 49 filing.</p>
Metro Vancouver Regional District	<p>Metro Van raised an issue with Trans Mountain’s Document Control process. Staff are unable to review/comment on meeting summaries issued by Document Control.</p>	<p>Concern has been noted and Trans Mountain is working to find a solution. In the interim, Trans Mountain will share meeting summaries by email for review and comment by external meeting participants. Trans Mountain expects to have a solution with Document Control in place in Q4 2017.</p>
Metro Vancouver Regional District	<p>The TWG group agreed to revise the TORs to refer to SWG groups and provide more content related to their intent.</p>	<p>Trans Mountain confirmed that SWGs will be less formal in format however will record action items and issues. Relevant activities will be recorded on the Rolling Action Plan (RAP). The RAP will be reviewed as a regular agenda item at the TWG meetings. If resolution is required from SWG meeting, it will be brought to the TWG meeting for resolution. TMEP confirmed that where disagreement occurs, this will be noted for the record.</p>

3.0 TWG MEETINGS AND ACTIVITIES

Table 4 lists the methods, dates and locations of TWG activities that have taken place in this reporting period.

TABLE 4
METHODS, DATES AND LOCATIONS OF TWG ACTIVITIES

TWG	METHOD	DATE	LOCATION
City of Burnaby ¹	Pre-TWG Meeting	April 4, 2017	City of Burnaby municipal office
City of Coquitlam	Meeting (Utility and Traffic SWG)	April 18, 2017	City of Coquitlam municipal office
Township of Langley	Meeting	May 1, 2017	Township of Langley operations centre
City of Burnaby	Pre-TWG Meeting	May 3, 2017	City of Burnaby municipal office
Metro Vancouver Regional District	Meeting	May 4, 2017	Metro Vancouver office
City of Chilliwack	Meeting	May 15, 2017	City of Chilliwack municipal office
Fraser Valley Regional District	Meeting	May 15, 2017	FVRD office
District of Hope	Meeting	May 16, 2017	District of Hope municipal office
City of Coquitlam	Meeting	May 16, 2017	City of Coquitlam Austin Works Yard
Metro Vancouver Regional District	Meeting (Access – Land SWG)	May 17, 2017	Metro Vancouver office
City of Chilliwack	Meeting	May 19, 2017	City of Chilliwack municipal office
Township of Langley	Meeting	May 24, 2017	Township of Langley operations centre
Metro Vancouver Regional District	Meeting (Crossings – Water Services SWG)	May 26, 2017	Metro Vancouver offices
City of Abbotsford	Meeting	May 31, 2017	City of Abbotsford municipal office
City of Coquitlam	Meeting (Traffic SWG)	June 5, 2017	City of Coquitlam municipal office

¹ At the City of Burnaby’s request, meetings prior to the ToR being finalized on September 21, 2017 are considered pre-TWG meetings

Township of Langley	Meeting (Environment SWG)	June 6, 2017	Township of Langley operations centre
City of Surrey	Meeting	June 7, 2017	City of Surrey municipal office
Metro Vancouver Regional District	Meeting (Crossings – Water Services SWG)	June 15, 2017	Metro Vancouver offices
Strathcona County	Meeting	June 19, 2017	Strathcona County Hall
Parkland County	Meeting	June 19, 2017	Parkland County Office
Metro Vancouver Regional District	Meeting (Crossings – Liquid Waste SWG)	June 19, 2017	Metro Vancouver offices
Township of Langley	Meeting (Utilities and Traffic SWG)	June 26, 2017	Township of Langley operations centre
City of Burnaby	Pre-TWG Meeting	June 27, 2017	City of Burnaby municipal office
City of Surrey	Meeting (Traffic and Utility SWG)	June 28, 2017	City of Surrey municipal office
Metro Vancouver Regional District	Meeting	June 28, 2017	Metro Vancouver office
Thompson-Nicola Regional District (TNRD)	Meeting	June 28, 2017	TNRD office
Metro Vancouver Regional District	Meeting (Crossings – Liquid Service SWG)	June 29, 2017	Metro Vancouver office
City of Burnaby	Pre-TWG Meeting	July 5, 2017	City of Burnaby municipal office
Fraser Valley Regional District	Meeting	July 6, 2017	Fraser Valley Regional District Office
City of Burnaby	Meeting (Emergency Management SWG)	July 6, 2017	City of Burnaby municipal office
City of Coquitlam	Meeting	July 18 2017	City of Coquitlam municipal office
Township of Langley	Meeting (Traffic SWG)	July 19, 2017	Township of Langley operations centre
City of Surrey	Meeting (Traffic SWG)	July 19 2017	City of Surrey municipal office
Regional District of Fraser Fort George (RDFFG); Village of Valemout	Conference call	July 19, 2017	n/a
Village of Valemout	Temporary work site visit	July 25, 2017	Village of Valemout Office

Township of Langley	Meeting (Permitting SWG)	July 25, 2017	Township of Langley operations centre
Metro Vancouver Regional District	Meeting	July 26, 2017	Metro Vancouver office
City of Burnaby	Pre-TWG Meeting	July 27, 2017	City of Burnaby municipal office
Township of Langley	Meeting	July 24, 2017	Township of Langley operations centre
City of Surrey	Meeting (Environment Subgroup)	August 3, 2017	City of Surrey municipal office
City of Burnaby	Meeting (Emergency Management SWG)	August 15, 2017	City of Burnaby municipal office
Township of Langley	Meeting	August 28, 2017	Township of Langley Civic Facility
City of Coquitlam	Meeting (Environment SWG)	August 29, 2017	Site tour, Coquitlam
Yellowhead County	Meeting	September 6, 2017	Yellowhead County Administration Office
City of Burnaby	Pre-TWG Meeting	September 6, 2017	City of Burnaby municipal office
City of Surrey	Meeting	September 12, 2017	City of Surrey municipal office
City of Coquitlam	Meeting	September 12, 2017	City of Coquitlam municipal office
Metro Vancouver Regional District	Meeting	September 13, 2017	Metro Vancouver office
City of Burnaby	Meeting (Emergency Management SWG)	September 13, 2017	City of Burnaby municipal office
Metro Vancouver Regional District	Meeting (Crossings – Solid & Liquid Waste SWG)	September 19, 2017	Metro Vancouver office
City of Surrey	Meeting (Environment SWG)	September 26, 2017	City of Surrey municipal office
City of Burnaby	Meeting (SWG)	September 28, 2017	City of Burnaby municipal office

4.0 ISSUES AND CONCERNS

As described in Trans Mountain’s filing of Condition 14 (A81760) and Condition 49 (A82625), municipalities have raised a variety of Project topics and issues through the regulatory process and through their ongoing engagement with Trans Mountain. As TWGs are established and progressing with most municipalities, Trans Mountain continues to address specific technical and construction concerns and issues with each individual municipality where TWGs have been formed.

Tables 5.1 and 5.2 provide a status update on a summary of issues and concerns raised by municipalities in BC and Alberta between October 1, 2016 and March 31, 2017. Tables 6.1 and 6.2 summarize new issues and concerns raised by municipalities in BC and Alberta during this reporting period with the exception of the City of Chilliwack; as of September 30, 2017, Trans Mountain has received no feedback from the City of Chilliwack regarding the most recent meeting summary (dated May 15, 2017) for this TWG. Summaries for the nine meetings that took place in September 2017 are also pending feedback and not yet finalized. Trans Mountain will report on the issues and outcomes from the City of Chilliwack May 15, 2017 TWG and all September TWG meetings in the next Condition 49 Report.

These tables include outcomes and measures to be implemented to address the issues and concerns raised. Trans Mountain continues to review these issues with municipalities and will update the table as part of ongoing TWG engagement to be reported in future Condition 49 submissions. Future filings will also indicate when Trans Mountain and municipalities determine issues are resolved, or if they remain unresolved and no future actions are anticipated, a rationale for why no further measures will be taken.

TABLE 5.1
UPDATE ON ISSUES AND CONCERNS RAISED BY MUNICIPALITIES IN BC
BETWEEN OCTOBER 1, 2016 AND MARCH 31, 2017

In the status column where issues and or concerns are Out of Scope for the TWGs this has been indicated. These issues and or concerns are however addressed through other channels.

Municipality	Issue/Concern	Response/Outcome	Status
City of Abbotsford	An appropriate Communication Plan be in place during construction to ensure that the City does not shoulder the burden of fielding questions and complaints from the public.	Topic for a future TWG meeting; prior to construction commencement.	In progress. At a TWG meeting on May 31, 2017 Trans Mountain confirmed the intention to share the TMEP Communications and Notification Plan with the City when available. Trans Mountain expects to have this plan ready to share in Q4 2017.
City of Abbotsford	Location, placement, and number of remote mainline block valves, enabling the shut off portions of the pipeline to reduce the impact of a spill.	Information on the proposed valve locations (NEB Condition 17) and an updated Risk Assessment for the City of Abbotsford was presented at a TWG meeting on March 7, 2017. The City did not have any issues or concerns with the information presented.	Complete.
City of Abbotsford	Delay and expense to the City associated with the pipeline crossing of municipal infrastructure. Cost recovery for impacts to the City's linear existing and future infrastructure that intersects with the pipeline in the City's road right-of-ways.	Trans Mountain has stated that it is not Trans Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of a net loss, Trans Mountain will meet and discuss upstanding concerns or costs. This applies to both the existing TMPL and the Project. Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to Kinder Morgan	The concern does not relate to a technical issue. Out of scope of the TWG.

Municipality	Issue/Concern	Response/Outcome	Status
		Canada Operations.	
City of Abbotsford	Failure to provide pertinent details it has within its knowledge in order to enable the City to understand the impacts and provide feedback to TMEP and the NEB with respect to Sumas River and Sumas Lake Canal crossings as well as Sandy Hill neighbourhood feasibility of trenchless construction.	<p>Topic for future TWG meeting.</p> <p>Trans Mountain has actively engaged the City of Abbotsford staff through TWG meetings in which timelines and content of detailed design have been discussed. Trans Mountain has supplied alignment sheets and reviewed details of routing through Abbotsford, discussing details of every segment of the proposed pipe including the schedules for geotechnical investigations, detailed designs and construction. It is Trans Mountain's intent that TWG meetings will continue and Trans Mountain will continue to share new information as it becomes available, including information about construction schedules and execution plans.</p>	Complete.
City of Abbotsford	Culverting Line 1 for ease of ditch cleaning.	<p>Trans Mountain will pass this concern on to KMC. This is out of scope for the TWG mandate.</p> <p>Trans Mountain has committed to providing a written response to the City with respect to this outstanding concern.</p>	<p>Out of scope of the TWG.</p> <p>Trans Mountain has referred this issue to KMC Operations, who will submit a letter to the City detailing it's response to this request.</p>
City of Abbotsford	Management of the use of storm water retention pond for HDD under the Sandy Hill area, i.e., access, staff parking, noise, abatement, site security, operation of storm water retention pond during storm events.	Trans Mountain confirmed temporary workspace will be next to the storm water retention pond; Trans Mountain would not be in the storm pond berms. In the event of a storm, Trans Mountain would remove equipment from the area.	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
City of Abbotsford	The design of the crossing at Gladwin Road and making provisions for a future 1200 diameter water main crossing of the TMEP pipeline.	Trans Mountain will pass this concern on to KMC. This is out of scope for the TWG mandate.	Out of scope of the TWG.
City of Abbotsford	Site verification of underground utilities (water, sewer, drainage) at pipeline crossings. Past discussions indicated that hydro-vac would be used to determine the horizontal and vertical location of these facilities. City's understanding is that this work is going to be done by the pipeline contractor during the construction period.	This is required by TMEP procedures as part of One Call notification. Trans Mountain has confirmed that any crossing of existing infrastructure requires site verification by the contractor. TMEP will complete utility verification in accordance with requirements as specified in crossing agreements.	Complete.
City of Abbotsford	City-hired inspector during the construction period to monitor general progress, liaison with our engineering operations and city communication staff.	Topic for a future TWG meeting.	Complete. Topic was discussed at a TWG meeting on May 31, 2017. The City confirmed that it will be allocating one full time inspector to Trans Mountain. City requested clarification from Trans Mountain on expectations. Trans Mountain confirmed that anytime City's infrastructure is exposed due to the Project that Trans Mountain would expect a City inspector to be present. City would receive notification through the One Call system.
City of Abbotsford	Crossing agreements.	Topic for a future TWG meeting.	In progress. Municipal permits were discussed at the May 31, 2017 TWG meeting and have been identified as a future agenda topic. Trans Mountain confirmed the expectation of 107 crossings within Abbotsford to include all road crossings and City owned infrastructure. Trans Mountain confirmed all utility owner crossing applications will be made directly to the respective utility owner. Trans Mountain submitted utility crossing drawings to the City of Abbotsford for 87 crossings on June 15, 2017 and a response from the City is pending. The remaining drawings are in

Municipality	Issue/Concern	Response/Outcome	Status
			development and Trans Mountain expects these will be submitted to the City in Q4 2017.
City of Abbotsford	Permitting: highway use and/or excavation, oversized vehicles, hydrant use, tree cutting, soil removal.	Topic for a future TWG meeting.	In progress. Municipal permits were discussed at a TWG meeting on May 31, 2017. Trans Mountain confirmed intent to comply with municipal permits. A number of permits have been identified that Trans Mountain believes would be required from the City. Trans Mountain confirmed that it does not believe any development permits are required. Trans Mountain will continue to discuss permitting with the City at future TWG and SWG meetings in Q1 2018. New issues raised during this reporting period on this topic are captured in Table 6.1 below.
City of Abbotsford	Culverting agricultural ditch crossings by the pipeline.	This concern is aligned with culverting of Line 1. As this concern also impacts other municipalities, Trans Mountain will review internally for issue resolution with respect to constructing TMEP.	In progress. Trans Mountain expect to resolve this issue in Q1 2018.
City of Abbotsford	Finalization of pipeline design crossing of the JAMES Trunk Sewer (existing and future twinning).	Topic for a future TWG meeting.	In progress. Topic for future TWG meetings in Q1 2018.
City of Burnaby	The Project has not garnered the necessary community support.	The objective of TWG meetings is to exchange technical information and resolve technical issues related to the TMEP. While TWG activities and outcomes may assist with improving community support, that is not their principal objective.	The concern does not relate to a technical issue. Out of scope of the TWG.
City of Burnaby	Impacts to community infrastructure and ongoing operation, as well as the costs associated with this; economic impacts to businesses affected by construction; costs incurred to municipality in the event of a spill.	Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, including ongoing engagement on Emergency Response Plans (ERP) and directly with neighbours (including businesses) to share information and seek input to our detailed construction plans to minimize impact to neighbours during construction. Trans Mountain has stated that it is not Trans	The concern does not relate to a technical issue. Out of scope for the TWG.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Mountain’s intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain will meet and discuss outstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to KMC Operations.</p>	
City of Burnaby	<p>Increased risk and consequences of spills and accidents as a result of the Project, including Westridge Marine Terminal.</p> <p>Increased risk and consequence of a marine spill with the Project; the financial, environmental and health impacts of a spill to the community.</p>	<p>Trans Mountain is committed to meeting NEB Condition 129 and NEB Condition 133.</p> <p>Trans Mountain has and will continue to invite City of Burnaby First Responders to participate in its Emergency Response engagement, training and exercises.</p>	In progress. Ongoing topic for future TWG and SWG meetings Q4 2017 – Q1 2018.
City of Burnaby	The ability for TMEP to respond in a timely manner and have the appropriate resources to respond to a pipeline incident.	<p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, including ongoing engagement on ERPs to share information and seek input.</p> <p>Trans Mountain has and will continue to invite City of Burnaby First Responders to participate in its Emergency Response engagement activities, training and exercises.</p>	In progress. Ongoing topic for future TWG and SWG meetings Q4 2017 – Q1 2018.
City of Burnaby	Risks associated with operational air emissions at Westridge Marine Terminal.	Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, to share information and seek	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>input.</p> <p>Trans Mountain's draft Environmental Protection Plans (EPP) have been and are being posted in phases on its website for comment. Stakeholders are invited to provide their feedback through the website and TWG discussions during the consultation window for each plan. The Westridge Marine Terminal Air Emissions Management Plan was available for consultation between November 22, 2016 and February 24, 2017. Burnaby was notified about the opportunity to provide input to this plan by email on September 23, 2016 and reminded again about this opportunity on December 12, 2016. Trans Mountain provided an overview of its Westridge Marine Terminal Facilities Emissions Management Plan and Air Emissions Management Plan at the July 27, 2017 pre-TWG meeting.</p>	
City of Burnaby	Impacts and risks of additional tanks at Burnaby Terminal.	<p>Topic for a future TWG meeting.</p> <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, to share information and seek input.</p>	In progress. Topic for future TWG meetings in Q1 2018.
City of Burnaby	Increased tanker traffic in Burrard Inlet; tanker traffic will increase "wave wash," which impacts marine invertebrates, and could cause impacts to rivers at the mouth of Burrard Inlet that are crucial for migrating salmon, including the Capilano, Seymour and	<p>The Vancouver Fraser Port Authority Information Guide dictates speeds for which vessels travel in the Port Area. It is available on the Port's website:</p> <p>http://www.portvancouver.com/marine-operations/</p>	<p>The concern does not relate to a technical issue. Out of scope for the TWG.</p> <p>Trans Mountain has notified the Vancouver Fraser Port Authority about this concern.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	Indian Rivers.		
City of Burnaby	Trans Mountain will not follow local by-laws.	<p>Topic of conversation for a future TWG meeting.</p> <p>Trans Mountain intends to comply with the intent of local bylaws to extent practical.</p> <p>Trans Mountain requests a list of applicable bylaws related to TMEP.</p>	<p>In progress.</p> <p>Trans Mountain intends to comply with the intent of local bylaws to extent practical.</p> <p>On May 31, 2017 Trans Mountain applied for four Permit Applications (PPAs) from the City of Burnaby:</p> <ul style="list-style-type: none"> • Construction at Westridge Marine Terminal • Construction at Burnaby Terminal • Temporary infrastructure site at Kask Brothers • Relocates of existing infrastructure at Burnaby Terminal <p>Trans Mountain notes that the City of Burnaby officially recorded receipt of these four PPAs between June 16 – June 27, 2017.</p>
City of Burnaby	Construction impacts to recreational use areas including land base areas and Burrard Inlet.	<p>Topic for future a TWG meeting.</p> <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, to share information and seek input, including to recreational user groups and parks managers as detailed construction plans are developed; to minimize impacts and determine best methods to communicate to recreation users during construction.</p>	<p>In progress.</p> <p>Regarding land base areas, City of Burnaby has indicated that they will engage on this topic once the NEB has ruled on the plan, profile and book of reference for this section of the Project detailed route. Trans Mountain expects to have these conversations Q1 2018.</p>
City of Burnaby	Operational impacts to protected species in Burnaby parks and conservation areas.	<p>Topic for future a TWG meeting.</p> <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the Project, to share information and seek input.</p> <p>Trans Mountain's draft environmental management plans are being posted in phases on its website for comment. Stakeholders are</p>	<p>In progress. Topic for future TWG meetings in Q1 2018.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		<p>invited to provide their feedback through the website and TWG discussion during the consultation window for each plan.</p> <p>Burnaby was notified about the opportunity to provide input to Trans Mountain's draft environmental management plans by email on September 23, 2016 and reminded again about this opportunity on December 12, 2016. Trans Mountain offered to meet to review plans.</p>	
City of Burnaby	<p>These areas include fish-bearing waterways or conservation areas that are important for the habitat of migrating salmon, as well as Nooksack Dace and Cutthroat Trout; noise impacts to marine wildlife due to dredging and construction; and impacts to wildlife such as the Killer Whale, Great Blue Heron, and migratory birds.</p>	<p>Trans Mountain has a long history of investing in conservation efforts. Trans Mountain has sponsored a study by Bird Studies Canada to map bird populations in the Burrard Inlet to quantify and map seasonal bird populations. The maps will be made publicly available so that local stakeholders, such as industry, government and environmental organizations can use the information in planning for the appropriate conservation and protection of marine birds.</p> <p>In January 2015, Trans Mountain contributed \$50,000 to the Pacific Salmon Foundation in response to stakeholder feedback and input from Aboriginal groups identifying salmon habitat as a priority for Burrard Inlet. The funding will be used for salmon habitat enhancement in Burrard Inlet, which is expected to improve foraging opportunities for piscivorous marine birds inhabiting Burrard Inlet.</p> <p>Trans Mountain and the Kinder Morgan Foundation continue to field requests from conservation organizations to help with habitat restoration and education initiatives.</p>	<p>In progress.</p> <p>Trans Mountain reviewed stream crossing methods in Burnaby at the September 6, 2017 pre-TWG meeting and discussed concerns raised by the City of Burnaby. Trans Mountain will continue to work with the City of Burnaby to address issues related to this concern.</p> <p>On July 27, 2017 the Pacific Salmon Foundation (PSF) and Trans Mountain announced measures that will be introduced by the company in the protection of wild Pacific salmon. Trans Mountain has signed a Memorandum of Understanding (MOU) with PSF for multi-year salmon programs, including a third-party assessment by PSF of Trans Mountain's construction across sensitive salmon-bearing watercourses in British Columbia. The agreement provides \$2.5 million in funding to support grants to community groups for salmon conservation, coastal research, and post-secondary education bursary program and up to \$500,000 for the third-party construction assessment.</p>

Municipality	Issue/Concern	Response/Outcome	Status
City of Burnaby	<p>Trans Mountain has failed to meaningfully consult with Burnaby between December 15, 2016 and February 20, 2017; and specifically related to filings relating to Conditions 21, 22, 24, 26, 27, 28, 29, 33, 34, 127B.</p>	<p>A response was filed with the NEB from Osler (on behalf of Trans Mountain) on March 24, 2017 which stated:</p> <ul style="list-style-type: none"> • Trans Mountain rejects the assertion that it failed to meaningfully consult with Burnaby in this timeframe • Burnaby withdrew from discussions regarding the Project in 2013 on the basis that is preferred to deal with matters of concern through a ‘formal’ process (NEB process/the courts). Since that time, Trans Mountain has continued to provide Burnaby with timely information regarding the Project and has sought Burnaby’s feedback on various Project-related reports • In the past six months, Trans Mountain has sought input from Burnaby on topics including environmental plans, TWGs; invited the City to participate in a construction planning workshop and an information session; as well as Emergency Management Project-related matters. • Trans Mountain remains open and willing to receive input from Burnaby and to meet to discuss Project-related matters • Trans Mountain and the City met on December 15, 2016 and are planning a TWG meeting on April 4, 2017. <p>Filings related to Project Conditions 21, 22, 24, 26, 27, 28, 29, 33, 34 and 127B do not require consultation with appropriate government</p>	<p>In progress.</p> <p>Trans Mountain will continue to engage through regular TWG meetings on topics according to ToR</p> <p>Trans Mountain will continue to share information related to regulatory submissions with the City of Burnaby.</p> <p>In relation to Trans Mountain’s Variance Application and compliance filings pursuant to Conditions 22 and 24 of the NEB Order, Osler (on behalf of Trans Mountain) filed a response to the Letter of Comment from the City of Burnaby dated June 30, 2017 (A84741) with the NEB on July 14, 2017 (A84954) . A copy of this letter is located in Appendix B.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		authorities in advance of filing.	
City of Chilliwack	Sardis-Vedder Aquifer protection.	<p>Ongoing TWG meeting topic.</p> <p>Please see Appendix C of Section 21 Chilliwack route re-alignment application (A82269) for documentation related to City's concerns and Trans Mountain's responses.</p>	In progress. Topic for future TWG meetings in Q1 2018.
City of Chilliwack	Municipal costs.	<p>Trans Mountain has stated that it is not Trans Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of a net loss, Trans Mountain will meet and discuss upstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to Kinder Morgan Canada Operations.</p>	This concern does not relate to a technical issue. Out of scope for TWGs.
City of Chilliwack	The City requests that the NEB add a condition that requires Trans Mountain to, at a minimum: develop and implement a Communication Plan in consultation with local governments that demonstrates how Trans Mountain will ensure that all public inquiries, complaints and concerns regarding construction and operations of the TMEP are directed to and handled by Trans Mountain, which includes the provision of a full-time Trans Mountain employee at the	Topic for a future TWG meeting.	In progress. Topic for future TWG meetings in Q1 2018.

Municipality	Issue/Concern	Response/Outcome	Status
	municipal City hall(s) where construction is underway to act as a resource for the public and point person for municipal employees.		
City of Chilliwack	Construction timing for Vedder River crossing.	<p>As indicated in its letter to the City of Chilliwack dated February 28, 2017, Trans Mountain is planning a trenchless crossing of the Vedder River using a crossing methodology called Direct Pipe. Trans Mountain plans to construct inside the Least Risk Window of August 1 to September 15 to avoid the critical spawning /incubation period for salmonids, including Salish Sucker, which have a spawning period of March 1 to July 1.</p> <p>A copy of the Letter can be found in Appendix C Part 1-11 of Trans Mountain's Section 21 Chilliwack route re-alignment application (A82269).</p>	Complete. Trans Mountain will continue to provide Project updates related to construction schedule at future TWG meetings.
City of Chilliwack	Commitments Tracking Table and ensuring commitments related to the Sardis-Vedder Aquifer are included in the version to be posted on the Trans Mountain website.	<p>Trans Mountain has filed NEB Condition 6 - Commitments Tracking Table.</p> <p>Commitments related to the aquifer are covered by overarching Condition 3 and therefore were not added to the Commitments Tracking Table when filed with the NEB and posted to the Trans Mountain website.</p>	Complete.
City of Chilliwack	Monitor groundwater data at monitoring well locations agreed upon by the City.	Groundwater Monitoring Program will be assessed as per requirements outlined in NEB Condition 130. Groundwater monitoring, if deemed appropriate, will be carried out during Project operations.	In progress. Topic for future TWG meetings in Q1 2018.
City of	Ensure that environmental monitor and water quality	The NEB is responsible for verifying and ensuring that Trans Mountain is in compliance	In progress. Topic for future TWG meetings in Q1 2018.

Municipality	Issue/Concern	Response/Outcome	Status
Chilliwack	resource specialists are independent of Trans Mountain.	<p>with NEB Conditions. For any questions or concerns about Trans Mountain’s Conditions compliance, please contact the National Energy Board at 1-800-899-1265.</p> <p>Environmental inspectors will be contracted to work on the project and will be experienced in linear or large scale construction projects. Water quality monitors will be experienced and will have professional qualifications or be under the direct supervision of a qualified professional. Third party and internal environmental audits will be conducted during construction to verify environmental resources are effective in protecting the environment and in compliance with conditions and commitments.</p>	
City of Chilliwack	Obtain baseline water quality data for hydrocarbons, heavy metals, nutrient loads and bacteria, and sediment quality prior to construction.	<p>A Groundwater Management Plan has been prepared as part of the Environmental Management Plans required for the Project. This plan outlines procedures for identifying groundwater related effects of the Project, provides criteria for implementing those procedures, reviews planned mitigation measures, and describes monitoring of groundwater quality and/or quantity. It also emphasizes protection of identified vulnerable aquifers along the proposed pipeline route.</p> <p>When construction is complete, field testing results will be available for comparison to results from pre-construction monitoring. Post-construction results will also be compared to Health Canada’s Guidelines for Canadian Drinking Water Quality.</p> <p>Trans Mountain has shared the draft Groundwater Management Plan along with a Technical Memo regarding the protection of</p>	In progress. Topic for future TWG meetings in Q1 2018.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>municipal water sources. Trans Mountain anticipates receiving feedback on these documents related to this topic at an upcoming TWG meeting.</p>	
<p>City of Chilliwack</p>	<p>Establish monitoring protocols in conjunction with the City for monitoring groundwater quality and quantity before, during and after construction and during operations.</p>	<p>A Groundwater Management Plan has been prepared as part of the Environmental Management Plans required for the Project. This plan outlines procedures for identifying groundwater related effects of the Project, provides criteria for implementing those procedures, reviews planned mitigation measures, and describes monitoring of groundwater quality and/or quantity. It also emphasizes protection of identified vulnerable aquifers along the proposed pipeline route.</p> <p>When construction is complete, field testing results will be available for comparison to results from pre-construction monitoring. Post-construction results will also be compared to Health Canada's Guidelines for Canadian Drinking Water Quality.</p> <p>Trans Mountain has shared the draft Groundwater Management Plan along with a Technical Memo regarding the protection of municipal water sources. Trans Mountain anticipates receiving feedback on these documents related to this topic at an upcoming TWG meeting.</p>	<p>In progress. Topic for future TWG meetings in Q1 2018.</p>
<p>City of Chilliwack</p>	<p>Establish a groundwater protection fund which can be utilized by local governments and First Nations reliant on groundwater aquifers to conduct research,</p>	<p>Trans Mountain will pass this concern on to KMC. This is out of scope for the TWG mandate.</p>	<p>Out of scope for TWGs.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	monitoring, protection measures, and community awareness programs on groundwater sustainability.		
City of Chilliwack	Require enhanced design, construction and spill prevention response standards for the portion of the pipeline which passes through groundwater aquifers and specifically, the Sardis-Vedder Aquifer. Groundwater crossings should be held to the same or higher standard as watercourse crossings.	Trans Mountain has addressed through Technical Memos dated May 26, 2015 and October 16, 2015. These memos are included in Appendix C Part 1-13 of Trans Mountain’s Section 21 Chilliwack route re-alignment application (A82269).	Complete.
City of Chilliwack	Require Trans Mountain to obtain the City’s input into the design considerations and spill prevention and response measures that will be put in place post-construction to ensure the full protection of the aquifer.	Trans Mountain has addressed through Technical Memos dated May 26, 2015 and October 16, 2015. These memos are included in Appendix C Part 1-13 of Trans Mountain’s Section 21 Chilliwack route re-alignment application (A82269). Trans Mountain will continue to respond to queries from the City through TWG discussions.	Complete.
City of Chilliwack	Use biodegradable hydraulic fluid in equipment during any construction activities that may impact groundwater.	Trans Mountain has committed to using biodegradable hydraulic fluid in machinery for the entire portion of the Project between Silverthorne Road (KP 1091.59) to Watson Road (KP 1094.19).	Complete.
City of Chilliwack	Draft Condition 80 (NEB Condition 94) is insufficient because it does not require Trans Mountain to test water well quality for baseline	NEB Condition 94 addresses groundwater monitoring and monitoring results. As per Township of Langley IR Response No 2 (A4J515) – motion to compel full and adequate response, Trans Mountain commits to pre-	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
	<p>indicator and during construction and operation to monitor for impacts.</p>	<p>construction sampling of water wells that are 10m deep or less within 150m of the right-of-way (RoW).</p> <p>The justification for baseline well testing was developed in the hydrogeological assessment provided as part of the Facilities Application OH-001-2014 (Application) (Filing ID A3S1U8). This baseline testing was intended to ensure pre-construction baseline data existed to judge whether any potential pipeline construction-related impact to neighbouring water wells occurred, should it be suspected during construction.</p> <p>The commitment to test and sample wells within 10m or less in depth is based on the rationale that during construction the impacts of the pipeline construction are unlikely to extend to greater depth. This commitment also allows baseline data to be collected for those closest and shallowest wells that may be susceptible to potential pipeline related issues in the future.</p>	
<p>City of Chilliwack</p>	<p>City requests site-specific Emergency Response Plan for Sardis-Vedder Aquifer.</p>	<p>NEB Condition 124 – Implementing Improvements to Trans Mountain’s Emergency Management Program (EMP) outlines requirements for site-specific plans and documents related to Geographic Response Plans, Geographic Response Strategies, control point mapping, tactical plans for submerged and sunken oil and tactical plans for high consequence areas. Trans Mountain will address this concern through its compliance with Condition 124.</p>	<p>Out of scope for TWGs. This concern has been addressed through NEB Condition 124.</p> <p>Trans Mountain’s emergency response plans are available on Trans Mountain and Kinder Morgan Canada’s websites:</p> <ul style="list-style-type: none"> • https://www.transmountain.com/emergency-response-plans • https://www.kindermorgan.com/pages/pipelinesafety/emergency_response_plans.aspx <p>As outlined in a letter to the City of Chilliwack dated May 1, 2017 (located in Appendix B), safety is our number one priority. KMC has a comprehensive emergency management program based on a combination of regulatory compliance, operational need, industry best practice, and lessons learned through regular exercises and actual incidents. The City of Chilliwack has participated in workshops and meetings to enhance our Emergency Management Program and was invited to attend an equipment deployment exercise on July 11 - 12, 2017 in the District of Hope as an</p>

Municipality	Issue/Concern	Response/Outcome	Status
			<p>observer.</p> <p>Engagement on our program is ongoing and Trans Mountain encourages the City of Chilliwack to continue to participate to ensure that the City’s feedback is considered. Trans Mountain would also be pleased to arrange an overview of its emergency response plan with an expert from its Emergency Management team for the City.</p>
City of Chilliwack	<p>Concerns over management of invasive plant species. Requests Draft Condition 53 (NEB Condition 45) include a requirement that Trans Mountain demonstrate how it developed the plan with input from local government.</p>	<p>NEB Condition 45 – Weed and Vegetation Management Plan has a consultation requirement with Appropriate Government Authorities, invasive plant councils or committees, potentially affected Aboriginal Groups and affected landowners/tenants. Trans Mountain must provide a description and justification for how Trans Mountain has incorporated the results of its consultation, including any recommendations from those consulted into the plan.</p> <p>Trans Mountain informed the City of draft Environmental Plans available on its website for review and comment, as well as offered the option to meet to discuss specific feedback from the City with respect to these plans in emails sent on September 23, 2016 and November 30, 2016.</p> <p>Trans Mountain did not receive a response from the City or a request to meet to discuss specific concerns related to the draft Weed and Vegetation Management Plan during the review and comment period.</p> <p>If the City would like to discuss the Weed and Vegetation Management Plan once it is filed with the NEB, including stakeholder feedback incorporated, Trans Mountain would be pleased to arrange a discussion with one of its technical</p>	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
		experts.	
City of Chilliwack	<p>Request Draft Condition 63 (NEB Condition 72) be amended to:</p> <p>include the requirement that Trans Mountain demonstrate how it has developed the plan in meaningful consultation with and input from local governments; require Trans Mountain to retain an independent third party monitor to ensure compliance with the plan and share the monitoring results with local governments; develop monitoring protocols and baseline measurements in conjunction with local governments.</p>	<p>NEB Condition 72 – Pipeline Environmental Protection Plan requires Trans Mountain to consult with Appropriate Government Authorities, potentially affected Aboriginal groups, and affected landowners/tenants. In its summary, Trans Mountain must provide a description and justification for how Trans Mountain has incorporated the results of its consultation, including any recommendations from those consulted into the plan.</p> <p>The Condition includes:</p> <ul style="list-style-type: none"> a) environmental procedures (including site-specific plans), criteria for implementing these procedures, mitigation measures, and monitoring applicable to all Project phases and activities b) policies and procedures for environmental training and the reporting structure for environmental management during construction, including the qualifications, roles, responsibilities, and decision-making authority for each job title identified in the updated EPP <p>Trans Mountain informed the City of draft Environmental Plans available on its website for review and comment, as well as offered the option to meet to discuss specific feedback from the City with respect to these plans in emails sent on September 23, 2016 and November 30, 2016.</p>	In progress. Trans Mountain continues to engage with the City of Chilliwack. Topic for future TWG meeting.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Trans Mountain did not receive a response from the City or a request to meet to discuss specific concerns related to the draft Pipeline Environmental Protection Plan during the review and comment period.</p> <p>If the City would like to discuss the Pipeline EPP once it is filed with the NEB, including stakeholder feedback incorporated, Trans Mountain would be pleased to arrange a meeting with one of its technical experts.</p>	
City of Chilliwack	<p>Request to amend Draft Condition 88 (NEB Condition 90) to: replace the word “communities” with “local governments”; require Trans Mountain to develop a Terms of Reference with each local government that establishes a mutually agreed protocol for “consultation” and mutual obligations; develop the Emergency Management Plan (EMP) and obtain approval of the EMP by the NEB before Project construction begins.</p>	<p>NEB Conditions refer to ‘Appropriate Government Authorities.’</p> <p>NEB Condition 14 requires Trans Mountain to develop ToR for Technical Working Groups.</p> <p>Trans Mountain’s Emergency Response Program is a comprehensive set of policies, procedures and processes designed to support our commitment of safety and security of the public, workers, company property, and the environment. Our current EMP includes Emergency Response Plans that are location specific and cover all current pipeline and associated facilities for the Trans Mountain pipeline system.</p> <p>Trans Mountain is committed to meeting NEB Condition 90 – Consultation on improvements to Trans Mountain’s Emergency Management Program, NEB Condition 124 – Implementing improvements to Trans Mountain’s Emergency Management Program.</p>	<p>In progress. The City of Chilliwack will continue to be invited to participate in all emergency management engagement and training relevant to the region.</p>
City of Chilliwack	<p>Request to amend Draft Condition 140 (NEB Condition 151): indicate how</p>	<p>Trans Mountain is committed to meeting NEB Condition 151 – Post-construction monitoring reports, which requires that Trans Mountain</p>	<p>Complete.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	<p>the NEB will determine the sufficiency of the proposed monitoring measures and schedule that Trans Mountain will implement to address ongoing issues and concerns.</p>	<p>consult with Appropriate Government Authorities, such as the City of Chilliwack, regarding environmental monitoring.</p> <p>The NEB is responsible for verifying and ensuring that Trans Mountain is in compliance with NEB Conditions. For any questions or concerns about Trans Mountain’s Conditions compliance, please contact the National Energy Board at 1-800-899-1265.</p>	
<p>City of Chilliwack</p>	<p>City requests that Trans Mountain: route the pipeline along the existing pipeline RoW. If this is not possible, then the City requests that Trans Mountain seek a new RoW that does not utilize existing road RoWs. The use of existing road RoWs for pipeline routing will result in long lasting and ongoing costs increases to the City for managing existing utilities. It would also have a similar effect on other utility operators in the existing road RoW, such as BC Hydro, Telus and Fortis; if the pipeline is routed through Balmoral Park, that Trans Mountain commit to installing the pipeline at a minimum depth of 1.5m;</p> <p>if the pipeline is routed through South Sumas Road,</p>	<p>Trans Mountain confirmed in its letter dated February 15, 2016 that it plans to route within its existing RoW.</p>	<p>Complete.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	develop a compensation plan for the property devaluation and disruption that property owners who front on this road will face, irrespective of whether these property owners will experience damages at law to their lots.		
City of Chilliwack	Include the requirement that Trans Mountain retain an independent, third party monitor for each of its monitoring programs; require Trans Mountain to develop a plan for how Trans Mountain will reimburse taxpayers for the financial impacts to local governments for extra staff time involved in coordinating and meeting with Trans Mountain to plan construction schedules, discuss mitigation measures, identify municipal infrastructure requirements, etc.	<p>The NEB is responsible for verifying and ensuring that Trans Mountain is in compliance with NEB Conditions. For any questions or concerns about Trans Mountain’s Conditions compliance, please contact the National Energy Board at 1-800-899-1265.</p> <p>Trans Mountain has stated that it is not Trans Mountain’s intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain will meet and discuss outstanding concerns or costs related to constructing TMEP.</p>	These financial concerns are not related to technical issues. Out of scope for TWGs
City of Chilliwack	City requests NEB amend Draft Condition 58 (NEB Condition 62) to: require that Trans Mountain seek local government feedback and coordinate with local governments when developing and implementing the	Trans Mountain will seek input into construction plans, including the schedule, through ongoing TWG discussions with the City.	<p>In progress. Topic for future TWG meetings in Q1 2018.</p> <p>Trans Mountain will abide by all requirements outlined by regulators. Trans Mountain will share ongoing Project updates including Construction schedules through TWG meetings.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	<p>construction schedule; require that Trans Mountain submit the construction schedule 60 days in advance to the local government in which it will be in that local government's jurisdiction.</p>		
<p>City of Chilliwack</p>	<p>City requests NEB to amend Draft Condition 61 (NEB Condition 73) to: include the requirement that Trans Mountain abide by local government bylaws pertaining to street and traffic and apply for highway use permits where applicable; submit a compensation plan which outlines how Trans Mountain will calculate its use of local government resources, staff time and first responders to administer its traffic closures and how it will compensate local governments for this time.</p>	<p>Wherever practical, Trans Mountain will work with provincial and municipal governments to ensure its project plans meet or exceed expectations outlined in applicable provincial regulations and municipal bylaws.</p> <p>Trans Mountain has stated that it is not Trans Mountain's intent to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain will meet and discuss outstanding concerns or costs.</p> <p>Trans Mountain will consult on draft Traffic Control Plan as part of NEB Condition 73 at an upcoming TWG meeting.</p>	<p>In progress. Traffic Management Plan was a topic discussed at a TWG Meeting on May 19, 2017. Discussions will continue at future meetings in Q1 2018.</p>
<p>City of Chilliwack</p>	<p>City requests NEB include a Condition that requires Trans Mountain to develop a Noise Management Plan for general construction noise (not solely from horizontal drilling) in residential areas, near schools, and in parks, and that Trans Mountain abide by local government</p>	<p>Trans Mountain will ensure the operation and testing for noise generating equipment meets local noise bylaws by designing and installing equipment with appropriate consideration of noise suppression. Additionally, testing for this type of equipment is normally done during regular working hours. Detailed mitigation measures for this equipment have not yet been determined as this will be done during the final</p>	<p>In progress. Traffic Management Plan was a topic discussed at a TWG Meeting on May 19, 2017. Discussions will continue at future meetings in Q1 2018.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	noise bylaws or else seek exemption permits from local governments for exceeding noise requirements.	<p>phase of detailed design and engineering work.</p> <p>In addition, Condition 74 requires site specific Horizontal Directional Drilling (HDD) Noise Management Plans to be filed 3 months prior to the commencement of construction of each HDD crossing.</p>	
City of Chilliwack	Concerns over management of invasive plant species. Requests Draft Condition 53 (NEB Condition 45) include a requirement that Trans Mountain demonstrate how it developed the plan with input from local government.	<p>NEB Condition 45 – Weed and Vegetation Management Plan requires Trans Mountain to consult with Appropriate Government Authorities, invasive plant councils or committees, potentially affected Aboriginal Groups and affected landowners/tenants. Trans Mountain must provide a description and justification for how Trans Mountain has incorporated the results of its consultation, including any recommendations from those consulted into the plan.</p> <p>Trans Mountain informed the City of draft Environmental Plans available on its website for review and comment, as well as offered the option to meet to discuss specific feedback from the City with respect to these plans in emails sent on September 23, 2016 and November 30, 2016.</p> <p>Trans Mountain did not receive a response from the City or a request to meet to discuss specific concerns related to the draft Weed and Vegetation Management Plan during the review and comment period.</p> <p>If the City would like to discuss the Weed and Vegetation Management Plan once it has been filed with the NEB, including stakeholder feedback incorporated, Trans Mountain will add</p>	<p>Complete.</p> <p>Trans Mountain remains open and willing to provide the City with an overview of the Weed and Vegetation Management Plan that was filed with the Board, including stakeholder feedback incorporated. Trans Mountain would add this topic to a future TWG agenda if the City expresses interest.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		this topic to a future TWG agenda.	
City of Chilliwack	City expressed concern over ensuring topics of importance were discussed. City would like to have road crossings, river crossings, and groundwater as standing agenda items.	To be included on future TWG agendas as required.	In progress. Crossing agreements were a topic discussed at a TWG Meeting on May 19, 2017.
City of Chilliwack	City requested Sardis-Vedder Aquifer be added to the Rolling Action Plan (formerly List of Outstanding Concerns).	Trans Mountain added this to the RAP to be shared with the City with each subsequent TWG meeting.	In progress. Ongoing topic for future TWG and SWG meetings Q4 2017 – Q1 2018.
City of Chilliwack	City expressed concern over ensuring proper documentation of meetings. Request for any documents shared at meetings to be included with meeting minutes along with agenda.	Trans Mountain agrees with this request and will incorporate this feedback into the ToR specific to the City of Chilliwack.	In progress. Ongoing topic for future TWG and SWG meetings Q4 2017 – Q1 2018.
City of Chilliwack	City expressed disappointment in the decision to not route in the BC Hydro (RoW) as the City felt it afforded additional aquifer protection, however City also confirmed its preference for a single pipeline corridor within the City.	Trans Mountain responded in a letter dated February 15, 2017.	Complete.
City of	City expressed concern that not all of the	Trans Mountain is currently preparing a formal	In progress. Trans Mountain will respond to the City of Chilliwack in Q1 2018.

Municipality	Issue/Concern	Response/Outcome	Status
Chilliwack	recommendations in its Letter of Comment, related to the aquifer were addressed in the Waterline Technical Memo shared with the City of Chilliwack.	response.	
City of Chilliwack	City expressed concern over wording in February 15, 2017 letter regarding routing and construction decisions for BC Hydro alternate corridor. City did not ask Trans Mountain to change construction methodology from HDD to Open Trench.	<p>Trans Mountain agrees that the City did not specially ask to switch construction methodology and amended the letter accordingly.</p> <p>A copy of the letter can be found in Appendix C of the Section 21 – Chilliwack route realignment application (A82269).</p>	Complete.
City of Chilliwack	<p>City requested information for a staff report on Mayor and Council on March 7, 2017 including:</p> <ul style="list-style-type: none"> • Information on why routing to Highway 1 is not feasible • Plain language document of impact of long term operations of pipeline on aquifer <p>Description of Vedder River crossing and Browne Creek Wetland.</p>	<p>Trans Mountain provided the requested information in two letters to the City dated February 15, 2017 and February 28, 2017.</p> <p>Copies of the letters can be found in Appendix C of the Section 21 – Chilliwack route realignment application (A82269).</p>	Complete.
City of Chilliwack	City requested the updated risk analysis for Chilliwack area.	Topic for future a TWG meeting.	Complete. Topic was discussed at a TWG meeting on May 15, 2017.

Municipality	Issue/Concern	Response/Outcome	Status
City of Coquitlam	Impacts of construction to wildlife and habitat, including species at risk, in Colony Farm Regional Park.	<p>Trans Mountain intends to avoid the use of Colony Farm land to the extent feasible. Refer to response to BC Nature Canada IR No. 2.41b (A4H7Y8).</p> <p>On several occasions, Trans Mountain has confirmed verbally and in writing with the City of Coquitlam (including by letter to Mayor Stewart on May 28, 2015) and other stakeholders, our commitment to use the Mayfair CP Rail siding as temporary workspace for the Fraser River trenchless crossing. As the design proceeds Trans Mountain will confirm access; however, Trans Mountain commits to restricting access to existing disturbed areas such as the rail siding or existing roadways.</p>	Complete.
City of Coquitlam	Environmental impacts of construction.	<p>Environmental management plans are a topic for TWG or TWG subgroup meetings.</p> <p>Trans Mountain established TWG and TWG sub groups with the City of Coquitlam to address specific topics of interest including environmental impacts.</p> <p>The City provided their feedback to the TMEP environment management plans available online and the feedback is being discussed through TWGs and environment subgroup meetings.</p>	<p>In progress.</p> <p>Trans Mountain and the Contractor discussed environment-related topics at TWG meetings on May 16, 2017, July 18, 2017, September 12, 2017 and at a SWG meeting/site tour on August 29, 2017.</p> <p>The City of Coquitlam is being provided any Condition filings related to environment plans as they are filed with the NEB. Discussions are underway about environment topics including Bear Smart plant species, tree management and design for culverts near the Port Mann compensation area to meet City of Coquitlam specifications (size and height/weight ratio).</p> <p>Ongoing topic for future TWG and SWG meetings.</p>
City of Coquitlam	Economic impacts to businesses affected by construction.	<p>Topic for future TWG or SWG meetings.</p> <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, including ongoing engagement with neighbours (including businesses) to share information and seek input to our detailed construction plans to minimize</p>	<p>In progress.</p> <p>Trans Mountain hosted an engagement event (coffee chat) for local businesses on August 30, 2017. Further outreach with the business community is planned for fall 2017 and in 2018 prior to construction.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		impact to neighbours during construction.	
City of Coquitlam	Road, and utility infrastructure costs the City would incur as a result of the proposed RoW.	<p>Trans Mountain has stated that it is Trans Mountain’s intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain will meet and discuss outstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>This topic is not part of the TWG mandate.</p>	<p>The concern does not relate to a technical issue. Out of scope for TWGs.</p> <p>As agreed upon in the Coquitlam TWG ToR, Trans Mountain is open to discussing topics outside the TWG scope in other forums, including the topics that remain outstanding as confirmed by the City of Coquitlam.</p>
City of Coquitlam	Construction impacts on municipal services such as fire/rescue.	<p>Topic for future TWG or TWG subgroup meetings.</p> <p>Trans Mountain established TWG and TWG sub groups with the City of Coquitlam to address specific topics of interest including coordination with the City’s Emergency Services.</p> <p>Discussions are underway through established Emergency Management sub-group meeting. Trans Mountain and the Contractor commit to arranging an Emergency Services site tour prior to the start of construction along with regular updates on Project-related traffic information.</p>	<p>In progress.</p> <p>Topic will be discussed at a SWG in January 2018.</p>
City of Coquitlam	Assurance that TMEP will adhere to City by-laws and permits requirements.	<p>Topic for TWG or TWG subgroup meetings.</p> <p>Trans Mountain established TWG and TWG sub groups with the City of Coquitlam to address specific topics of interest including permitting.</p>	<p>In progress.</p> <p>Trans Mountain confirmed intent to comply with all local and regional permitting requirements, as applicable; however, permits would be applied for by the General Contactor responsible for each spread (Q4 2017).</p>
City of Coquitlam	Construction impacts to landowners with property built on an old landfill	<p>Topic for future TWG or TWG subgroup meetings.</p> <p>Trans Mountain and the Contractor have</p>	<p>In progress. Pre-condition surveys are planned to be completed by Q1 2018.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		discussed conducting pre-condition surveys prior to construction.	
City of Coquitlam	Impacts of construction on recreational use in Colony Farm Regional Park.	<p>Trans Mountain intends to avoid the use of Colony Farm land to the extent feasible. Refer to response to BC Nature Canada IR No. 2.41b (A4H7Y8).</p> <p>On several occasions Trans Mountain has confirmed verbally and in writing with the City of Coquitlam (including by letter to Mayor Stewart on May 28, 2015) and other stakeholders, our commitment to use the Mayfair CP Rail siding as temporary workspace for the Fraser River trenchless crossing. As our design proceeds we will confirm access, however we commit to restricting access to existing disturbed areas such as the rail siding or existing roadways.</p> <p>This is a topic for TWG or TWG subgroup meetings.</p>	In progress. Topic will be added to TWG meetings in Q4 2017
City of Coquitlam	City of Coquitlam is concerned that material from trenchless construction may be contaminated and asked Trans Mountain to notify the City if contamination is discovered during construction.	<p>Topic for future TWG or TWG subgroup meetings.</p> <p>Under Condition 46 - Contamination identification and assessment plan, Trans Mountain will mitigate potential risk from exposure to pre-existing contamination. The Plan outlines appropriate measures for handling contaminated material to protect workers, public and the environment. Environmental site assessments will be completed at selected high risk properties prior to construction.</p>	<p>In progress.</p> <p>Trans Mountain and its Contractor will implement the TMEP Contamination Identification and Assessment Plan to address contaminated sites and disposal of such material and will notify the City if contamination is encountered during construction. Trans Mountain have captured this topic in the Rolling Action Plan regularly discussed with the City of Coquitlam at ongoing TWG meetings. The topic will continue to be included in the Rolling Action Plan for discussion by both parties.</p>
City of	City of Coquitlam requested that Trans Mountain include	Trans Mountain has added Bear Smart plant	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
Coquitlam	Bear Smart plant species in the Reclamation plan.	species in the Reclamation Plan.	Trans Mountain, its Contractor and the City of Coquitlam Environmental specialists conducted a site visit (drive/walk along the alignment) on August 29, 2017 and identified sites where bear smart species would be necessary.
City of Coquitlam	City is concerned about the network of methane collection pipes along United Boulevard corridor.	This topic was identified for a future TWG or TWG subgroup meeting in Condition 49 Report dated April 13, 2017.	Complete. KLTP met with the City's methane expert for a site visit on April 24, 2017 and reviewed a draft plan.
City of Coquitlam	Pavement on United Boulevard (City of Coquitlam requested that Trans Mountain restore and repave the two west bound lanes on United Boulevard after construction).	Topic for future TWG and subgroup meetings. Through the NEB IR process, Trans Mountain committed to restoring and repaving as necessary the two northern (westbound) lanes of United Boulevard post construction, in the areas affected by Trans Mountain's construction work.	In progress Discussions with the City about plans for United Boulevard repavement are ongoing. The topic was discussed and progress made at the Traffic Management SWG meeting on June 5, 2017, TWG meetings on July 18, 2017 and September 12, 2017. City of Coquitlam is reviewing and will provide feedback at the next scheduled TWG meeting. Topic will be discussed in a separate "United Boulevard rebuild" SWG.
City of Coquitlam	City of Coquitlam is a designated Bear Smart certified community and must consider reducing human-wildlife conflict. The City asked Trans Mountain to consider a change from three smaller culverts to one larger culvert in the area between Fraser River HDD crossing exit and United Boulevard to allow crossing for larger animals.	Topic for future TWG or TWG subgroup meetings.	In progress. KLTP is reviewing the culvert design and will provide an update to the City in Q4 2017.
City of Kamloops	Road crossings and methods.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.

Municipality	Issue/Concern	Response/Outcome	Status
City of Kamloops	Utility crossings and methods.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.
City of Kamloops	Tranquille sewer lift construction project - construction timing and project interaction.	Complete. Trans Mountain has confirmed there is no interaction with the Project.	Topic for a future TWG meeting in Q4 2017.
City of Kamloops	Traffic delays due to construction - Ord Road, Tranquille Road (trucking) and Missions Flats Road (access to solid waste management site)	<p>Topic for a future TWG meeting.</p> <p>Public access to the solid waste management site along Mission Flats Road will be maintained throughout construction. Short delays may be experienced by the public due to construction vehicle movement on and off Mission Flats Road. These activities will be managed by professional traffic controllers.</p> <p>Trans Mountain is committed to meeting NEB Condition 73 – Traffic control plans for public roadways, and to providing detailed traffic plans for discussion through TWG meetings. NEB Condition 73 requires Trans Mountain to consult with Appropriate Government Authorities, such as the City of Kamloops, in the development of this plan, and to provide a description and justification for how feedback from those consulted has been incorporated.</p>	Topic for a future TWG meeting in Q4 2017 or Q1 2018. .
City of Kamloops	Construction impacts to water and sewer infrastructure including sanitary pressure main along Mission Flats Road.	Complete. Trans Mountain has confirmed there is no interaction with the Project.	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
City of Kamloops	Maintain access and maintain storm water storage infrastructure function at Ord Road Dog Park.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017
City of Kamloops	Impacts to green spaces, parks and natural areas such Kenna Cartwright and Ord Road Dog Park.	Topic for a future TWG meeting. Detailed planning will be tied to the anticipated construction schedule. Alternate site located for Ord Road Dog Park. Detailed planning required for Kenna Cartwright notifications and dog park relocation.	Topic for a future TWG meeting in Q4 2017 (Ord Road) or Q1 2018 (Kenna Cartwright).
City of Kamloops	Noise impacts from construction and HDD.	Complete. Trans Mountain will comply with City noise bylaws during construction and is committed to meeting NEB Condition 74 – Horizontal directional drilling (HDD) Noise Management Plan.	Complete.
City of Kamloops	Impacts related to workers' use of healthcare services.	Complete. Trans Mountain is committed to meeting NEB Condition 13 – Socio-Economic Monitoring Plan and NEB Condition 59 – Worker accommodation strategy.	Complete.
City of Kamloops	Temporary and residual impacts to local rental housing market, including cumulative effects of proposed Ajax Mine labor force.	Trans Mountain is committed to meeting NEB Condition 59 – Worker accommodation strategy.	Complete. Worker Accommodation Condition 59 Updates have been filed with the NEB. Trans Mountain continues to work with local accommodation providers to optimize local opportunities and minimize negative impacts on the housing marker. A verbal report will be provided to the City of Kamloops at future TWG meetings.
City of Kamloops	Rock scaling required in TMEP RoW to protect Ord Road (City maintenance). Potential to coordinate work required.	Discussion on this issue is underway between City of Kamloops and KMC Operations.	Complete. A verbal update will be provided at a future TWG meeting in Q4 2017 or Q1 2018. Discussion on this issue is underway between City of Kamloops and KMC Operations.

Municipality	Issue/Concern	Response/Outcome	Status
City of Kamloops	Prior to construction, Trans Mountain will arrange procurement open houses or workshops at various local and regional locations to present potential supply opportunities to the project.	Trans Mountain agrees to arrange procurement workshops with its Contractors at various locations. Trans Mountain expects to begin these workshops in Q2 2017.	<p>In progress. Trans Mountain is committed to meeting NEB Condition 11 – Aboriginal, local, and regional skills and business capacity inventory; NEB Condition 12 – Training and Education Monitoring Plan; and NEB Condition 107 – Aboriginal, local and regional employment and business opportunity monitoring reports.</p> <p>Trans Mountain now expects to begin these workshops in Q4 2017 - Q1 2018 when contracting details are available.</p>
City of Kamloops	Trans Mountain will provide information about procurement opportunities to potential Aboriginal, regional, provincial and Canadian suppliers using various communication means.	In progress. Overview provided during February 2017 Public Information Session. Trans Mountain is committed to meeting NEB Condition 11 – Aboriginal, local and regional skills and business capacity inventory, and NEB Condition 12 – Training and Education Monitoring Plan.	In progress.
City of Kamloops	Trans Mountain will consult with owners and operators of Merritt, Kamloops and Blue River airports as part of Community Readiness Engagement and will continue throughout the Project planning and potential construction phases as more information becomes available.	Trans Mountain is working with the Kamloops Airport Society Management and is modifying construction plans to accommodate requests.	<p>Out of scope of the TWG.</p> <p>Conversations with the Kamloops Airport Society are ongoing through a parallel process. A verbal update will be provided at a future TWG meeting in Q4 2017 or Q1 2018.</p>
City of Kamloops	Trans Mountain will conduct engagement with municipal governments and community stakeholders in hub communities to discuss worker accommodation options and strategies.	<p>Consultation regarding worker accommodation began in 2013 and is ongoing. Trans Mountain's draft Worker Accommodation Strategy is available for review and comment.</p> <p>Trans Mountain informed the City the draft Worker Accommodation Strategy was available on its website for review and comment, as well as offered the option to meet to discuss feedback from the City with respect to this and</p>	Complete. Consultation regarding worker accommodation began in 2013 and is ongoing. Trans Mountain's Condition 59 Worker Accommodation Strategy and related updates have been filed with the NEB.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>other environmental management plans in emails sent on September 23, 2016 and November 30, 2016.</p> <p>The City of Kamloops participated in Socio-Economic Management Monitoring Plan workshop to review the accommodation approach. The preliminary worker accommodation plan (Plan) for Kamloops was shared in a Public Information Session on March 23, 2017. Community stakeholders with interest in workforce accommodation were invited to the Information Session and an opportunity to discuss the Plan with the subject expert was provided through discussion tables. The Plan was presented to Mayor and Council in a public council meeting on March 21, 2017.</p>	
City of Kamloops	Trans Mountain will continue to update the Kamloops Hotel Association as more information about workforce housing projections and timelines becomes available.	Consultation regarding worker accommodation began in 2013 and is ongoing. Trans Mountain's draft Worker Accommodation Strategy is available for review and comment. The Kamloops Hotel Association attended Trans Mountain's Public Information Session in Kamloops in February 2017 and was invited to review the Worker Accommodation Strategy with subject experts at that event.	Complete. Trans Mountain and its Contractors continue to meet with the Kamloops Hotel Association and Tourism Kamloops as part of ongoing engagement.
City of Kamloops	Presume that Trans Mountain or its contractors will install the required signage (Notification Measures #29 & 30 of the Pipeline EPP).	Topic for a future TWG meeting.	Complete. Trans Mountain will meet the commitments filed in NEB EPP Condition 78 reports.
City of Kamloops	Notify Fire Department in addition to Bylaws for	Topic for a future TWG meeting.	Complete. Trans Mountain will meet the commitments filed in NEB EPP Condition 78 reports.

Municipality	Issue/Concern	Response/Outcome	Status
	burning (Notification Measure #18 of the Pipeline EPP).		
City of Kamloops	The City should review proposed signs and locations within the Municipal boundary (Mitigation Measures #17-20 of the Pipeline EPP).	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.
City of Kamloops	Notification Measure # 26 (Bedrock disposal) of the Pipeline EPP - If disposed of locally, City Environmental Services department will direct which materials will go to what solid waste facilities and in what quantities (we have multiple locations).	Topic for a future TWG meeting.	Complete. Trans Mountain will meet the commitments filed in NEB EPP Condition 78 reports.
City of Kamloops	The City should have some involvement in reviewing drainage works as much of it may impact downstream City facilities or residents. We can't say exactly what permitting may be required as it will depend on location, scope and impact of individual drainage works (Mitigation Measures # 98-102 of the Pipeline EPP).	Topic for a future TWG meeting.	Complete. Trans Mountain will meet the commitments filed in NEB EPP Condition 78 reports.
City of Kamloops	Construction clean up - Specific requirements will be captured through Municipal permitting for specific	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q1 or Q2 2018.

Municipality	Issue/Concern	Response/Outcome	Status
	construction sites (road crossings etc.).		
City of Kamloops	There are many gully crossings that typically do not have surface water flowing, or may only flow intermittently. While the gullies do not have fish value, they do play important roles in storm water management and protection of properties downstream. Given the history of the gullies and their role in storm water management, Trans Mountain should be made aware of their importance.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.
City of Kamloops	Working windows should also consider times when Kamloops is at higher risk of significant rain events. These are typically early summer (June/July) and September. Snow melt should also be considered and measures in place to deal with these events.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.
City of Kamloops	General Measures: Activity/Concern 37 (equipment) of the Pipeline EPP makes reference to using non-toxic, biodegradable fluids in all equipment that will work instream if flowing water will	Topic for a future TWG meeting.	Trans Mountain will meet the commitments filed in NEB EPP Condition 78 reports.

Municipality	Issue/Concern	Response/Outcome	Status
	be encountered. From an environmental perspective, this requirement should be in place regardless of whether flowing water is encountered or not.		
City of Kamloops	Vehicle/Equipment Crossings: Activity/Concern 22 (Closed and Open Bottom Culverts) of the Pipeline EPP makes reference to use of culverts. Crossings should be adequately sized to convey the 1 in 100 year rain events and the City is generally not supportive of the use of Corrugated Steel Pipe material.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.
City of Kamloops	Parks department requests that in-person meetings with Kinder Morgan and/or their chosen contractor be held (when timing is appropriate) to go over the reclamation/work plans in the field, specifically for Kenna Cartwright Park. This approach is working very well with BC Hydro.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q1 or Q2 2018.
City of Kamloops	Page 29 Table 5.2-1 of the Riparian Habitat Management Plan (Vehicle/Equipment Crossings at watercourses):	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.

Municipality	Issue/Concern	Response/Outcome	Status
	There is mention of erosion and sediment control measures being implemented immediately following installation of crossing. Consideration should be given to control measures being in place before and during construction as well.		
City of Kamloops	Page 30 of the Riparian Habitat Management Plan: Geotechnical Engineer should be involved for many (if not all) crossings throughout the project, not only during clean up.	Topic for a future TWG meeting.	Topic for a future TWG meeting in Q4 2017.
City of Kamloops	Tranquille Road Beautification Project (Community Benefit Program).	The Tranquille Beautification Project is not a topic for a TWG meeting. Construction timing and discussion regarding any potential work-in-kind will be discussed in the TWG meeting.	Out of scope for TWGs. The Community benefit program is administered through the City of Kamloops Administration.
City of Kamloops	City requests list of sub-contractors.	Trans Mountain will provide this list when it is available. Topic for a future TWG meeting.	In progress. Trans Mountain has identified core sub-contracting services anticipated for construction to allow the City of Kamloops to plan infrastructure projects that do not draw on the same resources. Trans Mountain will provide a list of sub-contractors when contracts have been secured (estimated Q2 2018).
City of Kamloops	Trans Mountain requests list of City projects.	City will provide this list in advance of a future TWG meeting. Topic for a future TWG meeting.	City will provide this list in advance of a future TWG meeting when the information is available. Topic for a future TWG meeting in Q4 2017.
City of Merritt	Request for regular point of contact during construction.	Topic for a future TWG meeting.	Complete. Trans Mountain has maintained a point of contact for the Project since May 2012. This Project contact will continue throughout construction. The Contractor will identify a Construction

Municipality	Issue/Concern	Response/Outcome	Status
			Liaison prior to the start of construction.
City of Merritt	Camp impacts - wet vs dry (prefer dry), impacts on community resources and amenities.	Consultation regarding worker accommodation began in 2013 and is ongoing. Trans Mountain's draft Worker Accommodation Strategy is available for review and comment, and will be reviewed with Merritt at a future TWG meeting.	Complete. Trans Mountain informed the City the draft Worker Accommodation Strategy was available on its website for review and comment, as well as offered the option to meet to discuss feedback from the City with respect to this and other environmental management plans in emails sent on September 23, 2016 and November 30, 2016. Trans Mountain is committed to meeting NEB Condition 59 – Worker Accommodation Strategy.
City of Merritt	Capacity of TMEP to accommodate the proposed runway expansion (1000 ft. new runway). Capacity of TMEP to accommodate runway.	Topic for a future TWG meeting.	Discussions underway with the City of Merritt. Topic for future TWG in Q1 2018.
City of Merritt	Proximity of pipeline construction to Coldwater River due to salt leaching and stability problems.	Trans Mountain will follow EPP commitments related to protection of riparian areas and will ensure construction site stability.	In progress.
City of Merritt	Need to file a NOTAM (Notice to Airmen) for airport construction.	Trans Mountain will follow NAV Canada and Transport Canada aviation permitting requirements and submit airport proximity permit applications to appropriate federal authorities.	Complete.
City of Merritt	Need to know what type of activity and equipment is on site at proposed laydown area in order to amend fire protection agreement with Lower Nicola Band.	Trans Mountain will provide additional information once its contractor and the site are confirmed. Topic for a future TWG meeting.	Topic for a future TWG meeting in Q1 2018.
City of Merritt	Trans Mountain will provide a Community Liaison within the community (not at a construction office) to manage inquiries and	Topic for a future TWG meeting.	Complete. Trans Mountain has maintained a point of contact for the Project since May 2012. This Project contact will continue throughout construction. The Contractor will identify a Construction Liaison prior to the start of construction.

Municipality	Issue/Concern	Response/Outcome	Status
	provide ease of access during construction.		
City of Merritt	Trans Mountain will consult with owners and operators of Merritt, Kamloops and Blue River airports as part of Community Readiness Engagement and will continue throughout the Project planning and potential construction phases as more information becomes available.	In progress. Topic for a future TWG meeting.	Discussions underway with the City of Merritt. Topic for future TWG in Q1 2018.
City of Surrey	City of Surrey requested that Trans Mountain twin the new pipeline and abandon the existing line due to concern regarding two pipelines impacting two different corridors.	Trans Mountain has indicated to the City of Surrey that it does not plan to abandon its existing pipeline through Surrey.	Complete.
City of Surrey	City of Surrey opposed the proposed corridor which has the pipeline routed on the southern edge of Surrey Bend Regional Park (SBP) and prefers an alternative routing in South Fraser Perimeter Road Highway (SFPR) or CN intermodal yard.	<p>Trans Mountain has developed a preferred route along and adjacent to SFPR to avoid Surrey Bend Regional Park (submitted under Condition 7). The SFPR route is subject to agreement by the Ministry of Transportation and Infrastructure (MOTI) and additional geotechnical studies.</p> <p>Trans Mountain provided written rationale supporting the proposed alternative route along and adjacent to SFPR subject to Condition 7, MOTI agreement and additional geotechnical studies.</p>	<p>Complete.</p> <p>Per the City's request, Trans Mountain provided written rationale (by email) on September 8, 2017 supporting the current TMEP pipeline alignment between Golden Ears Connector (GEC) and Port Mann Bridge to the City of Surrey subject to Condition 7.</p> <p>This rationale included a recap of Trans Mountain's route selection process in Surrey dating back to 2012 when consultation with landowners, Aboriginal groups, local governments and members of the community began. Extensive consultation and consideration was given to the concerns and issues raised as acknowledged in NEB's Report recommending the Project "Trans Mountain's route selection process, route selection criteria, and level of detail for its alternative means assessment are appropriate" (p. 244).</p> <p>In March 2017, Trans Mountain submitted Condition 7 – Environmental and Socio-economic Assessment – Route Re-alignments to the NEB. The SFPR reroute is subject to approval by the NEB, agreement by BC Ministry of Transportation & Infrastructure (MOTI) and subject to</p>

Municipality	Issue/Concern	Response/Outcome	Status
			<p>completion of additional geotechnical studies.</p> <p>The current route alignment that generally runs along the south side of GEC and SFPR to the Fraser River crossing, avoiding the Surrey Bend Regional Park, is the optimal route that most meets Trans Mountain’s routing criteria and addresses concerns from key stakeholders, including the City of Surrey, environmental groups and landowners.</p> <p>This route utilizes three HDDs providing the following benefits:</p> <ul style="list-style-type: none"> • reduces construction footprint and surface impact during construction; • reduces impacts to: <ul style="list-style-type: none"> ○ defined wetlands ○ critical habitat for species at risk as well as other terrestrial wildlife ○ residents and City’s parkland by significantly reducing the area where tree removal is required and maintaining visual screening for residents from railway and SPFR • avoids challenging terrain. <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project to share information and seek input.</p> <p>Trans Mountain values the positive working relationship with the City and remains committed to working together to resolve any outstanding concerns and minimize any potential impacts from the Project to the extent practical. Pipeline alignment through Surrey including SFPR re-route will continue to be discussed through TWGs.</p>
City of Surrey	<p>Cost to municipality to work around pipe located in roadways.</p> <p>Municipalities and others having jurisdiction over highways will incur present and future costs as a consequence of the proposed pipeline impacting their utilities and as a consequence of the proposed pipeline occupying</p>	<p>Trans Mountain has stated that it does not intend for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain Operations will meet and discuss outstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>This topic is not part of the TWG mandate.</p>	Out of scope.

Municipality	Issue/Concern	Response/Outcome	Status
	or crossing highways.		
City of Surrey	The City of Surrey suggests that in evaluating how to incorporate the input of Surrey into the plans for TMEP, Trans Mountain will use as a guiding principle that the TMEP should not place unnecessary cost, burden or risk upon the City of Surrey.	Trans Mountain has not yet responded to the City of Surrey on this request. It will be added to a future TWG meeting agenda.	Complete. Trans Mountain agreed that in evaluating how to incorporate the input of Surrey into the plans for the TMEP, it will be guided by the principle that to the extent practical the Project will not place unnecessary cost, burden or risk upon the City of Surrey.
City of Surrey	Minimizing construction impact to residential neighbourhoods and the public (Fraser Heights).	Construction related impacts are topics for future TWG meetings. Trans Mountain continues to engage with stakeholders around multiple aspects of the Project, including ongoing engagement with neighbours (including businesses) to share information and seek input to our detailed construction plans to minimize impact to neighbours during construction.	In progress. Trans Mountain held a bilingual (Mandarin) information session in Fraser Heights on June 27, 2017 and an update to Fraser Heights Community Association on June 29, 2017. Future outreach is planned for the fall 2017 and early 2018.
City of Surrey	Construction timing (avoid delays to Surrey Infrastructure improvement projects).	Construction timing is a topic for future TWG meetings. Trans Mountain will work with the City in the scheduling of respective works to avoid or minimize construction impacts through advance coordination and planning.	In progress. Trans Mountain and the City have established regular TWG and SWG meetings to discuss and coordinate technical aspects of TMEP including the scheduling of respective works to avoid or minimize construction impacts through advance coordination and planning.
City of Surrey	Necessary consent from Trans Mountain and other interest holders in Trans Mountain's statutory RoW to enable the City of Surrey to dedicate required land for	Trans Mountain provided a response in a letter dated September 23, 2016. This concern relates to the "Lot X" scenario where a pipeline company has a statutory RoW registered on title for lands that the municipality either wishes to dedicate as a road, or is	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
	highway/road.	<p>planning for a road, and the municipality wishes to have the easement removed to enable the lands to be dedicated as a road, (as contrast to the normal road dedication which extinguishes the underlying title). Trans Mountain abandoned this practice approximately 16 years ago and will allow full road dedication if the pipeline alignment across a new or expanded road is close to ninety degrees and our criteria for dedication are met. There have been many examples in the past 16 years where Trans Mountain has worked with the City to dedicate the RoW to road in Surrey. Trans Mountain has long recognized the importance of working with local governments cooperatively to meet each other's objectives, this being one example. In the legacy instances where the City still holds a Lot X road parcel containing our RoW, upon request from the City, Trans Mountain will review the situation and will release legacy Lot Xs if they meet the policy criteria now used to assess road dedication.</p> <p>This topic is not part of the TWG mandate.</p>	
City of Surrey	Inconsistent Terms contained in Pipeline Permits issued by Trans Mountain.	<p>Trans Mountain will commit to have our Damage Prevention Manager work with the appropriate City staff to clearly identify the issues. Trans Mountain will continue to work with the City to mitigate these concerns to every extent possible.</p> <p>This topic is not part of the TWG mandate.</p>	<p>Out of scope of TWGs.</p> <p>Based on concerns expressed by municipalities located in the Lower Mainland of BC about the clarity and applicability of the Damage Prevention Regulations, the NEB collaborated with municipalities and pipeline companies operating in the region to develop new Guidance for Municipal Operations and Maintenance Activities. KMC's Damage Prevention Manager participated in these meetings on Trans Mountain's behalf. The new guidance provides further clarity and direction for all Canadian municipalities to safely and efficiently undertake routine operations and maintenance activities and also provides NEB-regulated pipeline companies with direction. The new guidance can be found on the NEB website at www.neb-one.gc.ca in the Safety and Environment tab in the Damage Prevention section.</p> <p>This issue is being resolved through direct conversation with municipalities and clarity provided by</p>

Municipality	Issue/Concern	Response/Outcome	Status
			the NEB DPRs.
City of Surrey	Release and Indemnification in favour of Surrey.	<p>Trans Mountain needs to better understand specifically what the concern is and in what circumstances a release and indemnity is appropriate.</p> <p>Trans Mountain is open to discussion on this topic outside of TWGs.</p>	Out of scope of TWGs.
City of Surrey	Requirement to enter into Operating Agreements with Surrey prior to TMEP construction with respect to the entire expanded pipeline system.	<p>Trans Mountain will work with the City in a collaborative manner that addresses the interests of both the City of Surrey and Trans Mountain.</p> <p>Trans Mountain will enter into agreements subject to acceptable terms and conditions.</p> <p>This topic is not part of the TWG mandate.</p>	Out of scope of TWGs.
City of Surrey	Reimbursement of emergency event/incident costs.	<p>In the unlikely event of an incident, there are provisions within the NEB Act under Section 75 contemplating claims of third parties experiencing additional costs due to the undertaking of our company. The overarching principle is that an incident should not leave impacted parties out or inadequately compensated for incident-related impacts. This topic is not part of the TWG mandate but Trans Mountain is open to discussion on this topic outside of TWGs.</p>	Out of scope of TWGs.
City of Surrey	Community Benefits Agreement.	<p>Trans Mountain intends to discuss the Community Benefits Agreement further.</p> <p>This topic is outside the scope of TWGs.</p>	While this topic is out of scope for TWGs, Trans Mountain remains open to discussing a potential community benefit agreement with the City of Surrey.
City of Surrey	Agreement to construct or coordinate construction of all	NEB has established new Damage Prevention Regulations requiring some changes to Trans	Out of scope of TWGs.

Municipality	Issue/Concern	Response/Outcome	Status
	future City works located with the Trans Mountain Prescribed Area (formerly known as the Safety Zone) to minimize costs to taxpayers.	<p>Mountain policies and guidelines. The Prescribed Area (formerly known as the Safety Zone) described in the earlier legislation has been revised as a result. Trans Mountain will work with the City to address concerns, where applicable.</p> <p>This topic is not part of the TWG mandate.</p>	
City of Surrey	Inadequate Emergency Response Plan.	Trans Mountain continues to engage stakeholders on its EMP. Trans Mountain will invite City of Surrey to future Emergency Management engagement opportunities and exercises/deployments.	<p>Out of scope of TWGs.</p> <p>In the unlikely event of an incident, there are provisions within the NEB Act under Section 75 contemplating claims of third parties experiencing additional costs due to the undertaking of our company. The overarching principle is that an incident should not leave impacted parties out or inadequately compensated for incident-related impacts.</p> <p>Trans Mountain is open to discussion on this topic outside TWGs.</p>
City of Surrey	City of Surrey requested that prior to Trans Mountain submitting a Condition filing to the NEB, Trans Mountain provide the City with a draft summary of the consultation undertaken with the City and allow the City reasonable period to provide feedback.	<p>Trans Mountain is committed to transparently working together through the TWGs.</p> <p>Although it is not practical to provide a draft consultation summary to stakeholders for review in advance of filings, as part of the TWG process, Trans Mountain will share draft TWG meeting summaries and a RAP for review and input within a specified timeframe. These documents will form the basis of the Condition filings related to consultation.</p>	In progress.
City of Surrey	City of Surrey requested that Trans Mountain provide a copy of the NEB filing receipt, for, or notice of, the condition filing to which the consultation pertained.	Trans Mountain will commit to notifying the City when Condition reports are filed with the NEB.	<p>In progress.</p> <p>Trans Mountain has been notifying the City as Condition reports pertaining to the City of Surrey are being filed.</p>
City of Surrey	City of Surrey provided feedback to the draft TWG	Draft Terms of Reference are a topic for future	In progress.

Municipality	Issue/Concern	Response/Outcome	Status
	ToR and Appendix B: Joint Municipal Conditions.	<p>TWG meetings.</p> <p>Trans Mountain has developed the draft ToR based on the requirements and as directed by NEB conditions 14 and 49. The goal of the TWGs is to address specific technical and construction issues with each affected municipality. The ToR provide the framework for how Trans Mountain and municipalities will work together to achieve this goal, including identifying the appropriate contacts to participate in TWGs; proposing a method for tracking issues and resolution of concerns; protocols for reporting and communicating with TWG members; and identifying the issues or topics within the TWGs scope and mandate.</p> <p>Technical and construction issues related to TMEP will be addressed through the TWG framework. Decisions related to the existing TMPL or future operations once TMEP is completed, including municipal costs, crossing agreement and permitting, will be addressed through discussions with the appropriate KMC representative, as well as meetings convened by the NEB.</p> <p>Trans Mountain will review the City's feedback to draft the ToR and Appendix B and respond accordingly.</p>	<p>As mentioned in section 2.0, Trans Mountain has not received any specific feedback from the City of Surrey on the draft ToR since they were shared on May 26, 2017. TWG meetings continue with agreement from both parties that ongoing discussions will follow the current TWG format. Trans Mountain remains committed to working with the City of Surrey to resolve any outstanding concerns to the extent practical. Discussions with the City of Surrey will continue and appropriate Trans Mountain experts will attend future TWGs as necessary.</p> <p>Trans Mountain will revisit the ToR with the City of Surrey once the NEB has ruled on the plan, profile and book of reference for the section of the detailed route through Surrey.</p>
City of Surrey	Relocate TMEP to 'alternative' corridor approximately between AK 1160 and AK 1166 [immediately adjacent to SFPR, Golden Ears Connector Corridor and CN	On March 17, 2017 Trans Mountain filed its Plan, Profile and Book of Reference for Surrey, as well as Condition 7 for Surrey confirming its detailed alignment. Although the alignment removes routing from Surrey Bend Park, it does not follow the City's described 'alternative' corridor.	<p>In progress.</p> <p>As mentioned above, per the City's request, Trans Mountain provided a written rationale (by email) on September 8, 2017 supporting the current TMEP pipeline alignment between Golden Ears Connector (GEC) and Port Mann Bridge to the City of Surrey subject to Condition 7.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	Rail Corridor].		
District of Clearwater	Concern about lost recreational use of the ROW through North Thompson Park during construction.	Trans Mountain will coordinate construction notifications with BC Parks and the District of Clearwater. Trans Mountain will update the District of this topic through a future TWG meeting.	A verbal update will be provided in Q1 2018.
District of Clearwater	Concern about conflict with development of new regional park between KP704 and 705 - northeast of Raft River (TNRD application).	This location falls within the jurisdiction of the TNRD. Trans Mountain will engage with TNRD for additional information and will provide an update to Clearwater through a future TWG meeting.	Complete. This location is not currently planned for park development by the TNRD. No further action is required.
District of Clearwater	Potential water capacity issue due to construction and influx of workers.	Topic for a future TWG meeting.	In progress. This topic is addressed through the NEB Condition 59 Worker Accommodation Strategy and related camp development applications.
District of Clearwater	Current drainage issues at Candle Creek Road - would like TMEP to partner with repairs if area if impacted during construction.	Topic for a future TWG meeting.	Complete. Trans Mountain and its Contractor completed a site visit of the location with the District of Clearwater and its consulting engineers. Trans Mountain will work consider drainage concerns during construction at this location.
District of Clearwater	Utility crossings and cost sharing for infrastructure replacement (pipe) - concern about disturbing old pipes.	TWG field visits and desktop review of all crossings scheduled for April 11, 2017.	Complete. TWG field visits and desktop review of all crossings were completed on April 11, 2017. Crossings of concern and potential impacts of District infrastructure were identified.
District of Clearwater	May require sewer lagoon upgrades if camp waste is trucked to Clearwater (no capacity at Vavenby).	Topic for a future TWG meeting once camp capacity and locations are confirmed.	In progress. This topic is addressed through the NEB Condition 59 Worker Accommodation Strategy and related camp development applications.

Municipality	Issue/Concern	Response/Outcome	Status
District of Clearwater	Confirm camp location, format and utility requirements.	Topic for a future TWG meeting. Trans Mountain is currently consulting on NEB Condition 61 – List of Temporary Infrastructure Sites.	In progress. Camp location has been identified. Format and utility requirements are under development. Discussions will continue through the permitting process in Q4 2017 and Q1 2018.
District of Clearwater	Existing ROW from Norfolk Rd to the hospital is in high use. District is applying for grant for new multi-use pathway that could be developed in time to relocate pedestrian activity. Would like to liaise re: timing.	District has agreed to provide project timing to Trans Mountain at a future TWG meeting.	In progress. The District of Clearwater will provide an update in Q4 2018.
District of Hope	Routing and Coquihalla River crossing.	Trans Mountain has shared with the District that geotechnical results indicate that an HDD crossing of the Coquihalla River will not be feasible. Trans Mountain plans to cross this location using open-trench construction methodology in the Least Risk fisheries window.	Complete.
District of Hope	Safety and Emergency Response.	Trans Mountain has ongoing engagement with the District of Hope related to emergency management planning.	Complete.
District of Hope	Stakeholder interests and concerns and ensuring Mayor and Council are kept updated on construction plans.	Communication and Notification Plan will be the topic of a future TWG meeting.	In progress. Topic for future TWG meetings in Q1 2018.
District of Hope	Ensuring District's operation plans (sanitary main project) are coordinated with Trans Mountain construction plans.	Trans Mountain appreciates being provided with information regarding District projects to coordinate timing and minimize conflicts.	In progress. Topic for future TWG meetings in Q1 2018.

Municipality	Issue/Concern	Response/Outcome	Status
District of Hope	Construction vehicles using Othello Road and impact to local traffic if Nestle's trucks need to reroute to accommodate.	Trans Mountain acknowledges there will be an overall increase to local traffic due to construction. Trans Mountain is developing a traffic plan, which will also include mitigation measures. This will be a topic at a future TWG meeting.	In progress. Topic was discussed at a TWG Meeting on May 16, 2017. Topic for future TWG meetings in Q1 2018.
Fraser Valley Regional District	One single point of contact.	<p>During the design engineering phase Trans Mountain employed two engineering design firms for routing and detailed engineering of the proposed alignment. The FVRD region spans the areas of both engineering consultants' responsibility. In response to FVRD's concerns for a single point of contact, Trans Mountain agreed that the interior section engineering design consultant will be the sponsor of all future TWG meetings.</p> <p>At the time of Reply Evidence, Trans Mountain did not envision a Contractor split within FVRD's territory. However, Trans Mountain has since engaged with a separate Contractor for the Coquihalla to Wahleach Station (near Bridal Veil Falls). To address FVRD's original concern for a single point of contact, the FVRD's primary interface will be with the Contractor for Spread 6, which covers the Popkum/Bridal Veil Falls area. The Stakeholder Engagement and Communications contact will remain consistent.</p>	Complete.
Fraser Valley Regional District	Impacts to air quality	<p>Trans Mountain continues to engage with stakeholders around multiple aspects of the Project, to share information and seek input. Trans Mountain's draft EPPs are being posted in phases on its website for review and comment.</p> <p>Trans Mountain informed the FVRD of draft</p>	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Environmental Plans available on its website for review and comment, as well as offered the option to meet to discuss specific feedback from the FVRD.</p> <p>Trans Mountain met with the Lower Fraser Valley Air Quality Coordinating Committee (LFVAQCC), which includes the FVRD, on February 17, 2017 to review the draft Air Emissions Management Plan (AEMP) and Fugitive Emissions Management Plan (FEMP) for Westridge Marine Terminal, as well as the AEMP and FEMP for Edmonton, Sumas and Burnaby Terminals, and a related addendum. Feedback received at this meeting about these four plans is being considered by Trans Mountain.</p>	
Fraser Valley Regional District	Emergency Response Planning for remote areas.	Trans Mountain continues to engage stakeholders on its EMP. Trans Mountain will invite the FVRD to future Emergency Management engagement opportunities and exercises/deployments.	Complete.
Fraser Valley Regional District	Include issues related to existing TMPL.	Trans Mountain will Pass this concern on to KMC Operations. This is out of scope for the TWG mandate.	Out of scope for TWGs.
Fraser Valley Regional District	Disposal of wood and timber from tree clearing.	Trans Mountain has developed a Timber Salvage Plan, which will be an appendix to the Environmental Protection Plan. Commitment ID No 72 to the NEB states that in the Lower Fraser Valley where air quality is an issue, Trans Mountain will avoid burning slash. Instead, mulching will be performed in place or slash will be shipped/hailed to an approved disposal site. This commitment is already	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
		reflected in the current draft of the Timber Salvage Plan.	
Fraser Valley Regional District	Protest activity and the potential impact to FVRD's ability to complete its work, and keeping elected officials informed through regular updates.	Trans Mountain understands community concerns with regards to security. Trans Mountain has developed detailed security plans and is working with local enforcement agencies. The Communications and Notification Plan will be a topic at a future TWG meeting.	In progress. Topic for future TWG meetings in Q1 2018.
Metro Vancouver	Metro Vancouver has an unprecedented amount of major proximate work going on across the region. Mutual information exchange will be important to protect Metro Vancouver's infrastructure.	Topic for a future TWG or sub-TWG meetings.	Complete. Topic was discussed at TWG meeting on May 4, 2017 and is an ongoing agenda topic. Trans Mountain and its Contractor confirmed that it can prioritize crossings to accommodate Metro Vancouver activities.
Metro Vancouver	Two weeks' advance notice for an agenda is not adequate. More notice requested if possible, especially for complex issues where Metro Vancouver will need to investigate before meeting.	TWG meetings will be set on a rolling schedule. TWG agendas will be issued with as much advance notice as practical.	Complete.
Metro Vancouver	Metro Vancouver is planning a transportation hub in United Boulevard area and the construction timing may overlap.	Topic for a future TWG or sub-TWG meetings.	In progress. Topic for future TWG meetings in Q4 2017.
Metro Vancouver	Metro Vancouver is concerned about the Lake City interceptor, which is proximal to TMEP.	Topic for a future TWG or sub-TWG meetings.	In progress. Topic for future TWG meetings in Q4 2017.

Municipality	Issue/Concern	Response/Outcome	Status
Metro Vancouver	Impacts of a spill in Burrard Inlet.	<p>Topic for future TWG or subgroup meetings.</p> <p>For accidents and malfunctions, Trans Mountain conducted a series of Human Health Risk Assessments (HHRA) with the aim of identifying and understanding the potential health effects that might be experienced by people in the unlikely event of an oil spill. Some of the major conclusions that emerged from the HHRAs were:</p> <ul style="list-style-type: none"> • In the unlikely event of an oil spill, there was no obvious indication that people’s health would be seriously adversely affected by acute inhalation exposure to the chemical vapours released during the early stages of a spill under any of the simulated oil spill scenarios examined; and • In the unlikely event of an oil spill, the health effects that could be experienced by people in the area would likely be confined to mild, transient sensory and/or non-sensory effects, attributable largely to the irritant and central nervous system depressant properties of the chemicals. Odours also might be noticed, which could contribute to added discomfort and irritability • The exposure and hazard/effects assessment methodology is described in Section 5.0 of Volume 8 B of the Facilities Application (Filing ID A3S4K7) • A complete Emergency Response Assessment of marine oil spill, including spill trajectory modelling can be found in Volume 8B (Filing IDs A3S4K7 through A3S4R2) of the Application. 	<p>In progress.</p> <p>Trans Mountain offered an Emergency Management presentation to Metro Vancouver staff.</p> <p>Trans Mountain would also be pleased to arrange for a briefing for Metro Vancouver from Western Canada Marine Response Corporation (WCMRC).</p>

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Trans Mountain is committed to meeting NEB Condition 133 - Marine shipping-related commitments.</p> <p>Trans Mountain welcomes the opportunity to meet with Metro Vancouver to discuss emergency management, to identify areas of specific environmental concern, or other topics of concern.</p> <p>Trans Mountain has and will continue to invite Metro Vancouver to participate in its Emergency Response engagement, training and exercises where critical information about impact to a community in the event of an oil spill is exchanged.</p>	
Metro Vancouver	<p>Induced economic benefits from the Project are considered, but induced impacts (costs) are not considered. In particular, Trans Mountain should consider induced GHG emissions and impacts from associated economic activities.</p>	<p>This issue was addressed in the NEB Decision at Section 6.1.8.</p> <p>Trans Mountain is committed to meeting NEB Condition 13 - Socio-Economic Effects Monitoring Plan.</p> <p>Consultation with municipalities has helped to identify, mitigate and minimize social and economic impacts upon communities.</p> <p>The scope of the economic impact assessment is defined in Volume 5B of the Facilities Application (Filing ID A3S1R5).</p>	Complete.
Metro Vancouver	<p>Design of the pipeline has not taken adequately into consideration seismic hazards.</p>	<p>Topic for future TWG or subgroup meetings.</p> <p>Trans Mountain will recognize all seismic hazard areas along the entire TMEP alignment including within the Metro Vancouver Regional District and will design and construct the pipeline in accordance with the BC Building</p>	In progress. Topic for future TWG meetings in Q4 2017.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Code and National Building Code of Canada requirements for an earthquake with a 1:2475 annual probability of exceedance. Furthermore, Trans Mountain will adopt proven materials and undertake design in accordance with CSA Z662, Oil and Gas Pipeline Systems.</p> <p>Trans Mountain is committed to meeting NEB Condition 68 - Seismic reports – liquefaction potential, NEB Condition 69 - Fault studies.</p>	
Metro Vancouver	Environmental impacts on air, land and water, due to emissions from pipeline and marine terminal facility operations, marine shipping activities and accidents or malfunctions.	<p>Trans Mountain’s Environmental and Socio-economic Assessment (ESA) is supported by detailed studies such as wildlife, fish, vegetation and geotechnical assessments and TLRU and TMRU studies which provide a thorough understanding of the current uses of land and resources for traditional purposes. The ESA also includes multiple Environmental Alignment Sheets, which contain a comprehensive suite of well-understood and field-proven mitigation techniques to address potential issues that may arise.</p> <p>Trans Mountain has demonstrated in the ESA that the potential adverse environmental effects of the pipeline and other Project facilities will be reduced or eliminated by way of general and site specific mitigation measures based upon current industry accepted standards, consultation with regulatory authorities, interested groups and individuals, engagement with Aboriginal groups and the professional judgment of the assessment team.</p> <p>The ESA concluded that the proposed pipeline and associated facilities (e.g., pump stations, terminals, Westridge Marine Terminal) will not likely result in significant adverse environmental</p>	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>effects on any element or indicator. None of the intervenors have filed evidence that affects that conclusion.</p> <p>As stated in Section 4.3.15.1 of Volume 8A of the Application (Filing ID A3S4Y3), through the implementation of the mitigation measures, the residual effects associated with the increase in marine transportation on the environmental and socio-economic elements were considered to be not significant in all cases except one. Given that past and current activities are considered to have caused significant adverse effects on the southern resident killer whale population, the effects associated with the increased Project-related marine vessel traffic on this species is considered to be significant.</p> <p>Trans Mountain affirms:</p> <ul style="list-style-type: none"> • Where significant adverse environmental effects exist for the southern resident killer whale, Trans Mountain submits that multi-party solutions are the most appropriate approach to managing effects on critical habitat and any associated effects on traditional use of the population. The Marine Mammal Protection Plan identifies and integrates multi-party solutions for this reason. • The construction and operation of the Project, subject to the Board's conditions, and the extensive regulatory regime that is currently in place, can be carried out in a manner that will have no unacceptable environmental or socio-economic impacts. 	

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Refer to NEB Decision page 336.</p> <p>Trans Mountain is committed to meeting NEB Condition 52 - Air Emissions Management Plan for the Westridge Marine Terminal, NEB Condition 53 – Fugitive Emissions Management Plan for Westridge Marine Terminal and NEB Condition 132 - Marine Mammal Protection Program.</p> <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the Project, to share information and seek input. Trans Mountain’s draft EPPs have been/are being posted in phases on its website for comment. Stakeholders are invited to provide their feedback through the website and TWG discussion during the consultation window for each plan. The Westridge Marine Terminal AEMP and FEMP and the Burnaby Terminal AEMP and FEMP were available for consultation but the consultation windows have now closed for these plans. Metro Vancouver was notified about the opportunity to provide input to these plans by email. Trans Mountain offered to meet to review the plans with Metro Vancouver.</p> <p>Trans Mountain met with the Lower Fraser Valley Air Quality Coordinating Committee (LFVAQCC), which includes Metro Vancouver, on February 17, 2017 to review these four plans and a related addendum. Subsequently, Metro Vancouver submitted its comments on these plans. Trans Mountain reviewed comments submitted by Metro Vancouver (and other stakeholders). All comments provided by Metro Vancouver (and other stakeholders) are</p>	

Municipality	Issue/Concern	Response/Outcome	Status
		<p>summarized and addressed in Appendix A of the Plans. In some cases, edits to the applicable Air Emissions Management Plan or Fugitive Emissions Management Plan (Plans) were made as practical.</p>	
<p>Metro Vancouver</p>	<p>Contingency planning in the event of a spill or accident during construction and / or operation of the Project.</p>	<p>Topic for future TWG or subgroup meetings.</p> <p>Trans Mountain has access to \$750 million in insurance for a land-based spill. Compensation frameworks and insurance covering a land-based spill are described in responses to NEB IR Nos. 1.08b to 1.08h (Page 24 of 481 in Filing ID A3W9H8). In the event that a liability occurs that is in excess of its insurance, Trans Mountain expects that any losses and claims would be paid out of cash reserves and cash flow from operations, which are illustrated in the response to NEB IR Nos. 1.09a and 1.09b (Page 29 of 481 in Filing IDs A3W9H8 and A3W9I1). Those responses illustrate that Trans Mountain expects that it would have cash available over the first 5 years of approximately \$2.1 billion and a cash reserve balance at the end of Year 5 of approximately \$150 million. To the extent there is insufficient cash available Trans Mountain would either draw on credit facilities, issue debt, or borrow from its parent company, depending on the extent of the loss and its immediacy.</p> <p>Trans Mountain efforts will further be dedicated to reducing the chances of such unlikely events occurring, and to developing comprehensive contingency plans that mitigate impacts in the unlikely event that they do occur.</p> <p>Trans Mountain is committed to meeting NEB Condition 89 - Emergency Response Plans for</p>	<p>In progress.</p> <p>Trans Mountain has offered an Emergency Management presentation to Metro Vancouver staff. Metro Vancouver has not yet requested a presentation.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		<p>construction, NEB Condition 90 - Consultation on improvements to Trans Mountain's Emergency Management Program, NEB Condition 117 - Reporting on improvements to Trans Mountain's Emergency Management Program, NEB Condition 124 - Implementing improvements to Trans Mountain's Emergency Management Program, NEB Condition 125 - Emergency Response Plans for the Pipeline and for the Edmonton, Sumas and Burnaby Terminals, NEB Condition 126 – Emergency Response Plan for Westridge Marine Terminal.</p> <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, including ongoing engagement on ERPs to share information and seek input.</p> <p>Trans Mountain has and will continue to invite Metro Vancouver to participate in its Emergency Response engagement, training and exercises.</p>	
Metro Vancouver	Impacts to wildlife as a result of increased tanker traffic in Burrard Inlet.	<p>The marine ESA provides the Board with the information necessary to understand the environmental and socio-economic effects resulting from the Project related to an increase in marine traffic from the geographic area extending between the Westridge Marine Terminal and a location known as "Buoy J" (i.e., the 12-mile nautical territorial limit) at the entrance to the Strait of Juan de Fuca, covering the internationally established shipping lanes and the waters and lands closely adjoining these lanes.</p> <p>As stated in Section 4.3.15.1 of Volume 8A of the Application (Filing ID A3S4Y3), through the implementation of the mitigation measures, the</p>	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>residual effects associated with the increase in marine transportation on the environmental and socio-economic elements were considered to be not significant in all cases except one. Given that past and current activities are considered to have caused significant adverse effects on the southern resident killer whale population, the effects associated with the increased Project-related marine vessel traffic on this species is considered to be significant.</p> <p>Trans Mountain affirms:</p> <ul style="list-style-type: none"> • Where significant adverse environmental effects exist for the southern resident killer whale, Trans Mountain submits that multiparty solutions are the most appropriate approach to managing effects on critical habitat and any associated effects on traditional use of the population. The Marine Mammal Protection Plan identifies and integrates multi-party solutions for this reason. • The construction and operation of the Project, subject to the Board’s conditions, and the extensive regulatory regime that is currently in place, can be carried out in a manner that will have no unacceptable environmental or socio-economic impacts. <p>Trans Mountain is committed to meeting NEB Condition 132 - Marine Mammal Protection Program.</p> <p>Short term projects, scientific studies and education initiatives are being considered to better understand potential threats associated</p>	

Municipality	Issue/Concern	Response/Outcome	Status
		<p>with commercial vessel related activities. As discussed in Trans Mountain’s evidence, 1007 multiple projects are currently under consideration by the Enhancing Cetacean Habitat and Observation Program (ECHO) relating to underwater noise and vessel strikes. Trans Mountain has entered into a funding agreement with Vancouver Fraser Port Authority, wherein Trans Mountain has agreed to contribute \$1.6 million to VFPA’s ECHO Program, which seeks to better understand and manage potential effects on cetaceans (i.e., whales, porpoises, and dolphins) resulting from commercial vessel activities throughout the southern coast of BC Through the ECHO program, VFPA will work in collaboration with government agencies, Aboriginal, marine industry users (including Trans Mountain), non-government organizations and scientific experts to examine threats to at-risk cetaceans in the region.</p> <p>Trans Mountain intends to review all the results of the ECHO Program studies with a view to incorporating the resulting recommendations in the Marine Mammal Protection Program.</p>	
Metro Vancouver	Impacts to sensitive ecosystems, designated conservation areas, parks, fish-bearing waterways and habitat that supports Species at Risk, public recreation, tourism and fisheries.	<p>The mitigation and restoration measures proposed for the Project are designed to meet or exceed those required by Federal and Provincial agencies.</p> <p>Mitigation measures are incorporated within the Project design to reduce the spatial scale, duration, and intensity of effects to manage the potential for serious harm to fishes and their habitat. These measures include, for example, adherence to the Least Risk Biological Window</p>	<p>In progress. Trans Mountain and Metro Vancouver to discuss temporary access during construction.</p> <p>SWGs have been established with Metro Vancouver to review Metro Vancouver’s infrastructure and environmental plans related to the Brunette Greenway in Burnaby.</p> <p>Metro Vancouver was notified about the consultation window for the Environment Plans on September 23, 2016 and December 12, 2016. Topic for future TWG meetings in Q1 2018.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		<p>(LRBW) for all proposed isolated trenched crossings of fish bearing watercourses within the Lower Mainland, conducting fish salvages where there is known or potential fish presence within the Project footprint, and water quality monitoring where high sensitivity fish habitat may be present. Conservative LRBWs have also been applied to protect salmonid species and/or other species of risk where they may have potential to occur, regardless of whether or not they were captured within the Local Study Area during Trans Mountain field investigations. In addition, impacts to functional riparian habitat will be avoided or minimized by limiting disturbances to riparian areas and implementing minimum riparian setback distances for temporary and permanent facilities. Mitigation and restoration measures considered in the assessment for fish, fish habitat, and surface water quality are provided in Table 7.2.7-2 of Section 7.2.7 of Volume 5A ESA – Biophysical (TERA December 2013; Filing ID A3S1Q9) and the Pipeline EPP (Volume 6B; Filing ID A3S2S3).</p> <p>Additional site-specific mitigation measures will also be applied to watercourses identified as proposed critical habitat or potential habitat for species at risk. For details on site-specific mitigation for species at risk, please refer to Sections 10.1 and 10.3 of Supplemental Fisheries (BC) Technical Report (Triton Environmental Consultants 2014) This supplemental technical report was recently provided to the National Energy Board (NEB) and is available as an attachment to NEB IR No. 3.039a (NEB IR No. 3.039a – Attachment 1;</p>	

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Filing ID A4H1Z2).</p> <p>Trans Mountain is committed to meeting NEB Condition 3 - Environmental protection, NEB Condition 13 - Socio-Economic Effects Monitoring Plan, NEB Condition 44 - Wildlife Species at Risk Mitigation and Habitat Restoration Plans, NEB Condition 75 - Nooksack Dace and Salish Sucker Management Plan.</p> <p>On several occasions, including at the February 8, 2017 TWG meeting, Trans Mountain has confirmed verbally and in writing its commitment to use the Mayfair CP Rail siding as temporary workspace for the Fraser River trenchless crossing. As our design proceeds we will confirm access, however we commit to restricting access to existing disturbed areas such as the rail siding or existing roadways.</p> <p>At the February 8, 2017 meeting, Trans Mountain also provided an update that it planned to file the detailed route for Surrey, indicating its preferred route south of South Fraser Perimeter Road in Surrey, outside of Surrey Bend Park. Metro Vancouver indicated their satisfaction with this outcome. Trans Mountain filed the detailed route for Surrey, as well as NEB Condition 7 – Environmental and socio-economic assessment – route re-alignments for Surrey Bend Regional Park on March 17, 2017.</p> <p>At the February 8, 2017 meeting Trans Mountain reviewed routing and construction methodology through the Brunette Greenway in Burnaby. Further discussions through the TWGs and sub-groups are planned to review Metro</p>	

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Vancouver’s infrastructure and environmental plans related to this area.</p> <p>Trans Mountain’s draft EPPs will be posted on its website for comment. Stakeholders are invited to provide their feedback through the website and TWG discussion during the consultation window for each plan.</p>	
<p>Metro Vancouver</p>	<p>Increase of Green House Gas emissions as a result of the Project.</p>	<p>The ESA concluded that the residual environmental effects of increased Project-related marine vessel traffic on marine GHG emissions will not be significant.</p> <p>For more details of the assessment, see exhibit B18-29 - V8A 4.2.12.2 TO T5.2.2 MAR TRANS ASSESS (December 17, 2013) (A3S4Y3), 8A-272.</p> <p>Trans Mountain is committed to meeting NEB Condition 140 - Post-construction greenhouse gas assessment report and NEB Condition 142 - Greenhouse Gas Emissions Offset Plan – Project construction.</p> <p>As per NEB Condition 142, the Trans Mountain Expansion Project will be the first pipeline in Canada required by the National Energy Board to offset all direct GHG emissions generated from Project construction. Building a new pipeline will generate emissions Trans Mountain can’t mitigate. Trans Mountain will take responsibility for these emissions by developing a carbon management plan for Project construction that will incorporate a variety of initiatives, including investments in carbon offset projects.</p>	<p>Complete.</p>

Municipality	Issue/Concern	Response/Outcome	Status
Metro Vancouver	<ul style="list-style-type: none"> • Pipeline and / or spill Impacts on liquid waste infrastructure. • Impacts of construction to Coquitlam Landfill. • Construction impacts to infrastructure and services including pipeline and tanker impacts on existing water infrastructure. 	<p>Trans Mountain has engaged specialized engineering consultants recommended by Metro Vancouver to provide advice on TMEP crossing the methane collection system in place throughout Eaglequest (Coquitlam landfill site) and along the United Boulevard corridor.</p> <p>Trans Mountain has engaged BGC Engineering to investigate geotechnical recommendations to avoid differential settlement.</p> <p>The rip rap encasing protecting Metro Vancouver water lines are part of a number of factor limiting the width of the channel at Second Narrows for transiting tankers. The VFPA Movement Restricted Area rules for Second Narrows define the allowable beam (i.e., width) and draft (i.e., depth) of tankers in relation with the channel. Tankers have to maintain an under keel clearance of 10% over a channel width of 2.85 times the vessel's beam and are restricted to daylight transit. Since the center of the Second Narrows channel is relatively deep in comparison to the vessel's draft, it is typically the width of the channel that determines the allowable draft and therefore the extent to which a tanker can be loaded. The effect of the draft restrictions on cargo capacity were taken into consideration by Trans Mountain when estimating the extent of tanker traffic that might result from the Project Draft restrictions and under keel clearance requirements are explained in section 2.1.4 of Volume 8A (Filing ID A3S4X4).</p> <p>Trans Mountain is committed to meeting NEB Condition 14 - Technical working group – Terms of Reference, NEB Condition 49 - Technical</p>	<p>In progress.</p> <p>Construction related topics for future TWG or SWG meetings in Q1 2018. Trans Mountain can arrange for an Emergency Management presentation on request.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		<p>working group reports, NEB Condition 93 - Water well inventory, NEB Condition 94 - Consultation reports – protection of municipal water sources, NEB Condition 130 - Groundwater Monitoring Program.</p> <p>Topics for future TWG or subgroup meetings.</p>	
Metro Vancouver	Current construction schedule may impact concurrent solid waste construction projects in Metro Vancouver.	<p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project to share information and seek input to our detailed construction plans to minimize impact to neighbours during construction.</p> <p>Topic for future TWG or subgroup meetings.</p>	In progress.
Regional District of Fraser-Fort George/ Village of Valemount	Permits: Trans Mountain will require a Development Permit for Development Permit Areas to ensure protection of the natural environment, enable safe development in areas	Conversation will continue at future TWG meetings in Q4 2017 or Q1 2018.	<p>In progress. A temporary use Permit was issued on September 12, 2017 by the Village of Valemount for the camp location.</p> <p>Topic was discussed at a TWG Meeting on July 19, 2017 followed by a site visit to the proposed work camp with the Village of Valemount on July 25, 2017 to discuss further details of utility services and opportunities available.</p> <p>Trans Mountain confirmed the permit application for temporary use of the airport is no longer</p>

Municipality	Issue/Concern	Response/Outcome	Status
	<p>which may be subject to wildfire hazards, and establish form and character of commercial and multi-family development.</p> <p>The proposed Utility Complex may require a Zoning Bylaw Amendment or Temporary Use Permit.</p> <p>Construction camps/worker accommodation, offices, warehouses and stock yards will require a Zoning Bylaw Amendment or Temporary Use Permit.</p> <p>Building permit requirements.</p>		<p>required. Site 1 (stockpile site) will require a permit and Trans Mountain will work with the Regional District on this process. Trans Mountain will work directly with the Village of Valemount on the permit process for the workforce camp.</p> <p>The Regional District has no concerns about permit process at this time. Permitting will be a topic for future TWG and SWG meetings, as required.</p> <p>A Temporary Use Permit for the camp location was obtained from the Village of Valemount on September 12, 2019.</p>
<p>Regional District of Fraser-Fort George/ Village of Valemount</p>	<p>The Valemount Transfer Station capacity and the need for Trans Mountain to transport waste to the Foothills Landfill in Prince George, or another landfill in another jurisdiction.</p>	<p>Topic for a future TWG meeting.</p>	<p>Complete. Solid waste management was a topic discussed at a TWG Meeting on July 19, 2017.</p> <p>Trans Mountain and the Contractor (Ledcor-Sicim) confirmed the Project does not plan to use local refuse station. Instead will look into whether it makes sense to truck away construction material and camp refuse or provide a local compactor.</p>
<p>Regional District of Fraser-Fort George/ Village of Valemount</p>	<p>Request that KMC cover all costs incurred by the Regional District during a potential pipeline incident.</p>	<p>In the event of an incident along the pipeline, KMC would be the responsible party and will ensure affected parties are compensated appropriately.</p> <p>Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to Kinder Morgan</p>	<p>Out of scope for TWGs.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		Canada Operations.	
Regional District of Fraser-Fort George/ Village of Valemount	Request that Trans Mountain continue public consultation with area residents and the Regional District with regards to technical, operations and maintenance planning updates or changes.	<p>Per NEB Condition 14 – Technical working group – Terms of reference, TWGs will serve as the primarily vehicle for gathering technical information from affected municipalities and to address concerns raised by municipalities so the Project may be constructed in a manner acceptable to affected communities.</p> <p>Discussions related to the existing TMPL or future operations once TMEP is completed, including operations and maintenance topics, will be addressed through discussions with the appropriate KMC representative.</p>	Complete.
Regional District of Fraser-Fort George/ Village of Valemount	Impact of temporary workers, including impact on low income housing.	<p>Trans Mountain is committed to meeting NEB Condition 13 – Socio-Economic Effects Monitoring Plan and NEB Condition 59 – Worker Accommodation Strategy.</p> <p>Topic for a future TWG meeting.</p>	<p>Complete. Topic was discussed at a TWG Meeting on July 19, 2017.</p> <p>Trans Mountain explained the workforce accommodation plan and how approach will be hybrid of full service camp and utilizing local accommodation options. This plan was determined through in person conversations and visits with local business operators. This approach means the Project will not be disrupting normal course of business but will be augmenting local business opportunities.</p> <p>Village of Valemount expressed no major concerns with the plan at this time. A new concern expressed by the Regional District of Fraser Fort George are captured in Table 6.1 below.</p> <p>A follow up meeting between Village CAO, Trans Mountain and the Contractor to further discuss camp specific details took place during a site visit to the camp location on July 25, 2017.</p>
Regional District of Fraser-Fort George/ Village of Valemount	Impacts of construction on community well water quality and lack of sufficient monitoring criteria to enable the Regional District and Valemount to assess these impacts.	Trans Mountain has prepared a Groundwater Management Plan that outlines procedures for identifying potential groundwater related effects of the Project, provides criteria for implementing those procedures, reviews planned mitigation measures and describes monitoring of groundwater quantity and/or quality. The GWMP emphasizes protection of identified vulnerable	Complete. Topic was discussed at a TWG Meeting on July 19, 2017.

Municipality	Issue/Concern	Response/Outcome	Status
		<p>aquifers along the proposed pipeline route.</p> <p>Topic for a future TWG meeting to confirm water intake location(s) and any community water infrastructure.</p>	
<p>Regional District of Fraser-Fort George/ Village of Valemount</p>	<p>Potential impact to Cranberry Marsh area.</p>	<p>There is no interaction between the TMEP and the Cranberry Marsh area, as TMEP routes along the opposite side of the highway.</p>	<p>Complete.</p>
<p>Regional District of Fraser-Fort George/ Village of Valemount</p>	<p>Request to obtain accommodation trailers after construction.</p>	<p>The request will be considered following construction when Trans Mountain and its Contractors have identified the scope of Project assets for disposal.</p>	<p>In progress. Trans Mountain acknowledges the Village of Valemount request. A decision regarding dispersal of Project assets will be deferred until the post-construction period.</p>
<p>Regional District of Fraser-Fort George/ Village of Valemount</p>	<p>Request to consult with fire department when camp site and details have been determined.</p>	<p>Topic for a future TWG meeting once camp locations have been confirmed.</p>	<p>In progress. Initial notification to the Village of Valemount has been provided. Follow-up conversation with the Fire Department will continue in Q4 2017.</p>
<p>Regional District of Fraser-Fort George/ Village of Valemount</p>	<p>Water supply at the old mill site is limited - if used as a camp location.</p>	<p>Topic for a future TWG meeting once camp locations have been confirmed.</p>	<p>Complete. The old mill site is no longer being considered as a possible camp location.</p>
<p>Regional District of</p>	<p>The Community Forests group will need to be</p>	<p>Topic for a future TWG meeting once camp</p>	<p>Complete. The old mill site is no longer being considered as a possible camp location.</p>

Municipality	Issue/Concern	Response/Outcome	Status
Fraser-Fort George/ Village of Valemount	contacted if the mill site is going to be used for a camp as they purchased the site and planning to develop it.	locations have been confirmed.	
Regional District of Fraser-Fort George/ Village of Valemount	Ensure emergency vehicle movement is not impacted by construction.	<p>Trans Mountain is committed to meeting NEB Condition 73 – Traffic control plan for public roadways.</p> <p>Trans Mountain will provide an update on this topic at a future TWG meeting.</p>	Emergency vehicle access will be maintained throughout construction as described in NEB Condition 73 – Traffic Control Plan for Public Roadways.
Regional District of Fraser-Fort George/ Village of Valemount	Provide notification of when back country roads will be impacted.	<p>Trans Mountain is committed to meeting NEB Condition 73 – Traffic control plan for public roadways.</p> <p>Trans Mountain will provide an update on this topic at a future TWG meeting.</p>	<p>Complete.</p> <p>Trans Mountain met with the Valemount and Area Recreation Development Association and the Yellowhead Outdoor Recreation Association on September 13, 2017 to identify backcountry use of forest service roads and review how to maintain access during construction.</p> <p>Notification regarding construction activity at these locations will be completed as part of the Construction Communications and Notifications Program.</p>
Regional District of Fraser-Fort George/ Village of Valemount	Concern about construction and impacts to landfill site access.	Complete. Access will be maintained throughout construction.	Complete.
Regional District of Fraser-Fort George/ Village of Valemount	In Valemount, Trans Mountain will provide a community orientation for workers that includes backcountry recreation use and community values.	<p>Outside the scope of TWGs.</p> <p>Trans Mountain is also developing a Worker Code of Conduct, which outlines expectations and requirements regarding worker conduct for all people engaged in work activity during construction of the Trans Mountain Expansion</p>	<p>Out of scope for TWGs.</p> <p>Trans Mountain will provide Valemount with the opportunity to provide this information through the development and distribution of a worker Welcome Package.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		Project.	
Regional District of Fraser-Fort George/ Village of Valemount	Work with Valemount and Area Recreation Development Association to address snowmobile trail disruptions from Anchor Loop.	Complete. Resolved in 2013, no further action required.	Complete.
Regional District of Fraser-Fort George/ Village of Valemount	Interest in Community Benefit agreements and economic opportunities (jobs and procurement).	<p>Trans Mountain signed a Community Benefit Agreement with the community of Valemount in February 2015. Agreement Projects are currently under review by the Village of Valemount prior to finalization.</p> <p>Trans Mountain is committed to meeting NEB Condition 11 –Aboriginal, local, and regional skills and business capacity inventory; NEB Condition 12 – Training and Education Monitoring Plan; and NEB Condition 107 – Aboriginal, local and regional employment and business opportunity monitoring reports.</p>	Complete.
Regional District of Fraser-Fort George/ Village of Valemount	Trans Mountain commits to full communication and co-operation with Valemount in coordinating, so as to eliminate or reduce construction disruptions to the Valemount Glacier Destination Resort.	<p>In progress. Construction timelines are unlikely to conflict under current resort development timelines.</p> <p>Topic for a future TWG meeting.</p>	Complete. Construction timelines will not conflict under current resort development timelines (2019).
Regional District of Fraser-Fort George/ Village of Valemount	Trans Mountain will continue to engage with the applicable Fraser-Fort George Regional District and Valemount, including	Trans Mountain agrees to continue to engage with these communities on the Project, and is required to do so by the NEB. Trans Mountain is committed to meeting NEB Condition 14 – Technical working group – Terms of Reference	Complete.

Municipality	Issue/Concern	Response/Outcome	Status
of Valemount	continuing to share updated project information, incorporating input and addressing concerns about the proposed Trans Mountain Expansion Project as they arise.	and NEB Condition 49 – Technical working group – Reports.	
Regional District of Fraser-Fort George/ Village of Valemount	Share construction schedules such that access to essential Village and Regional District-owned property is available during normal business hours if open-cut crossing methods are employed.	Topic for a future TWG meeting.	In progress. Topic for future TWG meetings.
Regional District of Fraser-Fort George/ Village of Valemount	Request for Community Liaison during construction.	Trans Mountain will provide an update on the Community Liaison role at a future TWG meeting.	Complete. Trans Mountain has identified the Community Liaison for Spread 3 and 4. The Contractor will identify a Construction Liaison for the same Spreads.
Thompson-Nicola Regional District	Little Fort: request to relocate or upgrade cemetery access during construction.	Addressed through Trans Mountain's Community Benefits Agreement with the TNRD.	Complete. Trans Mountain will not upgrade this access road for construction.
Thompson-Nicola Regional District	Blackpool: construction timing is related to community park development (community benefit project). Requires coordination for grant purposes.	In progress. Initial construction schedule provided in February 2017. Updates will be required.	Updated schedule will be provided as available in Q1 or Q2 2018.

Municipality	Issue/Concern	Response/Outcome	Status
Thompson-Nicola Regional District	Potential impact to water intake in Black Pines.	Complete. No Project interaction identified.	Complete. Topic was discussed at a TWG Meeting on June 28, 2017. Construction timing may require coordination for a new well but no direct conflict is anticipated related to infrastructure.
Thompson-Nicola Regional District	Utility crossings in Blue River, Vavenby and Black Pines (Blackpool and Little Fort not mentioned).	Topic for a future TWG meeting.	Complete. Topic was discussed at a TWG Meeting on June 28, 2017. Trans Mountain reviewed the crossings with the District and initial discussion is complete.
Thompson-Nicola Regional District	New Black Pines water system will require crossings of ROW to every residence.	Resolved. Trans Mountain and TNRD have confirmed no new infrastructure is required.	Complete.
Thompson-Nicola Regional District	Agricultural Land Reserve (ALR) permits will be supported but will take time to complete.	Resolved. ALR permits will be managed by the Agricultural Land Commission. No permitting requirement for TNRD.	Complete.
Thompson-Nicola Regional District	Trans Mountain will consult with owners and operators of Merritt, Kamloops and Blue River airports as part of Community Readiness Engagement and will continue throughout the Project planning and potential construction phases as more information becomes available.	In progress. Update to be provided in future TWG meeting.	Out of scope for TWG. Conversations with the Blue River Airport operators are ongoing through a parallel process. A verbal update will be provided at a future TWG meeting in Q4 2017 or Q1 2018.
Thompson-Nicola Regional District	Blue River: No construction through Mike Wiegele Heliskiing Resort (MWHS) during winter operating season (November to April).	Resolved. Trans Mountain proposes to complete a horizontal direction drill under the MWHS Resort.	Complete. Topic was discussed at a TWG Meeting on June 28, 2017. Trans Mountain confirmed that the construction schedule has moved to October and that winter operations at the resort will not be impacted.
Thompson-Nicola Regional District	Blue River / Avola: Avoid construction in winter season when economic activity is	Complete. Construction schedule has been shared with local communities.	Complete. The Worker Accommodation Strategy has considered seasonal activity in planning a full camp for Blue River location in order to limit impacts to economic activity.

Municipality	Issue/Concern	Response/Outcome	Status
District	high.	Consultation regarding worker accommodation began in 2013 and is ongoing. Trans Mountain's draft Worker Accommodation Strategy is available for review and comment, and will be reviewed at a future TWG meeting.	
Thompson-Nicola Regional District	Concern about camp water requirements and waste management plans.	Topic for future TWG meeting once camp locations has been confirmed.	In progress. Topic was discussed at a TWG Meeting on June 28, 2017. Trans Mountain confirmed detailed waste management plans will be completed by contractors. Ongoing topic for future TWG Meetings during permitting process in Q4 2017 or Q1 2018.
Thompson-Nicola Regional District	Request to do line review to identify permit requirements, crossings and infrastructure concerns.	In progress. The TNRD has identified Project permit requirements.	Complete. Line review was completed at a TWG Meeting on June 28, 2017.
Township of Langley	Expense and delay associated with Trans Mountain's crossing agreements.	<p>Trans Mountain Operations is committed to investigating how to safely alleviate some local government concerns under a specific work agreement for low risk activities proximal to the proposed pipeline. By addressing the issues, it is anticipated that the costs associated with working around Trans Mountain's infrastructure will be reduced. In concert with this commitment, Trans Mountain met with Township of Langley and reviewed a draft Letter of Clarification regarding working around the pipeline on June 13, 2016.</p> <p>The NEB has established new Damage Prevention Regulations requiring some changes to Trans Mountain policies and guidelines. The Prescribed Area (formerly known as the Safety Zone) described in the earlier legislation has been revised as a result. Trans Mountain will work with the Township to address concerns, where applicable.</p>	<p>Out of scope.</p> <p>KMC Operations met with the Township of Langley on August 22, 2017 to discuss the Damage Prevention Regulations (DPR) and 30 m Prescribed Area. A follow up letter was sent to the Township on September 19, 2017 to provide further clarification on the topic. A copy of this letter is available in Appendix B. KMC Operations will continue to be available for any further discussions on this topic.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		<p>Trans Mountain Operations will continue to work with the Township to mitigate these concerns to every extent possible.</p> <p>Trans Mountain has stated that it is not Trans Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of a net loss, Trans Mountain will meet and discuss upstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to Kinder Morgan Canada Operations.</p>	
Township of Langley	Cost recovery for impacts to the Township's existing and future infrastructure that intersects with the pipeline in the Township's road RoWs.	<p>Trans Mountain has stated that it is not Trans Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain Operations will meet and discuss outstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to Kinder Morgan Canada Operations.</p>	This concern does not relate to technical issues. Out of scope for TWGs.
Township of Langley	<p>Cost impact to Langley for responding to Trans Mountain's infrastructure or emergency-related service needs.</p> <p>Compensation for added reliance on Langley's</p>	<p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project, including ongoing engagement on the EMP, to share information and seek input.</p> <p>In the event of an incident along the pipeline, KMC would be the responsible party and will ensure affected parties are compensated</p>	<p>Out of scope for TWGs.</p> <p>List of Outstanding Issues was discussed at a TWG Meeting on May 1, 2017 and this topic was tabled for future discussions outside of TWGs as it relates to security during construction.</p>

Municipality	Issue/Concern	Response/Outcome	Status
	emergency services	<p>appropriately.</p> <p>This topic is not part of the TWG mandate, but Trans Mountain is open to discussion on this topic outside of TWGs.</p>	
Township of Langley	The Township requested a Crossing Agreement [broad agreement including but not limited to utility crossings, routing, community benefits, crossing impacts, road and utility crossings]	<p>Trans Mountain recognizes the Township is interested in reaching a broad agreement to address key issues related to both TMEP and TMPL. Trans Mountain explained its response in its letter dated October 5, 2016, and reaffirmed commitment to working with the Township to identify and resolve outstanding issues.</p> <p>Trans Mountain’s view is that issues related to TMEP and TMPL require different paths to resolution and have different timelines associated with them. Technical and construction issues related to TMEP will be addressed through the Technical Working Group (TWG) framework, while decisions related to the existing TMPL or future operations once TMEP is completed, including municipal costs, crossing agreement and permitting, will be addressed through discussions with the appropriate KMC representative, as well as meetings convened by the NEB.</p> <p>Trans Mountain has stated that it is not Trans Mountain’s intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain will meet and discuss outstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>This topic is not part of the TWG mandate.</p>	<p>Out of scope for TWGs.</p> <p>While municipal costs of working around the existing and new pipeline are outside the TWG scope, at the Township’s request the Crossing agreement for the expanded pipeline will be part of discussion through TWGs. This topic has been captured under Table 6.1, new issues. The Township agreed to work on a draft crossing agreement and to share the draft with Trans Mountain in Q3 2017.</p>

Municipality	Issue/Concern	Response/Outcome	Status
Township of Langley	<p>Insufficient baseline data on the groundwater, well water and aquifer systems.</p> <p>Monitoring techniques to ensure that impacts from Trans Mountain’s activities to Langley’s water systems are measured and accounted for.</p>	<p>Topic for future TWG meetings.</p> <p>Trans Mountain continues to engage with stakeholders on municipal water source topic. On March 15, 2017, Trans Mountain issued a letter in response to Township of Langley’s concerns about groundwater management, including a technical memo from Waterline Resources Inc., providing a summary of water-related information for the Township of Langley. Trans Mountain has and continues to offer a meeting with Trans Mountain’s technical experts to discuss the groundwater management plan and other related topics of interest.</p>	<p>Complete.</p> <p>Addressed in the following NEB Conditions:</p> <ul style="list-style-type: none"> • NEB Condition 93 - Water well inventory • NEB Condition 94 - Consultation reports – protection of municipal water sources • NEB Condition 130 - Groundwater Monitoring Program <p>A letter regarding groundwater management and a technical memo from Waterline was sent to the Township on March 15, 2017 along with a request to meet. An Environment SWG meeting took place on June 6, 2017 where this topic was discussed in detail with Trans Mountain environment experts.</p> <p>There were no outstanding questions following the meeting and parties agreed the Environment SWG did not need to meet again at this time. Additional follow up, if necessary, could be conducted through email or conference call.</p>
Township of Langley	<p>Pipeline integrity and emergency response measures to protect Langley’s aquifers in the event of a spill.</p>	<p>Trans Mountain continues to engage stakeholders on its EMP. Trans Mountain will invite Township of Langley to future emergency management engagement opportunities and exercises/deployments.</p>	<p>In progress.</p> <p>Topic was addressed at a SWG meeting on June 6, 2017. During operations, Trans Mountain will continue to allocate extensive resources to its pipeline integrity program, which is used to identify and repair anomalies in the pipe before leaks occur. A computational pipeline monitoring (CPM) system is used in combination with other monitoring methods, such as surveillance patrols, regular in-line inspections using smart tools, Control Centre Operator (CCO) monitoring using the supervisory control and data acquisition (SCADA) system, and scheduled line balance calculations. In the unlikely event that released petroleum impacts groundwater, Trans Mountain will implement a remediation program to recover petroleum and treat contaminated water to meet stringent government criteria.</p> <p>Trans Mountain will continue to offer the Township opportunities to participate in emergency response exercises and Community Awareness and Emergency Response (CAER) presentations. Trans Mountain Emergency Management Team will share, and meet with the Township, to gather input for consideration for further refinement of the GRP in 2018 when complete.</p>
Township of Langley	<p>Location, placement and number of remote mainline block valves, enabling shut off of portions of the pipeline to reduce the impact of a</p>	<p>Topic for future TWG meetings.</p> <p>Trans Mountain will provide a list of valve locations at a future TWG meeting. Criteria for valves and valve placement are addressed in</p>	<p>Complete.</p> <p>Information on valves is covered by Condition 16 – Risk assessment, Condition 17 – Valve locations on Line 2, and Condition 18 – Valve locations on Line 1. Trans Mountain provided valve location maps to the Township of Langley in May 2017. Further discussion took place at a TWG</p>

Municipality	Issue/Concern	Response/Outcome	Status
	spill.	Condition 17.	meeting on May 24, 2017 and Trans Mountain explained rationale for valve locations on Lines 1 and 2 at a TWG Meeting on August 28, 2017.
Township of Langley	<p>The Township did not support any of the western alignments through Redwoods Golf Course and asked Trans Mountain to develop an eastern route.</p> <p>The Township requested that 88th Avenue be widened/upgraded by TMEP during construction. Township indicated it will agree to the eastern alignment through the Redwoods Golf course only if this condition is met.</p>	<p>Topic for future TWG meetings.</p> <p>Trans Mountain has been working with stakeholders including the Township of Langley and Redwoods Golf Course management to adjust the pipeline alignment through the golf course to minimize impacts to both the golf course and its neighbours. Trans Mountain developed and refined an eastern alignment through the golf course to minimize disturbance to existing fairways and greens. The routing refinement was shared with the Township in 2016.</p>	<p>In progress.</p> <p>Topic was discussed at TWG Meetings on May 1, 2017, and May 24, 2017 in conjunction with the Township's request for Trans Mountain to widen/upgrade 88th Ave. The Township explained that the road is a major trucking route that the Township has plans to expand in the future to a four-lane configuration. Township is concerned that the current proposed TMEP alignment through the Redwoods golf course along 88th Ave would result in delays and additional costs due to the statutory right-of-way and 30 m prescription (or Safety) zone. Township would require 4 m from the existing property line into the golf course for the road allowance. Township suggested that TMEP could consider moving the alignment further into the golf course or changing the route to avoid any future conflicts with the road expansion to a four-lane configuration, or, if the current alignment is pursued, Township requests that TMEP complete the widening and upgrade of this segment of the road. The Township is not prepared to sign any agreements for land use unless this concern is addressed.</p> <p>At the TWG meeting on August 28, 2017, TMEP advised that it would not be able to complete a review of the Township's request to widen/upgrade a portion of 88th Ave until after the NEB route hearings in the area are complete.</p>
Township of Langley	Site specific mitigation measures regarding three municipal parks affected by the expansion.	Topic for future TWG meetings.	<p>In progress.</p> <p>This topic was discussed at TWG Meeting on May 1, 2017. The Township advised their preference that construction method for two creek crossings be trenchless due to erosion issues.</p> <p>The TMEP Project footprint crosses three Township of Langley Parks</p> <ul style="list-style-type: none"> • Unnamed (KP 1136 to KP 1136.8) Spread 6 • Ponder Park (KP 1141.1 to KP 1141.9; and • Hope Redwoods Park (KP 1150.85 to KP 1151. <p>Hope Redwoods Park will be constructed with a horizontal directional drill (HDD) and no disturbance will occur in the Park. The existing TMPL right-of-way crosses through Unnamed and Ponder Parks. The pipeline in these areas will be constructed using an open cut method that is adjacent to the existing right-of-way; resulting in a wider permanent easement in the parks. The permanent easement will be seeded with low growing grasses and trees will be planted in the working space. TMEP welcomes input from the Township of Langley regarding the plant species</p>

Municipality	Issue/Concern	Response/Outcome	Status
			<p>they would like to see in the parks.</p> <p>Discussions on this topic and construction methodology will continue at future TWG and SWG meetings in Q4 2017 – Q1 2018.</p>
Township of Langley	<p>The need for and costs of additional inspection to ensure potential issues related to erosion control and sedimentation is managed during construction.</p>	<p>Topic for future TWG meetings.</p>	<p>In progress.</p> <p>Trans Mountain is developing erosion and sedimentation control plans. This topic will be included on future TWG and SWG agendas in Q4 2017 – Q1 2018.</p>
Township of Langley	<p>Draft TWG Terms of Reference are too vague and limited in their scope and in the procedures they contemplate.</p>	<p>Trans Mountain has developed the draft Terms of Reference (ToR) based on the requirements and as directed by NEB Condition 14. The goal of the TWGs is to address specific technical and construction issues with each affected municipality. The ToR provide the framework for how Trans Mountain and municipalities will work together to achieve this goal, including identifying the appropriate contacts to participate in TWGs; proposing a method for tracking issues and resolution of concerns; protocols for reporting and communicating with TWG members; and identifying the issues or topics within the TWGs scope and mandate.</p> <p>The intent of the TWGs is to act as a vehicle for discussing topics of mutual interest as they relate to the Trans Mountain Expansion Project (TMEP), and in particular, the tracking and resolution of specific technical and construction issues. As KMC has longstanding relationships with municipalities, any issues or concerns related to the existing Trans Mountain system or future operations once TMEP is completed shall be referred to the appropriate KMC</p>	<p>Complete. Trans Mountain and the Township of Langley agreed to ToR on June 19, 2017. The terms are located in Appendix A.</p>

Municipality	Issue/Concern	Response/Outcome	Status
		<p>representative for action and/or resolution. It is intended for the ToR and TWGs to improve communication, creating opportunities to share information, and resolve concerns within a set timeframe, including those outstanding as confirmed by the Township of Langley.</p> <p>Trans Mountain will review Township's feedback to the draft ToR and provide a response at a future TWG meeting.</p>	
Township of Langley	Trans Mountain did not include the Township's feedback re: draft TWG ToR in Condition 14 filed on February 16, 2017.	Since filing Condition 14, Trans Mountain has received additional feedback from municipalities regarding the draft ToR. Additional feedback received by Trans Mountain regarding the Terms of Reference is included in this report in Section 2.0. This is in addition to feedback filed with Condition 14, and is current as of March 31, 2017. It will be updated as needed as part of future submissions pursuant to Condition 49.	Complete. Trans Mountain and the Township of Langley agreed to Terms of Reference on June 19, 2017. The terms are located in Appendix A.
Township of Langley	The list of outstanding issues for the Township listed in section 3.2.1.14 of the Condition 14 filing related to TWGs is incomplete and omits the impacts and costs of pipeline crossing City's infrastructure.	<p>The intent of the TWGs is to act as a vehicle for discussing topics of mutual interest as they relate to the TMEP, and in particular, the tracking and resolution of specific technical and construction issues. As KMC has longstanding relationships with municipalities, any issues or concerns related to the existing Trans Mountain system or future operations once TMEP is completed shall be referred to the appropriate KMC representative for action and/or resolution. It is intended for the ToR and TWGs to improve communication, creating opportunities to share information, and resolve concerns within a set timeframe, including those outstanding as confirmed by the Township of Langley.</p> <p>Trans Mountain has stated that it is not Trans</p>	Complete. Trans Mountain and the Township of Langley agreed to Terms of Reference on June 19, 2017. The terms are located in Appendix A.

Municipality	Issue/Concern	Response/Outcome	Status
		Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain Operations will meet and discuss outstanding concerns or costs. This applies to both the existing TMPL and the Project.	

TABLE 5.2
UPDATE ON ISSUES AND CONCERNS RAISED BY MUNICIPALITIES IN ALBERTA
BETWEEN OCTOBER 1, 2016 AND MARCH 31, 2017

Municipality	Issue/Concern	Response/Outcome	Status
City of Edmonton	Pipeline alignment and potential conflicts with the ATCO pipeline expansion, and the City of Edmonton's Whitemud Drive expansion.	<p>On February 17, 2017 Trans Mountain filed its Plan, Profile and Book of Reference for Edmonton, as well as a S.21 route re-alignment application for the location of TMEP in relation to the ATCO pipeline (Filing ID A81782).</p> <p>In Edmonton, it is a requirement within the City's Transportation Utility Corridor (TUC) that a new pipeline be within 10m of the previous pipeline built, which is the ATCO natural gas pipeline.</p> <p>These filings confirm Trans Mountain's preferred detailed alignment, so that TMEP will stay aligned and abutted with the newly constructed ATCO pipeline, preventing any gaps between easements, as required by the City.</p>	Complete.
City of Edmonton	Road crossings.	Topic for a future TWG meeting.	In progress. Topic for future TWG meetings in Q4 2017 – Q1 2018.
City of Edmonton	Cost recovery for impacts to the City of Edmonton's existing and future infrastructure that intersects with the pipeline along Whitemud Drive and other road RoWs.	<p>Trans Mountain has stated that it is not Trans Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of a net loss, Trans Mountain will meet and discuss upstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to Kinder Morgan Canada Operations.</p>	This concern does not relate to a technical issue. Out of scope for TWGs.
City of Edmonton	Cost impact to the City of Edmonton for responding to Trans Mountain's infrastructure or emergency-related service needs.	Trans Mountain has stated that it is not Trans Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of net loss, Trans Mountain will meet and discuss outstanding concerns or costs. This applies to both the existing TMPL and the Project.	This concern does not relate to a technical issue. Out of scope for TWGs.

		This topic is not part of the TWG mandate.	
City of Edmonton	Impact to the City of Edmonton related to Trans Mountain's inspection costs.	<p>Trans Mountain has stated that it is not Trans Mountain's intent for the Project to be a financial burden on municipalities. If a local government believes it is in a situation of a net loss, Trans Mountain will meet and discuss upstanding concerns or costs. This applies to both the existing TMPL and the Project.</p> <p>Operations related topics will be addressed outside of TWG process. Trans Mountain has passed this concern on to Kinder Morgan Canada Operations.</p>	This concern does not relate to a technical issue. Out of scope for TWGs.
City of Spruce Grove	Road crossing designs and crossing applications	Topic for a future TWG meeting, if a TWG is formed.	In progress. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.
City of Spruce Grove	Pipeline routing and alignment through Spruce Grove.	On February 17, 2017 Trans Mountain filed its Plan, Profile and Book of Reference for the Edmonton area, confirming its detailed alignment in Spruce Grove (Filing IDs A81784 and A81852).	Complete.
City of Spruce Grove	Upcoming twinning of a water line in 2017 located north of the rail crossing.	Topic for a future TWG meeting, if a TWG is formed.	In progress. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.
Parkland County	Road crossings.	Topic for a future TWG meeting.	<p>In progress. The TWG discussed road crossings at a TWG meeting on June 19, 2017. Specifically, the County is interested in crossings near Gainsford and wants to make sure the new pipeline is below grade.</p> <p>Another TMPL location near trestle creek was also discussed. The TMPL crossing is at the crest of a hill and there's currently limited cover over the existing TMPL. While outside of scope for the TWG, Trans Mountain noted the concern related to Line 1 and it has been passed on to KMC operations for follow up.</p>
Parkland County	Pipeline routing and alignment through Parkland.	On February 17, 2017 Trans Mountain filed its Plan, Profile and Book of Reference for the Edmonton area, confirming its detailed alignment in Parkland County (Filing IDs A81784 and A81852).	Complete.
Parkland County	Design of the Pembina River crossing Horizontal Directional Drill (HDD).	Topic for a future TWG meeting.	Complete. Topic discussed at a TWG meeting on June 19, 2017. Trans Mountain shared design drawings with the County and no additional concerns have been raised. Trans Mountain will

			continue to share design drawings with the County.
Parkland County	Parkland County's new process for wetland identification.	Topic for a future TWG meeting.	In progress. Topic for future TWG meetings in Q4 2017 – Q1 2018.
Parkland County	Potential conflicts with Alberta Transportation's future plans to extend Highway 628 west of Edmonton and realign further to the north, with an interchange at the Highway 60 crossing.	Topic for a future TWG meeting.	In progress. Trans Mountain continues to share design drawings with the County. Topic for future TWG meetings in Q1 2017 – Q1 2018.
Parkland County	Elevation of the existing TMPL.	Topic for a future TWG meeting.	Out of scope for TWGs. The intent of the TWGs is to act as a vehicle for discussing topics of mutual interest as they relate to the TMEP, and in particular, the tracking and resolution of specific technical and construction issues. As KMC has longstanding relationships with municipalities, any issues or concerns related to the existing Trans Mountain system shall be referred to the appropriate KMC representative for action and/or resolution.
Parkland County	Undeveloped road allowances where future development is likely to occur and road allowances where development will not occur.	Topic for a future TWG meeting.	In progress. Topic for future TWG meetings in Q4 2017 – Q1 2018.
Strathcona County	Road crossings.	Topic for a future TWG meeting.	In progress. Topics discussed at a TWG meeting on June 19, 2017 included utility and road crossings, road use agreements, and permit applications process. Topic for future TWG meetings.
Town of Edson	Project scope and construction timing.	Topic for a future TWG meeting, if a TWG is formed.	In progress. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.
Town of Edson	Pre-construction activities such as stock pile site preparation, pipe hauling, and vegetation management.	Topic for a future TWG meeting, if a TWG is formed.	In progress. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.
Town of Edson	Preservation of a walking path and trees along the existing TMPL for about 600m, located west of Edson Drive.	Topic for a future TWG meeting, if a TWG is formed.	In progress. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.

Town of Edson	Crossing agreements and road use permits.	Topic for a future TWG meeting, if a TWG is formed.	In progress. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.
Town of Edson	Worker accommodation plans, including whether a camp will be located in Edson, and other accommodation.	Consultation regarding worker accommodation began in 2013 and is ongoing. Trans Mountain's draft Worker Accommodation Strategy is available for review and comment, and will be reviewed with Edson at a future TWG meeting, if a TWG is formed.	In progress. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.
Town of Hinton	At this time, Trans Mountain is not aware of any issues for resolution via a TWG with the Town of Hinton.	This will be reviewed with the Town at a future TWG meeting.	Complete. The City indicated to Trans Mountain that it is open to establishing a TWG, if required, closer to construction.
Town of Stony Plain	Crossing agreements and road use permits.	Topic for a future TWG meeting, if a TWG is formed.	In progress. First TWG meeting is anticipated in Q1 2018.
Village of Wabamun	Crossing agreements and road use permits.	Topic for a future TWG meeting, if a TWG is formed.	In progress. First TWG meeting is anticipated in Q1 2018.
Yellowhead County	Crossing agreements and road use permits.	Topic for a future TWG meeting, if a TWG is formed.	County has accepted Trans Mountain's invitation to re-form a TWG. Topic was discussed at a TWG meeting on September 6, 2017.

TABLE 6.1
NEW ISSUES AND CONCERNS RAISED BY MUNICIPALITIES IN BC
BETWEEN APRIL 1, 2017 AND SEPTEMBER 30, 2017

Municipality	Issue/Concern	Response/Outcome
City of Abbotsford	Trans Mountain to arrange with the Spread 7 Contractor to provide a Project update related to Sumas Terminal and discuss environmental impacts.	Topic for a future TWG meeting Q4 2017 – Q1 2018.
City of Abbotsford	The City would like a plain language document explaining risk based design.	Topic for a future TWG meeting Q4 2017 – Q1 2018.
City of Abbotsford	The City requests information on communication plans related to tree clearing.	The topic of permitting related to tree clearing was discussed at the TWG meeting on May 31, 2017 and Trans Mountain confirmed its intention to share the Communications and Notification Plan with the City. Trans Mountain expects this plan will be ready to share in Q4 2017.
City of Abbotsford	Interest in the Environmental Protection Plan (EPP) and various environment management plans.	Topic was discussed at TWG meeting on May 31, 2017 and Trans Mountain confirmed the EPP has been out for consultation since November 2016. Future topic for a TWG meeting Q4 2017 – Q1 2018. Trans Mountain to organize a meeting with a member of the environment team to review the Riparian Management Plan with the City.
City of Abbotsford	Public and adjacent landowner complaints process during construction	Topic discussed at a TWG meeting on May 31, 2017. Trans Mountain confirms there will be a Construction Liaison and a Community Liaison for each construction spread. Trans Mountain to share the Communication and Notification Plan with City for input. Trans Mountain expects this plan will be ready to share in Q4 2017.
City of Abbotsford	The City would like a regular presence from Trans Mountain to attend public council meetings during construction to respond to queries from Mayor and Council as well as the public. Trans Mountain to bring this request back to the broader team for consideration.	Future topic at a TWG meeting Q4 2017 – Q1 2018.
City of Abbotsford	The City would like to be added as an additional insured party. Trans Mountain to consider request and provide a response to the City at a future TWG meeting.	Future topic at a TWG meeting Q4 2017 – Q1 2018.
City of Abbotsford	Notification to landowners of impending work. The City would like to understand the radius for landowner notifications.	Topic discussed at a TWG meeting on May 31, 2017. Trans Mountain confirmed that landowners are assigned a land agent who keeps them informed of impending work. Trans Mountain will communicate with landowners in advance of construction beginning; this could be a pre-construction availability for landowners to inform them of upcoming work and potential impacts. Trans Mountain will confirm details via the construction communication plan. Trans Mountain confirmed land agents will be available on site to deal with directly impacted property owners to relocate them if necessary.

City of Abbotsford	The City is concerned about potential hardship as mitigation measures, such as those outlined in the EPP, are implemented.	Topic discussed at a TWG meeting on May 31, 2017. Trans Mountain reiterated that EPPs have been available for review and input for some time; however, Trans Mountain recognizes that there have been significant staffing changes within the City. Trans Mountain is always willing to have conversations about any aspects of its Project to provide clarity. The City agreed to provide any concerns related to filed management plans to Trans Mountain for discussion.
City of Abbotsford	The City expressed concern over temporary workspace areas, as the extent of workspace has not been clearly explained and provided. The City is concerned about impacts of proposed workspace, for example, tree removal. The Section 34 notices received by the City do not provide the information that the City requires to provide adequate feedback.	Topic for a future TWG meeting Q4 2017 – Q1 2018. Trans Mountain and its Contractor to work with the City to address concerns in relation to construction and temporary workspace on City owned lands.
City of Abbotsford	The City expressed concern over Temporary Workspace areas given lack of information provided.	Topic for a future TWG meeting Q4 2017 – Q1 2018. Trans Mountain's Contractor will work with the City to address concerns in relation to construction and temporary work space on City owned lands.
City of Burnaby	Revisions to ToR.	Trans Mountain appreciates the City outlining their proposed revisions to the ToR. Final copy was accepted by TWG members at a TWG meeting on September 6, 2017 and signed off by Trans Mountain's Executive Sponsor on September 21, 2017; a copy of these terms is located in Appendix A.
City of Burnaby	Review list of applicable City of Burnaby permits. Permit applications must be directed to the TWG meetings per City of Burnaby's request.	Trans Mountain provided to the City a list of city permits along with highlights of the permits that Trans Mountain considers applicable for compliance submissions at a pre-TWG meeting on May 5, 2017. Topic for SWG meeting once feedback from the City of Burnaby is received on PPA applications.
City of Burnaby	Concern that the TWG meeting summary is different from the notes captured by the City at the same meeting.	Trans Mountain confirmed that the purpose of circulating the meeting summary is to ensure an accurate record agreed to by both parties. Edits are welcomed. Where points of disagreement exist, these will be documented. Trans Mountain further confirmed that the meeting summaries are intended to capture key interests, points of agreement and disagreement, and action items. Trans Mountain re-circulated the May 2017 meeting summary with the revisions noted.
City of Burnaby	TWG Meeting Summaries should be documented as pre-TWG Meeting Summaries until ToR are agreed to.	Complete. Trans Mountain agreed to edit Meeting Summaries to indicate Pre-TWG meeting status until both parties are in agreement on the ToR. TORs finalized on September 21, 2017. A copy of these terms is located in Appendix A.
City of Burnaby	Concerns related to traffic management around Westridge Marine Terminal and Burnaby Terminal: <ul style="list-style-type: none"> Alternative options for traffic management with respect to proposed 	Traffic management was a topic at a pre-TWG meeting on May 3, 2017. Trans Mountain provided an overview of the Traffic Management Plan and answered questions from city staff. The group agreed to table topic for future TWG and SWG meetings.

	<p>Gaglardi access</p> <ul style="list-style-type: none"> Concern about impacts on Forest Grove and Sperling neighbourhoods and security 	<p>City of Burnaby identified priorities for SWG meetings are to discuss access to and from the terminals. A traffic management update is on the draft agenda for October 11, 2017 TWG meeting.</p>
City of Burnaby	<p>List of outstanding concerns & environmental protection plans should be deferred to future agendas.</p>	<p>Trans Mountain agrees to defer the confirmation list of outstanding concerns, EPPs to future TWG agendas. Future TWG meeting topic Q4 2017 – Q1 2018.</p>
City of Burnaby	<p>Review crossings.</p>	<p>Initial conversation took place at June 5, 2017 pre-TWG meeting. Agreement to defer to post NEB Route Hearing decision. Future TWG meeting topic.</p>
City of Burnaby	<p>Kask site is part of NEB approval and can be submitted to the City as a permit package.</p>	<p>Trans Mountain provided confirmation in a letter to the City dated May 30, 2017. A copy of this letter is located in Appendix B.</p>
City of Burnaby	<p>Establish subgroup meetings to continue discussions on additional topics.</p>	<p>Trans Mountain confirmed sub-group meeting topics in a pre-TWG meeting on July 5, 2017. Both parties agreed to the following SWGs:</p> <ul style="list-style-type: none"> Traffic Utility crossings Emergency management Restoration PPAs) Eagles nest relocation Terminal access (added during July 5, 2017 pre-TWG)
City of Burnaby	<p>Additional information about Westridge Eagles Nest proposed alternate location.</p>	<p>A SWG meeting was held on August 22, 2017 to discuss the relocation of an eagles nest at Westridge Marine Terminal. The City provided permission to Trans Mountain to install an alternate nest platform and nesting materials in a tree on City property. Monitoring and discussions are ongoing related to this topic.</p>
City of Burnaby	<p>Investigate using KMC-owned Shell 16 inch pipeline corridor for TMEP to cross Shellmont Street; and abandonment of KMC-owned Shell 16 inch pipeline.</p>	<p>Initial conversation took place at June 27, 2017 pre-TWG meeting followed by subsequent discussion at a pre-TWG meeting on July 27, 2017.</p> <p>Trans Mountain advised abandonment would require separate application to NEB and slight re-route to run through trench. Group agreed to defer until NEB route hearing process is complete and revisit once a final route is determined.</p> <p>Future TWG meeting topic Q4 2017 – Q1 2018.</p>
City of Burnaby	<p>Add to future agendas: Pipeline between terminals; marine traffic related to process of docking at terminals; air emissions; confirm list of outstanding</p>	<p>All topics complete except confirming list of outstanding issues. For discussion at future TWG meeting</p>

	issues.	Q4 2017 – Q1 2018.
City of Burnaby	Trans Mountain to provide City of Burnaby with a copy of final forestry pipeline corridor site visit report once complete	In progress. Reports scheduled to be completed in Q4 2017.
City of Burnaby	TMEP provide City of Burnaby with additional information requested (air photo indicating legal property boundaries and access points) to permit emergency management land access request.	Complete. Topic was discussed at a pre-TWG meeting on June 27, 2017 and July 27, 2017. Trans Mountain provided background to requests for land access to confirm or adapt Geographic Response Plan (GRP) Control Point locations. There are a total of 14 locations on City of Burnaby land for non-invasive survey that KMC would like to visit in late July 2017 with City permission. City confirmed approval for all locations. Site visits complete. Trans Mountain committed to providing City of Burnaby with reports on outcomes of GRP Field Work once completed.
City of Burnaby	Provide NEB Order numbers regarding approval of relocation work planned for August.	Complete. Trans Mountain sent an email on July 24, 2017 to the City.
City of Burnaby	The City wants to understand the rationale for alignment of crossings and is interested in details of where the flexes could be the City wants to review the Gagardi crossing and the North Road crossing.	The group agreed at a pre-TWG meeting on May 3, 2017 to table this topic for a future TWG or SWG meeting. Trans Mountain reviewed crossings with the City at a pre-TWG meeting on June 27, 2017 and addressed questions and concerns around trenchless construction methodology, tree removals, and the Shell Burmount Terminal. Initial conversation is underway; however, further discussion required once detailed alignment approved by NEB.
City of Burnaby	Emergency management, specifically NEB Condition 123 Evacuation Plans and NEB Condition 118 Firefighting capacity.	The group agreed at a pre-TWG meeting on May 3, 2017 and June 27, 2017 to table topics for future TWG meetings and establish a SWG meeting to continue discussion about mass evacuation planning and firefighting capacity. Trans Mountain has been having conversations with Simon Fraser University regarding evacuation planning and has worked on an Evaluation Plan with them. Trans Mountain would like to have the City participate in an upcoming SWG meeting with SFU in order for all three parties to work together on a mass evacuation exercise in 2018. The City advised that under the Evacuation Plan #123, the City is the only one who can announce an evacuation. Trans Mountain would like the City to be part of discussions related to Evacuation Plans for the site.

City of Burnaby	The City is concerned that there is a lack of understanding of special requirements related to pipeline construction methodology.	Future TWG agenda topic Q4 2017 – Q1 2018.
City of Burnaby	The City of Burnaby is interested in further information about: <ul style="list-style-type: none"> • Route alignment rationale and detail to determine where flexibility may exist • Detailed route alignment • Construction methodology 	Topics discussed at a pre-TWG meeting on July 5, 2017. Further discussion at future TWG meetings Q4 2017 – Q1 2018.
City of Burnaby	Provide distance (measurement) between Westridge Marine Terminal and Dynamite Creek.	Future TWG agenda topic Q4 2017 – Q1 2018.
City of Chilliwack	City requested in its filed letter to the NEB the following conditions be applied to the expansion Project: <ol style="list-style-type: none"> 1) Documentation that there is no possibility of proceeding with alternate route P1 and details of the route P1 mitigation alternatives considered to protect the drinking water source for 76,000 residents 2) That the depth of the new pipeline be limited to a maximum of 2 m below the existing surface 3) Require the pipeline design and construction methods that both reduces impacts to homes and properties and safe guards their drinking water source 4) Require automated vapour monitoring to be added to the suite of leak detection measures, with monitoring locations as agreed upon by the City 5) Require the monitoring and spill response plans be developed in close cooperation with and to the satisfaction of the City 	Complete. Trans Mountain responded in a letter dated May 1, 2017. A copy of this letter can be found in Appendix B.
City of Chilliwack	City requested an explanation of routing through Browne Creek Wetland.	Complete. Trans Mountain responded in a letter dated May 1, 2017. A copy of this letter can be found in Appendix B.
City of Chilliwack	City requested information on why Trans Mountain did not pursue routing to Highway 1. City also requested a re-route around Browne Creek Wetlands.	Complete. Trans Mountain provided a response to the Highway 1 routing investigation in its letter to the City dated February 15, 2017. Trans Mountain provided a response to the City regarding measures to protect Browne Creek Wetlands in its letter dated February 28, 2017. Trans Mountain plans to route within its existing right-of-way.
City of Chilliwack	City requested an un-redacted version of the BC Hydro Report.	Complete. Trans Mountain addressed this concern in its letter dated June 6, 2017, stating BC Hydro holds the rights to the BC Hydro Study and it is our understanding that BC Hydro has offered to provide an un-redacted copy to the City of Chilliwack. A copy of this letter is located in Appendix B.

City of Chilliwack	City requested a formal explanation of why Trans Mountain has rejected the City's request for vapour monitoring.	Complete. Trans Mountain provided a response in letters dated May 1, 2017 and June 6, 2017. Copies of these letters can be found in Appendix B.
City of Chilliwack	Trans Mountain to provide updated construction information as it becomes available.	In progress. Ongoing topic for future TWG meetings Q4 2017 – Q1 2018.
City of Coquitlam	City of Coquitlam requested that KLTP complete traffic counts in United Boulevard area	Complete. The traffic analysis at United Boulevard, Hartley Avenue, and Rogers Avenue is complete. The report is being developed then signal timing estimates will be determined. Information will be shared at future TWG meetings Q4 2017 – Q1 2018.
City of Coquitlam	City of Coquitlam would like to review erosion control measures and Pipeline EPP	Erosion control measures are outlined in the Pipeline EPP plan. Future SWG meeting topic to review site specific Erosion and Sediment Control Plans with the City of Coquitlam in Q4 2017.
City of Coquitlam	Pipeline is buried at 2 m depth through the United Boulevard area. City requested to review the burial depth of pipeline so it does not interfere with City of Coquitlam infrastructure.	Ongoing topic at TWG and SWG meetings. Trans Mountain and the Contractor discussed pipeline depths at TWG meeting on May 16, 2017. Trans Mountain is planning on the pipeline being 2 m deep at most locations. Trans Mountain has every intention to minimize impact to City's infrastructure by crossing underneath utilities. Final design and crossing drawings were discussed at the May 16, 2017 TWG meeting and will continue through Utility SWG meetings. KLTP will complete a utility locate program by Q1 2018 and address the burial depth of the pipeline within final design.
City of Coquitlam	Staging areas on Rogers Avenue, Hartley Avenue, and United Boulevard.	Trans Mountain and the Contractor discussed aspects of the Traffic Management Plan for each scheduled full closure and detour with the City of Coquitlam at the Traffic Management SWG meeting on June 5, 2017. Staging areas will continue to be discussed at future TWG and SWG meetings.
City of Coquitlam	Traffic management, business and emergency access: City of Coquitlam requires a list of proposed traffic management plans and construction methodologies throughout City. Traffic Management needs to include provisions for emergency response times. Traffic Management plans should consider MOTI impacts at Mary Hill Bypass and Brunette Highway. City of Coquitlam has concerns re: methane readings and would like to discuss	Trans Mountain and the Contractor discussed the Traffic Management Plan with the City of Coquitlam at a TWG meeting on May 16, 2017. The Plan was available for feedback online until May 21. This plan provides the overall approach and has a list of key locations. KLTP is developing site specific traffic management plans. KLTP reviewed aspects of the Traffic Management Plans for each scheduled full closure and detour during the SWG meeting on June 5, 2017 including United Boulevard, Hartley Avenue and Rogers Avenue. KLTP will submit Traffic Management plans to the City and also review the emergency

	<p>fire response plan in a SWG.</p> <p>City noted that many businesses only have one driveway access. It is City's understanding that during construction, KLTP will want to close accesses for a period of time, and utilize driveways to other businesses, and the parking lot areas and internal connections to provide access to all businesses (albeit indirect). This needs to be communicated to affected businesses and they will need to agree to this scenario.</p>	<p>response times; if these are not achievable, a temporary fire or emergency station may be required.</p> <p>KLTP will share Traffic Management plans for MOTI locations within the City of Coquitlam. KLTP will set up a meeting with City of Coquitlam Fire to discuss methane readings and Fire response plan in January 2018.</p> <p>Trans Mountain/KLTP will engage with local businesses to understand impacts, access and peak hours in Q4 2017.</p>
City of Coquitlam	<p>City of Coquitlam has concerns about potential removal of street trees (mature trees between the curb and sidewalk on Hartley Avenue and Rogers Avenue); need to determine acceptable offset distance between the pipeline and trees.</p>	<p>Complete. Trans Mountain and its Contractor discussed restoration requirements over the pipeline in city streets and tree removal at TWG meetings on May 16, 2017 and July 18, 2017. Trans Mountain and KLTP reviewed distance from pipeline alignment to existing trees to determine what trees are potentially required for removal prior to construction then prepared a tree management plan specific to this area. The plan was shared prior to a site visit with all parties on August 29, 2017.</p> <p>At the September 12, 2017 TWG meeting, parties agreed a city representative will be on site for tree work.</p>
City of Coquitlam	<p>City of Coquitlam requested pre and post construction video inspections of all storm and sanitary service connections that may be affected by crossings (crossing or running parallel).</p>	<p>Trans Mountain and its Contractor discussed this topic with the City of Coquitlam at a TWG meeting on September 12, 2017. KLTP will coordinate video inspections prior to the start of construction in Q1 2018.</p>
City of Coquitlam	<p>Process for cost recovery for the City inspectors.</p>	<p>Complete. The City indicated that a part time inspector will be required when working near City's infrastructure and only actual costs will be charged during construction.</p>
City of Coquitlam	<p>In view of Coquitlam's status as a Bear Smart certified community, the City asked TMEP to consider one larger culvert versus three smaller culverts in the area between Fraser River HDD crossing exit and United Boulevard business area to allow for wildlife crossing.</p>	<p>In progress. Trans Mountain is reviewing the culvert design and will provide an update to the City through the TWG in Q4 2017.</p>
City of Coquitlam	<p>City of Coquitlam requested an update re: the TMEP Communication and Notification Plan.</p>	<p>Communication and Notification Plan will be provided to the City in Q4 2017. Trans Mountain will set up a SWG meeting to discuss the plan.</p>
City of Coquitlam	<p>Beedie Development Group requested that KLTP explore options for re-aligning TMEP alignment into city street to mitigate conflict to their proposed development.</p>	<p>Trans Mountain will complete a traffic study at King Edward and United Boulevard and share it with the City in Q4 2017.</p> <p>Future TWG agenda topic Q4 2017 – Q1 2018.</p>
City of Coquitlam	<p>Through the regulatory process, Trans Mountain committed to working with City of Coquitlam in developing and executing a protocol agreement for</p>	<p>City of Coquitlam will discuss internally and provide an update to Trans Mountain by the next TWG in Q4 2017.</p>

	construction of the TMEP within Coquitlam.	
City of Surrey	The City expressed concern about tree removal and reduction of green space. The City of Surrey would like to see less tree removal in an effort to keep as much green space as possible.	<p>Trans Mountain and its Contractor clarified that tree removal for the open cut sections in the Fraser Heights area has been reduced to 24 m from the 40 m initially proposed. Reclamation following construction will include replanting in 14 m of temporary work space, with 10 m of the permanent right-of-way (ROW) revegetated with grass and lower growing plants. Tree removal in the areas with Horizontal Directional Drills (HDD) will be minimal to ensure access for maintenance and emergency response when the pipeline is operational.</p> <p>Trans Mountain reviewed a draft tree management plan with the City in the August 3, 2017 SWG meeting. As per the City's request, Trans Mountain will complete a wind throw and danger tree assessment in Q4 2017.</p>
City of Surrey	<p>The City of Surrey is interested in truck access, traffic detours and access to bike/pedestrian paths during construction.</p> <p>The City asked TMEP to share Traffic Management details with residents in Fraser Heights in advance, because the proposed main route in and out of the area goes through several school zones.</p>	<p>Discussions of traffic management and access control plans occurred at SWG meetings (June 28, July 19 2017)</p> <p>Traffic management and Traffic Control Plans will continue to be discussed at future Traffic SWG meetings in Q4 2017.</p> <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the Project, including ongoing engagement with neighbours (including businesses) to share information and seek input to our detailed construction plans to minimize impact to neighbours during construction. Trans Mountain held a bilingual (Mandarin) information session in Fraser Heights on June 27, 2017 and an update to Fraser Heights Community Association on June 29, 2017. Future outreach is planned for the fall of 2017 and early 2018.</p>
City of Surrey	City requested to see more detail on construction methodology drawings (e.g. property lines, working zones and trench lines, etc.).	Complete. Trans Mountain discussed this topic during a TWG meeting on June 7, 2017 and provided detailed drawings to the City on August 22, 2017 via email and also provided the same information on a flash drive on August 30, 2017.
City of Surrey	City is concerned about impacts to residents who may lose the visual tree buffer on the Fraser Heights slope. The City requested routing rationale from Trans Mountain regarding the benefits of the current alignment vs. bottom of the Fraser Heights slope.	<p>Complete. Per the City's request, Trans Mountain provided written rationale (by email) on September 8, 2017 supporting the current TMEP pipeline alignment between Golden Ears Connector (GEC) and Port Mann Bridge to the City of Surrey subject to Condition 7.</p> <p>This rationale included a recap of Trans Mountain's route selection process in Surrey dating back to 2012 when engagement with landowners, Aboriginal groups, local governments and members of the community began. Extensive engagement and consideration was given to the concerns and issues raised as acknowledged in NEB's Report recommending the Project (A77045) "Trans Mountain's route selection process, route selection criteria, and level of detail for its alternative means assessment are appropriate" (p. 244).</p>

		<p>In March 2017, Trans Mountain submitted Condition 7 – Environmental and Socio-economic Assessment – Route Re-alignments to the NEB. The SFPR reroute is subject to approval by the NEB, agreement by BC Ministry of Transportation & Infrastructure (MOTI) and subject to completion of additional geotechnical studies.</p> <p>The current route alignment that generally runs along the south side of GEC and SFPR to the Fraser River crossing, avoiding the Surrey Bend Regional Park, is the optimal route that most meets Trans Mountain’s routing criteria and addresses concerns from key stakeholders, including the City of Surrey, environmental groups and landowners.</p> <p>This route utilizes three HDDs providing the following benefits:</p> <ul style="list-style-type: none"> • reduces construction footprint and surface impact during construction; • reduces impacts to: <ul style="list-style-type: none"> ○ defined wetlands ○ critical habitat for species at risk as well as other terrestrial wildlife ○ residents and City’s parkland by significantly reducing the area where tree removal is required and maintaining visual screening for residents from railway and SPFR • avoids challenging terrain. <p>Trans Mountain continues to engage with stakeholders around multiple aspects of the proposed Project to share information and seek input.</p> <p>Trans Mountain values the positive working relationship with the City and remains committed to working together to resolve any outstanding concerns and minimize any potential impacts from the Project to the extent practical. Pipeline alignment through Surrey including SFPR re-route will continue to be discussed through TWGs.</p>
<p>City of Surrey</p>	<p>The City is concerned about wind throw issues on City park land due to vegetation removal and requested Trans Mountain provide a wind throw report conducted by a Registered Professional Forester where tree removals are planned adjacent to City lands.</p>	<p>Trans Mountain will prepare a wind throw and danger tree assessment report in or around Q4 2017. As requested by the City of Surrey, the report will be prepared by a Registered Professional Forester.</p> <p>In the meantime, discussions continue at TWG Meetings and Trans Mountain provided the LiDAR high-level maps showing the areas that will be field-assessed in the near future for danger trees and wind throw potential.</p>
<p>City of Surrey</p>	<p>The City of Surrey requested Trans Mountain align the pipe with a proposed multiuse path (MUP) where possible.</p>	<p>Trans Mountain and the City of Surrey discussed the MUP at the SWG meeting on June 28, 2017 and reviewed an overlay drawing at the TWG meeting on July 19, 2017.</p> <p>MUP will continue to be addressed as an agenda topic at future TWG meetings in Q4 2017 – Q1 2018.</p>

City of Surrey	Main access during construction through the Fraser Heights neighbourhood. The City is concerned the utility ROWs are not designed for heavy vehicles and equipment and wants to ensure protection of underground utilities. The City is interested in truck traffic volume expected.	Trans Mountain presented preliminary planning for access in and out of Fraser Heights for feedback at the SWG meeting on June 28, 2017. Trans Mountain continues to address concerns related to access points off the SFPR Highway and Highway 17 and construction truck traffic volume. Topic for further discussion at future TWG meetings and SWG meetings.
City of Surrey	The City would like Trans Mountain to consider reducing construction footprint at the intersection of Golden Ears Connector and Golden Ears Way.	In progress. Topic for further discussion at future TWG meetings and SWG meetings.
City of Surrey	City of Surrey requested Trans Mountain provide a cross section showing the right-of-way and SFPR Highway for the open cut section along Fraser Heights slope.	Complete. Trans Mountain and the Contractor developed an open cut cross section and reviewed at the July 19, 2017 TWG meeting.
City of Surrey	TMEP alignment through the Vesta development site.	Trans Mountain is discussing potential opportunities to adjust the pipeline alignment through the Vesta development site with Vesta properties and the City of Surrey. Further discussion will take place at future TWG and SWG meetings in Q4 2017.
City of Surrey	City is concerned about impacts to existing infrastructure including sanitary and storm drains on 112 Ave. The City requests Trans Mountain and the Contractor review underground utilities when working near roads.	Trans Mountain and the Contractor will take necessary precautions and protect with mats if needed. The Contractor will also complete a utility locate program prior to construction as well as pre- and post-construction video inspections.
City of Surrey	City prefers the pipeline is not located above existing utilities. The City notes that if it is not feasible for Trans Mountain to construct the pipeline below existing utilities it may consider a variance if there is sufficient backup.	Trans Mountain and KLTP will review the City's utilities and explore design options to avoid impact to City infrastructure by staying below utilities where practical. Future TWG agenda topic Q4 2017 – Q1 2018.
City of Surrey	The City of Surrey identified a potential conflict with Trans Mountain pipeline alignment at a new sanitation pump station proposed at 182a Street.	Future TWG agenda topic Q4 2017 – Q1 2018.
City of Surrey	Noise impacts from Fraser River HDD on residents located on the Fraser Heights slopes.	Trans Mountain discussed the high level Noise Mitigation Plan with the City of Surrey. The plan outlines various mitigation efforts including sound walls and position of equipment. HDD areas will require 24/7 work. A site-specific HDD noise management plan will be developed for the three HDDs in Fraser Heights as required by NEB Condition 74 at least three months prior to commencing HDD activities at the Fraser River crossing.
City of Surrey	The compensation area near the Golden Ears Connector must be maintained for five years by the BC Ministry of Transportation (MOTI).	Topic is on the agenda at a SWG meeting on September 26, 2017. The outcome will be reported in the next Condition 49 update.
City of Surrey	Staging areas should be discussed through TWGs.	Trans Mountain agrees. Topic was discussed at TWG Meeting on September 12, 2017.

		Topic will continue to be discussed at future TWG and SWG meetings.
City of Surrey	City would like Trans Mountain and KLTP to look into reducing construction footprint at intersection of Golden Ears Connector and Golden Ears Way.	Trans Mountain and its Contractor will review construction footprint at intersection of Golden Ears Connector and Golden Ears Way at future TWG meetings or subgroups in Q4 2017.
City of Surrey	City is interested in sediment control. Surrey doesn't allow direct discharge into municipal drainage system. City would need to be notified should there be a sediment release during construction.	Topic was discussed at the SWG meeting on September 26, 2017. Sediment control is covered by environmental management plans; however, location-specific sediment control plans are in development and will be discussed in more detail at future TWG SWG meetings.
City of Surrey	Tree replanting in temporary work space. The City noted that there is land of interest to the City as it has been designated a future urban forest. This area needs to be revegetated.	Trans Mountain is developing a planting plan, which it will share with the City when complete. Trans Mountain has an operational requirement to keep the pipeline easement free of tall vegetation, but the permanent ROW can be revegetated with lower growing plants. The temporary working space will be replanted with trees.
City of Surrey	The City would like to see efficient & effective information flow between contractors, TMEP and the City during construction.	Trans Mountain agrees it is important to have an effective flow of information during construction. This will be added as a future TWG/SWG topic in Q1 2017 – Q1 2018.
City of Surrey	The City asked when TMEP is doing work adjacent to Surrey lands, the City would like to be informed if knotweed is discovered.	Trans Mountain keeps track of which invasive species are adjacent to the ROW and will keep the City informed. Trans Mountain uploads information on weeds/invasive plants to the BC FLNRO Invasive Alien Plant Program (IAPP) database annually.
District of Hope	District request for consideration of cemetery visitors when construction around Tract 1979, which adjoins a local cemetery.	Future TWG agenda topic Q4 2017 – Q1 2018. Trans Mountain confirmed that construction should not impact access to the cemetery. Trans Mountain adds this concern to the RAP for consideration as the Communications and Notification Plan is developed.
District of Hope	In lieu of formalized approach for crossing approvals, District of Hope to discuss approach to crossings (utility, road and watercourse) and confirm with Trans Mountain.	Future TWG agenda topic Q4 2017 – Q1 2018.
District of Hope	Trans Mountain to confirm if it will apply for a business license from the FVRD or the District of Hope.	Future TWG agenda topic Q4 2017 – Q1 2018.
Fraser Valley Regional District	Proposed camp in Hope St. Elmo Road location is an interest as the site is within the Laidlaw community which falls under Electoral Area jurisdiction and is an area of interest to the FVRD.	Topic discussed at a TWG Meeting on May 15, 2017. Trans Mountain provided an overview of the proposed sleeper camp to be located within the District of Hope. FVRD acknowledged the Flood Hope Road location is within the District of Hope jurisdiction and will rely upon the District to provide feedback with respect to that location. Trans Mountain is no longer pursuing the St. Elmo Road location for a laydown area or camp location. Trans Mountain to provide advance notice to FVRD when final camp location chosen.
Fraser Valley Regional	Authority and jurisdiction with respect to permitting. FVRD noted time is	Trans Mountain confirmed intent to comply with all local and regional permitting requirements to the

District	required to assess the various permits that would be required for a worker accommodation camp such as earth works, potable water, waste generation, as well as any temporary use permits that may be required.	extent practicable; however, permits would be applied for by the General Contactor responsible for each spread. Trans Mountain confirmed that once the General Contractors for each spread is announced, a meeting would be arranged with the FVRD to discuss required permitting.
Fraser Valley Regional District	There is strong community opposition to the St. Elmo Road location proposed as a potential laydown area and camp location. Land in question is currently farmed and designated as Agricultural Land Reserve (ALR); local community would prefer to keep the land as ALR designated and not rezoned for temporary industrial use. FVRD proposed other options that Trans Mountain could consider that are not designated ALR and would be more appropriate and less community opposition.	Complete. Trans Mountain is no longer pursuing the St. Elmo Road location for a laydown area or camp location.
Metro Vancouver Regional District	Facilitate discussion with KMC regarding Pipeline Protection and comprehensive master agreements.	Complete. Trans Mountain provided a Damage Prevention presentation to Metro Vancouver at a SWG meeting on July 12, 2017.
Metro Vancouver Regional District	Provide Accommodation Agreement example for review for potential use between Metro Vancouver & TMEP.	Complete. Topic discussed at SWG meeting on May 4, 2017.
Metro Vancouver Regional District	Metro Vancouver expressed concern about multiple sources of contact and multiple iterations of crossing drawings. The TMEP designer should have our 'basic requirements' and should be striving to meet these.	Complete.
Metro Vancouver Regional District	Share construction / crossing detailed schedule and priorities, as well as details about the 23 crossings.	In progress. Trans Mountain is awaiting a further response from Metro Vancouver.
Metro Vancouver Regional District	Review alignment through Coquitlam Landfill site based on Metro Vancouver's feedback.	Complete. The topic was discussed during a SWG meeting; the decision was made to use north route through Coquitlam Landfill now. Further discussion at SWG pending.
Metro Vancouver Regional District	Provide proximal sections where Metro Vancouver infrastructure (water and sewer) parallels TMEP infrastructure (address in SWG).	Complete. Trans Mountain provided the requested information to Metro Vancouver.
Metro Vancouver Regional District	Metro Vancouver is concerned about KLTP's intended access along the paved road through Colony Farm Park. This is not a public road.	Complete. Trans Mountain and its Contractor clarified that this would be used as a secondary access. Trans Mountain and its Contractor could use a single access (adjacent to Mayfair siding) if required. The group discussed the small pinch point (on Metro Vancouver lands) at the south end of the gravel

		<p>access road adjacent to Mayfair siding.</p> <p>Metro Vancouver indicated the concern had been addressed. The paved road is no longer being considered for access.</p>
Metro Vancouver Regional District	<p>Metro Vancouver expressed concern through VFPA Permit application about impacts to outflow near Westridge Marine Terminal (WMT) as a result of new marine traffic patterns.</p>	<p>Discussed at September 13, 2017 TWG meeting. Trans Mountain will ensure Metro Vancouver remains able to access outflow during TMEP construction. Trans Mountain reviewed mitigation measures to be established and surveys. Further discussion to take place at SWG meetings.</p> <p>Trans Mountain also responded to concerns by letter on September 21, 2017. A copy of this letter is located in Appendix B.</p>
Regional District of Fraser-Fort George	<p>Possible challenges to supplying tourists and workers with services.</p>	<p>Topic for a future TWG or SWG meeting Q4 2017 – Q1 2018.</p>
Regional District of Fraser-Fort George	<p>Regional District role in delivering emergency services to camp.</p>	<p>In progress. Discussed at a TWG meeting on July 19, 2017. Trans Mountain confirmed camps will be self sufficient. There will be ongoing opportunities in follow up discussions to further discuss ways to enhance local infrastructure and improve efficiencies.</p>
Township of Langley	<p>Crossing packages:</p> <p>The Township of Langley requested detailed design drawings of the proposed pipeline at each road and utility right-of-way crossing, with construction not to take place until the Township approves the design drawings. The Township requested that TMEP work with the Township to develop appropriate pipeline depth through the Township and to seek approval adjacent to and under the Township's infrastructure.</p> <p>The Township would like to see elevations plus depth of utilities TMEP will be crossing on design drawings including drainage infrastructure. The Township is concerned with the depth of the pipeline at locations of existing and future water, sanitary sewer, and storm sewer pipes.</p> <p>The Contractor should be required to pre-expose utilities to confirm depth and location and submit of videos of the inside of storm and sanitary sewers after construction to confirm they are not damaged, and be required to take appropriate remedial action if there is damage. The Township noted that review of crossing documents does not constitute crossing approval or consent.</p>	<p>Crossing packages and construction methods are being discussed through TWGs.</p> <p>Trans Mountain has committed to work with the Township to develop appropriate pipeline depths through the Township and to seek approval adjacent to and under the Township's infrastructure. Design drawings were provided to the Township of Langley and discussed at a TWG meeting on May 24, 2017.</p> <p>The Township shared some of their comments with Trans Mountain and KLTP. There may be further comments when the detailed route is approved.</p> <p>Trans Mountain will continue discussions related to pipeline depth through TWGs and Utility Crossing SWG meetings. Pipeline depth to be finalized following potholing (utility locate) program scheduled for Q4 2017.</p> <p>Video inspection is anticipated pre and post construction for the Township of Langley's municipal infrastructure. Trans Mountain and contractors will use a utility locate program in Q4 2017 to get more detailed information and will continue to share information with the Township at future TWG and SWG meetings.</p>
Township of Langley	<p>Detailed design specifications for Langley's flood plains and Yorkson Creek.</p>	<p>Complete. Topic was discussed at a TWG meeting on July 24, 2017. Yorkson main channel will be crossed using trenchless construction methods via auger bore. Trans Mountain and its Contractor</p>

		provided alignment drawings to the Township for Spread 7 (via email, July 31, 2017).
Township of Langley	The Township has concerns about erosion control for Nathan Creek; the Township requested that Nathan Creek and West Creek be crossed via trenchless method.	<p>Topic was discussed at a SWG meeting on June 6, 2017. Nathan Creek and West Creek will be crossed via isolated trenched method. Mitigation measures were discussed with the Township’s environment experts. Trans Mountain provided a letter to the Township dated August 9, 2017 with a summary of some of the key mitigation measures. (Appendix B). A detailed list of mitigation measures for watercourses is provided in <u>Section 14.0 of the Pipeline EPP (Volume 2 of the Environmental Plans)</u>.</p> <p>The Township is reviewing the letter and will provide a response.</p> <p>Trans Mountain understands the Township has concerns regarding erosion and sedimentation issues. We are confident with the isolated trenched crossing method and appropriate mitigation measures employed during construction. Potential issues can and will be addressed and mitigated to the extent practical.</p>
Township of Langley	<p>Hydrostatic testing:</p> <p>The Township’s water system is not to be used as a source of water for pipeline testing, unless otherwise approved by Langley. The Township requested it be notified of discharge locations and schedules. The Township requested a copy of the Hydrostatic Testing Plan prior to submission.</p> <p>The Township requested that Trans Mountain instruct its contractor to forward copies of Water Withdrawal and Discharge Forms to the Township, as the discharge could impact Langley’s drainage systems.</p>	<p>The Hydrostatic Testing Plan (NEB Condition 113) will be filed three months prior to commencing pressure testing of any Project component and will include the site-specific mitigation measures to be implemented at the water withdrawal and discharge locations.</p> <p>Discussed at May 24, 2017 TWG meeting:</p> <ul style="list-style-type: none"> • Trans Mountain clarified that water withdrawal for the hydro test will be from the Fraser River. Contractor (KLTP) may need to tap into municipal water sources but those will be relatively small volumes. • Trans Mountain will share Hydrostatic Testing plan when available (anticipated in Q4 2017). <p>Discussion on this topic will continue through SWG meetings.</p>
Township of Langley	The Township requested that detailed design considerations for crossings be formalized in a crossing agreement.	<p>While municipal costs of working around the existing and new pipeline are outside the TWG scope, at the Township’s request, the Crossing agreement for the expanded pipeline will be part of discussion through TWGs.</p> <p>The Township is working on a draft crossing agreement and will share it with Trans Mountain in Q4 2017.</p>
Township of Langley	<p>The Township notes that Trans Mountain committed that where minor roads are crossed that may affect established community use/access routes, Trans Mountain will complete open cut crossings within one day, where practical.</p> <p>The Township requested that roads within the Township are crossed trenchlessly.</p>	<p>This topic was discussed at a TWG meeting on May 1, July 24 and August 28, 2017. Trans Mountain is reviewing its position in regards to commitments to completing trenchless crossings on Langley streets.</p> <p>Trans Mountain’s approach to road crossings is captured in the NEB Recommendation Report, page 71, under 6.1.8 Infrastructure crossings: "Crossings would be individually assessed to determine the most appropriate crossing method and design. Crossing of highways, high-use gravel roads and railways would be constructed using a bored crossing method, which would have a minimum effect on traffic or</p>

		<p>interruption to communication or utility services. Crossings of low-use gravel roads, minor roads and trails would be completed by conventional open-cut crossings.” Where the pipeline alignment runs parallel to a road, the only viable construction option is open cut.</p> <p>Trans Mountain and its Contractor to complete traffic counts to determine road crossing methods. Topic will continue to be discussed in future TWG and SWG meetings in Q4 2017.</p>
Township of Langley	<p>The Township asked about potential discrepancy with number of trenchless crossings and the least risk window. The Township requested that the determination of fish-bearing watercourses should be re-assessed at 24 crossings, would like to understand which classification is being used. The Township would like to know whether Class C or green coded streams are included.</p>	<p>Complete. This topic was discussed with Trans Mountain experts at the Environment SWG meeting on June 6, 2017. At the Township’s request, Trans Mountain shared the links to the TMEP summary tables. Trans Mountain relies on the government database for historical data; however, Trans Mountain collects its own data through site visits, often over multiple seasons. In the case of discrepancies, Trans Mountain is able to re-evaluate prior to construction. Trans Mountain confirmed there are 18 trenchless watercourse crossings in Langley. The Township was generally satisfied with TMEP data, and acknowledged that Trans Mountain had likely sampled areas the Township had not had access to.</p> <p>"Class C" streams (as per Township of Langley classification system) are all non fish-bearing watercourses or roadside ditches. These do not have an assigned Least Risk Window (for fish), and have been assigned an "open" window; meaning a contractor can cross them at any time. However, if flowing, contractors are still required to isolate flows and manage water quality, regardless of when they are crossed.</p>
Township of Langley	<p>Municipal bylaw compliance and permitting (including highway and noise). The Township would like to confirm that contractors will apply for highway use and noise control permits. Section 254 of the NEB Decision states: “Trans Mountain has committed to comply with, or seek variance from, all municipal bylaws, including those involving noise.”</p>	<p>Approach discussed at TWG meetings on May 1 and May 24, 2017 and a list of applicable permits/bylaws was reviewed. Trans Mountain confirmed intent to comply with all applicable local and regional permitting requirements where practicable. Permits will be applied for by the Contactor responsible for each spread and variance will be sought where it is unable to comply.</p> <p>Trans Mountain and its Contractor met with the Township on July 19, 2017 to review preliminary Traffic Management Plans through a SWG. Trans Mountain confirms there will be a complaints management process in place and an emergency contact will be made available 24/7 during construction.</p> <p>Ongoing topic for discussion at future TWG and SWG meetings.</p>
Township of Langley	<p>The Township requested to provide input in the use of heavy wall pipe or concrete casings at road allowances and water bodies; discuss risk assessment methodology and mitigation options through the Technical Working Group as the detailed design progresses.</p>	<p>Topic was discussed at TWG meetings on July 24, 2017 and August 28, 2017. Trans Mountain indicated that pipeline thickness is varied. The pipeline design takes into account potential geohazards and other factors. Typical wall thickness on the existing pipeline is 9.5 mm. For TMEP it is generally 11.8 mm, 14.7 mm for major roads and 19 mm for major HDD crossings. Wall thickness is identified within pipeline alignment sheets that were sent to the Township. The Township will review the drawings and discussion will continue through TWGs in Q4 2017.</p>
Township of Langley	<p>Protection of watercourses during construction.</p>	<p>Complete. Discussed protection of watercourses during construction at Environment SWG meeting on</p>

		<p>June 6, 2017.</p> <p>A detailed list of mitigation measures for watercourses is provided in <u>Section 14.0 of the Pipeline EPP (Volume 2 of the Environmental Plans)</u>. Additionally, some of the key measures to be used during watercourse crossing construction and reclamation at Nathan and West Creeks to protect these watercourses were provided in the letter to the Township dated August 9, 2017. A copy of this letter is located in Appendix B.</p>
Township of Langley	Provision of potable water and irrigation water if aquifer is compromised by the pipeline (during construction phase).	<p>Complete. Trans Mountain confirmed protection of groundwater (including aquifers) during construction is the focus of the Groundwater Management Plan. Trans Mountain will provide an alternative potable water supply should monitoring indicate that a water well has been damaged (i.e., diminishment in quantity and/or quality) as a result of pipeline construction activity.</p> <p>Protection of aquifers during operations is outside TWG scope; will be addressed by the Trans Mountain Emergency Management Team.</p> <p>As indicated in the <u>BC EAO Condition 26 filing</u>, “In the event that a spill originating from the project is confirmed to have contaminated drinking water, as determined by a Qualified Professional, (Trans Mountain) will provide one or more alternate source(s) of drinking water for all persons who use water for human or animal consumption from the contaminated water source for the period of time during which contamination exists”. Trans Mountain is enhancing the Pipeline ERP to highlight the logistics section requirements to address and confirm the fulfillment of this Condition in the case of a spill that contaminates the drinking water.</p>
Township of Langley	The Township is concerned how hydrovac excavations in the pavement sections of roadways will be filled, as future subsidence of asphalt can become a hazard and will be a maintenance issue.	<p>Topic was discussed at a TWG meeting on July 24, 2017. Trans Mountain and its Contractor will maintain roads up to one year after construction. The Highway Use Permit will cover most of these requirements, and will be applied for by KLTP.</p> <p>Discussed the general process at Permitting SWG meeting on July 25, 2017.</p>
Township of Langley	The Township requested to be consulted on preparation of traffic management plans; The Township requests that TMEP consult with Langley in advance of finalizing traffic and access management plans (and traffic mitigation measures) in Langley.	<p>Topic was discussed at a TWG meeting on July 19, 2017; the Contractor reviewed Spread 7. Trans Mountain and the Contractor will continue working with the Township on Traffic Management Plans through future SWG group meetings.</p>
Township of Langley	Valve locations, placement and number of remote mainline block valves. The Township requested Trans Mountain to explain a rationale for valve placement within the Township.	<p>Complete. Trans Mountain provided valve location maps to the Township in May 2017; further discussion took place at TWG meetings on May 24, 2017 and August 28, 2017. Trans Mountain reviewed and explained a rationale for valve locations on both the existing and new pipelines.</p>

Township of Langley	<p>The Township requests to be consulted about effective invasive species management strategies.</p>	<p>Complete. Trans Mountain discussed management of invasive species at an Environment SWG meeting on June 6, 2017.</p> <p>Trans Mountain has committed to managing and controlling invasive plants both during construction and operations of the Project. Trans Mountain and the Contractor have plans and procedures to prevent transfer of soil and spreading of weeds and this plan was reviewed with the Township.</p>
Township of Langley	<p>The Township notes that the following wildlife species at risk have been encountered in Langley, although not necessarily in the pipeline corridor:</p> <ul style="list-style-type: none"> • Barn Owl (Langley locations noted in Plan 6.4.2 Barn Owl Mitigation Plan) • Oregon Forest snail • Oregon Spotted Frog • Pacific Water Shrew <p>The Township’s comment: the Oregon Forest Snail critical habitat polygon is close to the Salmon River crossing - it is just outside the end of their mapped habitat.</p>	<p>Topic was discussed in the Environment SWG meeting on June 6, 2017. Trans Mountain has management plans specific to each of the species.</p> <p>Regarding the Oregon Forest Snail critical habitat, if construction does not overlap but is very close to habitat, Trans Mountain would confirm their presence/absence prior to construction and implement the site-specific mitigation for this species as needed.</p> <p>Trans Mountain will continue to discuss reclamation in the Township through future TWG and SWG meetings.</p>
Township of Langley	<p>Truck access requiring culvert extension may require driveway application.</p>	<p>Trans Mountain and its Contractor provided a list of access locations for Township assessment within Traffic Management Plans discussed at a Permitting SWG meeting on July 25, 2017.</p> <p>Topic for further discussion at future TWG and SWG meetings.</p>
Township of Langley	<p>The Township requests Trans Mountain inspectors monitor construction activities to ensure that grading does not create issues, construction materials are contained within the approved construction right- of-way, and no settlement issues arise with adjacent properties or services.</p>	<p>Trans Mountain and its Contractor will apply for a Soil Removal and Deposition Permit, which addresses this concern.</p>
Township of Langley	<p>The Township is concerned how hydrovac excavations in the pavement sections of roadways will be filled, as future subsidence of asphalt can become a hazard and will be a maintenance issue.</p>	<p>Discussed general process at a Permitting SWG meeting on July 25, 2017. Trans Mountain and the Contractor will apply for a Highway Use Permit and will maintain roads up to one year following completion of construction.</p>
Township of Langley	<p>The Township has concerns about cathodic protection on Township infrastructure and potential conflicts with TMEP’s cathodic protection. The Township requested more information about cathodic protection.</p>	<p>Topic was discussed at TWG meetings on May 1, 2017 and July 24, 2017. Trans Mountain will engage with KMC operations and identify all areas of potential conflict and include recommendations.</p> <p>Trans Mountain and its Contractors will schedule a meeting with the Township to identify the crossings that Trans Mountain is looking to bond, provide clarification on bonding and determine what the issues are and the recommendations to resolve them. Trans Mountain update the crossing drawings to reflect</p>

		<p>this.</p> <p>Discuss avoidance of potential conflicts with cathodic protection on existing Township infrastructure through Utility Crossing SWG and TWG meetings. Cathodic protection strategy will be reviewed once utility locate program is complete by Q1 2018.</p>
Township of Langley	The Township requested to be consulted on preparation of traffic management plans. The Township requests that TMEP consult with Langley in advance of finalizing traffic and access management plans (and traffic mitigation measures) in Langley.	Trans Mountain and its Contractor started discussion on this topic for Spread 7 at July 19 SWG meeting. KLTP to continue working with the Township on Traffic Management Plans via a SWG group. This is covered under the Highway Use Permit (HUP).
Township of Langley	<p>The Township requests an opportunity to provide input towards communication plans related to activities that impact normal traffic flow (pedestrian, cyclist, and vehicles).</p> <ul style="list-style-type: none"> • The Township would like to see notice signs posted 48 hours before construction where traffic is concerned. The Township would like TMEP to review the municipality's highways expectations guideline for traffic control available on the Township's website. • Highway Use Permits will contain Township traffic management requirements. 	<p>Trans Mountain has developed a communication and notification plan and provided an overview of the plan at July 24, 2017 TWG meeting.</p> <p>Trans Mountain will set up a SWG meeting discuss communication and notification plan in Q4 2017.</p>
Township of Langley	Impact to agricultural land and compensation to farmers for reduced productivity of agricultural land.	Topic outside scope for TWGs. At a TWG meeting on May 1, 2017, Trans Mountain explained approach and response was also provided in the draft list of concerns. Trans Mountain will compensate owners for crop and other losses that might be incurred due to TMEP construction or operations. Trans Mountain will work with the owner to mitigate the impact, and then compensate if there are losses after mitigation. The Township would like to take offline to review.
Township of Langley	The Township requested Trans Mountain to develop a discharge plan to mitigate drainage impacts, including erosion control and sediment management for the construction work.	Further discussion regarding drainage through TWGs and SWGs. Trans Mountain and its Contractor will complete a utility locate program by Q1 2018 to confirm missing elevations on crossing drawings. TMEP is developing erosion and sedimentation control plans.
Township of Langley	Trans Mountain will work with the Township to establish days and hours of work.	<p>Trans Mountain and its Contractor discussed hours of work at the TWG meeting on July 24. There are three locations in Spread 7 where variance will be required. Trans Mountain and its Contractor plan to work day and night shifts, in those locations and will require variance from the Township's noise bylaw.</p> <p>Discuss noise mitigation plan through TWGs and SWGs. Work with the Township to determine where variances are requested and/or required (e.g.HDD). Continue discussion in Permitting SWG. Trans Mountain and its Contractor to address this in the permitting process.</p>
Township of Langley	The Township requests that Trans Mountain identifies instances such as noise disruption, and seeks stakeholder input and subsequently obtains relevant	Approach discussed at TWG meeting on May 24 and list of applicable permits/bylaws have been reviewed. Trans Mountain will submit applications to demonstrate compliance with applicable bylaws,

	<p>exemptions, and providing forward notification to affected residents and/or businesses.</p> <p>The Township requests TMEP work with Langley to develop a mitigation plan providing an immediate response to noise complaints. The Township also request that TMEP instruct its contractors to comply with Langley’s Noise Control Bylaw.</p>	<p>and will seek variance where unable to comply.</p> <p>Trans Mountain and its Contractor will have a noise mitigation plan and communication and notification plan in place. Trans Mountain is required to submit a noise mitigation plan to the NEB for HDD installations. The plan will need to be filed 90 days prior to work beginning. Appropriate steps will be taken to mitigate noise. One example is a temporary sound wall using stacked containers. All of this will be based on the noise studies.</p> <p>Continue discussion regarding hours of work, notifications and complaints management process through TWGs.</p> <p>Trans Mountain and its Contractor to provide areas requested for noise variances to accommodate business operations in the Port Kells area (non-residential areas).</p> <p>Trans Mountain and its Contractor to make application to the Township under noise exemption policy where noise variances are required for HDD and major trenchless operations (24/7 work). Noise mitigation plans will be implemented and supplied to the Township prior to construction.</p>
Township of Langley	<p>The Township is concerned construction activities may adversely impact events such as walkathons and running or cycling races or tours. Langley would like confirmation that contractors will be required to obtain Highway Use Permits (HUP) or similar approvals for work on public roadways in Langley so potential conflicts can be identified in advance</p>	<p>Approach discussed at TWG meeting on May 24, 2017 and list of applicable permits/bylaws have been reviewed. Trans Mountain will submit applications to demonstrate compliance with applicable bylaws, and will seek variance where unable to comply. Trans Mountain will apply for a HUP.</p> <p>Trans Mountain and its Contractor met with the Township on July 19, 2017 to review preliminary traffic management plans. Discussions will continue through TWG and SWG meetings. Trans Mountain and its Contractors will coordinate specific traffic management plans and construction schedule with the Township at future TWGs and SWGs in Q4 2017 – Q1 2018.</p>

TABLE 6.2
NEW ISSUES AND CONCERNS RAISED BY MUNICIPALITIES IN ALBERTA
BETWEEN APRIL 1, 2017 AND SEPTEMBER 31, 2017

Municipality	Issue/Concern	Response/Outcome
Parkland County	Parkland County requested that Mayor and Council receive a formal Project Update presentation so that TMEP plans and schedule are clear.	Trans Mountain agrees and committed to delivering a presentation to Mayor and Council. Trans Mountain plans to organize a presentation to Council in Q4 2017, after the municipal election.
Parkland County	<p>Parkland County is interested in the planned procedure for communication with residents leading up to and during construction.</p> <p>If future Information Sessions are planned, and depending on timing, Parkland County requested that Trans Mountain look into the possibility of participating in joint Information Sessions for the public, in combination with other projects in the area. The County recommended this approach to avoid stakeholder fatigue and make information from several projects in the area available to residents with one visit.</p>	<p>Trans Mountain explained the role of community liaisons and once in place, their contact information will be made available. Construction information and contact information will also be available online at www.transmountain.com.</p> <p>Trans Mountain has developed a communication and notification plan with the intention to share the plan with the County when available. Trans Mountain expects the plan will be ready to share in Q4 2017.</p>
Strathcona County	Strathcona County is interested in the planned procedure for notifying impacted residents. The County suggested that a letter be sent to residents adjacent to the Transportation and Utilities Corridor (TUC) once construction is ready to commence. Such a letter should include contact information.	<p>Trans Mountain explained the role of community liaisons and once in place, their contact information will be made available. Construction information and contact information will also be available online at www.transmountain.com.</p> <p>Trans Mountain has developed a communication and notification plan with the intention to share the plan with the County when available. Trans Mountain expects the plan will be ready to share in Q4 2017.</p>
Yellowhead County	Yellowhead County reminded TMEP that the potential spread of Clubroot disease is an issue that many landowners and the County are concerned about.	Trans Mountain is aware of the effects of Clubroot disease on landowner and understands the County's concern. Trans Mountain referred to its Clubroot Management Plan at a TWG meeting on September 6, 2017 and noted that Trans Mountain is currently finalizing the cleaning station locations and composition.
Yellowhead County	<p>Yellowhead County inquired as to whether storing pipe at the proposed Temporary Work Site in the County could be an issue with access onto Highway 16 due to the intersection, required distances for different turns.</p> <p>Yellowhead County suggested that a roadside development permit would be required from Alberta Transportation.</p>	Trans Mountain will pursue the development permit through Alberta Transportation, which will establish any requirements for highway access and site egress.

Yellowhead County	Yellowhead County asked that as construction gets closer to commencement that Trans Mountain provide a detailed schedule so that any potential issues or conflicts can be addressed early and proactively.	Trans Mountain will pursue the development permit through Alberta Transportation, which will establish any requirements for highway access and site egress.
Parkland County	Parkland County requested that Mayor and Council receive a formal Project Update presentation so that TMEP plans and schedule are clear.	Trans Mountain agrees and committed to delivering a presentation to Mayor and Council. Trans Mountain plans to organize a presentation to Council in Q4 2017, after the municipal election.
Parkland County	<p>Parkland County is interested in the planned procedure for communication with residents leading up to and during construction.</p> <p>If future information sessions are planned, and depending on timing, Parkland County requested that Trans Mountain look into the possibility of participating in joint information sessions for the public, in combination with other projects in the area. The County recommended this approach to avoid stakeholder fatigue and make information from several projects in the area available to residents with one visit.</p>	<p>Trans Mountain explained the role of community liaisons and once in place, their contact information will be made available. Construction information and contact information will also be available online at www.transmountain.com.</p> <p>Trans Mountain has developed a communication and notification plan with the intention to share the plan with the County when available.</p>
Strathcona County	Strathcona County is interested in the planned procedure for notifying impacted residents. The County suggested that a letter be sent to residents adjacent to the Transportation and Utilities Corridor (TUC) once construction is ready to commence, Such a letter should include contact information.	<p>Trans Mountain explained the role of community liaisons and once in place, their contact information will be made available. Construction information and contact information will also be available online at www.transmountain.com.</p> <p>Trans Mountain has developed a communication and notification plan with the intention to share the plan with the County when available. Trans Mountain expects the plan will be ready to share in Q4 2017.</p>
Yellowhead County	Yellowhead County reminded TMEP that the potential spread of Clubroot disease is an issue that many landowners and the County are concerned about.	Trans Mountain is aware of the effects of Clubroot disease on landowner and understands the County's concern, Trans Mountain referred to its Clubroot Management Plan and noted that Trans Mountain is currently finalizing the cleaning station locations and composition.
Yellowhead County	<p>Yellowhead County inquired as to whether storing pipe at the proposed Temporary Work Site in the County could be an issue with access onto Highway 16 due to the intersection, required distances for different turns.</p> <p>Yellowhead County suggested that a roadside development permit would be required from Alberta Transportation.</p>	Trans Mountain will pursue the development permit through Alberta Transportation, which will establish any requirements for highway access and site egress.
Yellowhead County	Yellowhead County asked that as construction gets closer to commencement that Trans Mountain provide a detailed schedule so that any potential issues or conflicts can be addressed early and proactively.	Trans Mountain will pursue the development permit through Alberta Transportation, which will establish any requirements for highway access and site egress.

5.0 APPENDICES OVERVIEW

5.1 Appendix A: Copies of Final Municipality-Specific Terms of Reference

5.2 Appendix B: Letter Correspondence

5.1 Appendix A: Copies of Final Municipality-Specific Terms of Reference



TRANS MOUNTAIN

TMEP Technical Working Group Proposed Revised TERMS OF REFERENCE City of Abbotsford

Version #	Date	Description	Further Action
1	28-Oct-16	Draft presented to City of Abbotsford prior to February 9, 2017 initial Technical Working Group Meeting	Feedback requested
2	1-May-17	Draft revised by Trans Mountain to incorporate feedback from other municipalities that Trans Mountain feels is relevant to the City of Abbotsford	Confirmation of the City's acceptance of these revisions by June 30, 2017
3	10-Jul-17	Draft TORs are finalized	Review and update accordingly upon feedback received from City

PURPOSE

On November 29, 2016, the Federal Governor in Council approved the Trans Mountain Expansion Project (TMEP or Project), subject to 157 Conditions attached to the Project Certificate of Public Convenience and Necessity (CPCN), which was issued by the National Energy Board (NEB) December 1, 2016. Trans Mountain advises commencement of construction will occur in late summer 2017 with an in-service date for the expanded pipeline and associated facilities and infrastructure of December 2019. Trans Mountain will seek guidance from the City of Abbotsford on topics of interest to the City.

Two Conditions address continuation of the Technical Working Groups (TWGs); Conditions 14 and 49 – see Appendix A.

SCOPE AND MANDATE

The intent of the TWG meetings between the City of Abbotsford and TMEP is to act as a forum for discussing topics of mutual interest as they relate to TMEP, including the tracking and resolution of outstanding concerns. It is intended that the Terms of Reference and TWGs will improve communication including creating an opportunity to share information, discuss topics of mutual interest and resolve concerns, including those outstanding, within a set timeframe.

The focus of the TWGs may evolve (through design and construction phases of the Project, and into operations) and will include various topics of mutual interests related to the proposed TMEP. Trans Mountain aims to collaborate to address outstanding concerns.

TWG Goals

The following principles guide the TWG:



TRANS MOUNTAIN

- The TWG is a forum to exchange information related to TMEP; and is intended to ensure constructive discussions that are solutions oriented.
- It is assumed information discussed at TWG meetings can be shared in a public forum unless either party requests confidentiality.
- Subject to the processes set out below, discussions will be documented and filed with the NEB (as per Condition 49).
- Trans Mountain recognizes stakeholder participation in any TWG meeting does not imply endorsement for the Project, nor does it imply the City indirectly approving any permit applications or other submissions from TMEP.
- Where practical, Trans Mountain will endeavor to incorporate input received from the City during TWG meetings into its plans for the Project, and to provide rationale if input is not accepted or incorporated. In evaluating how to incorporate the input from the City, Trans Mountain will be guided by the principle that the Project should not place unnecessary cost, burden, or risk upon the City.

Topics

The topics discussed in the TWG meetings include, however, are not limited to:

- pipeline alignment within the City of Abbotsford and within the scope of the TWG mandate,
- construction methodology
- timing and communication,
- socio-economic effects monitoring,
- protection and monitoring of municipal and community water sources,
- stakeholder land use,
- existing and future infrastructure,
- standards and by-law compliance,
- noise management
- traffic management, including access, egress, laydown areas, and parking for any TMEP related construction within the City boundaries
- construction safety,
- regional parks and City parks considerations,
- visual impacts and mitigation
- highway, utility, and land crossing issues, including conflicts with City's infrastructure and replacement (conflict resolution)
- watercourse crossings,
- emergency response and
- other interests identified by either party within the scope of the TWG mandate

Meeting Materials, Structure, Frequency and Details



TRANS MOUNTAIN

A meeting date, time, and location schedule will be set by agreement between the parties for regular monthly intervals. By agreement, the parties may choose to meet more frequently or to cancel a set monthly meeting. Meetings are intended to be in person to ensure ease of discussion; conference calls can be used when convenient and as needed. The TWG may agree to form subgroups to address specific technical matters with subject matter experts as required, including but not limited to:

- Traffic
- Utilities
- Emergency Management
- Environmental Restoration

Trans Mountain will provide a draft agenda to the City at least two weeks before a scheduled meeting. The City will provide any additional agenda items to Trans Mountain within a week of receiving the draft agenda. Trans Mountain will endeavor to prepare materials with as much advance notice as possible.

Trans Mountain will ensure that at least two weeks before a scheduled meeting, all documents relevant to the agenda items to be discussed at the meeting have been listed and provided to the primary contact for the City, listed below. Such documents include, however, not limited to design drawings, bylaw compliance packages, environmental reports, traffic control plans, material staging plans, plans related to any of the NEB or BCEAO conditions, and any other material requested by the City. Documents will be provided electronically and in full sized hard copy. Trans Mountain will provide blacklined versions of revised documents to the extent practical to assist the City in their review. Trans Mountain is unable to provide blacklined versions of draft Condition filings.

Meetings will continue through construction planning and operations, or until mutually agreed. TWG meetings during construction and operation may be subject to revised Terms of Reference (TORs) to be determined by agreement between Trans Mountain and the City.

Accountability and Meeting Attendance

Trans Mountain's sponsor for the TWGs will be its David Safari, Vice President, Trans Mountain Expansion Project. As a member of the Kinder Morgan Limited (KML) Executive Team, Mr. Safari is accountable for construction of TMEP.

Attendees for subsequent meetings will be determined by both parties in advance of the meeting. Each party will designate a single point of contact within each organization to be responsible for coordinating the meetings, including required attendees. Attendance at TWG meetings by either party will be determined on an issue by issue basis; however, Trans Mountain commits to ensuring it has a decision maker at each meeting who is authorized to



TRANS MOUNTAIN

make decisions and commitments regarding the matters to be discussed, as established by each meeting's agenda and according to agreed to advance notice. The goal is to keep the meetings focused and results orientated. Attendees could include:

- decision making representatives from stakeholders' key departments affected by TMEP;
- representatives from TMEP Contractors, Engineering, Lands, Permitting, Traffic Management, Environment, Stakeholder Engagement and Communication as needed; and
- other external stakeholders who have an interest in the intended topic of discussion, as agreed to by both parties.

Reporting and Communicating

Following a meeting, Trans Mountain will provide relevant meeting documentation, including the meeting summary and Rolling Action Plan (RAP), as described below, to be reviewed for completeness. These documents will be revised and re-issued as required once reviewed by the City. Trans Mountain will seek revisions from the City on draft meeting summaries and the RAP. All edits will be accepted or differences of opinion documented.

Subject to the agreed to review process, as set out above, all outcomes from the TWGs will be posted to the Trans Mountain website at www.transmountain.com and summarized in filings to the NEB as per the schedule in Condition 49.

The City will endeavor to respond to information sharing comment packages within two weeks of receiving submission from Trans Mountain and Trans Mountain will consider and archive the City's responses.

Protocols and Mechanisms for Implementing Recommendations/Decisions

Trans Mountain will use a RAP of Mutual Interests to capture key topics of interest, concerns, disagreements, decisions and commitments made, and action items with dates assigned to both parties. Subject to the review processes set out above, the RAP will provide a cumulative archive of the City's comments, Trans Mountain's responses to the City's comments, and a summary of outcomes from any meetings, including issues/topics resolved.

Areas for which both parties are unable to find resolution will be documented as such, and Trans Mountain will include a rationale for the lack of resolution.

TMEP TWG Contacts*

Function	Name	Email	Phone
TMEP VP; KML Executive	David Safari	David_safari@transmountain.com	403-514-6767



TRANSMOUNTAIN

Sponsor			
Primary Contact	Kristjana Hawthorne	Kristjana_hawthorne@kindermorgan.com	604-790-5537
Senior Director, Pipeline Execution	Greg Toth	Greg_toth@kindermorgan.com	403-514-6490
Project Manager	John Macleod	John_macleod@transmountain.com	403-514-6599

* Subject to change upon notification

Municipal TWG Contacts

Function	Name	Email	Phone
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Primary Contact	Sarb Toor	stoor@abbotsford.ca	604-851-4177
Secondary Contact	Katherine Treolar	ktreolar@abbotsford.ca	604-557-4421



TMEP Technical Working Group Proposed Revised TERMS OF REFERENCE City of Chilliwack

Version #	Date	Description	Further Action
1	28-Oct-16	Draft presented to City of Chilliwack prior to December 14, 2016 initial Technical Working Group Meeting	Feedback requested
2	1-May-17	Draft revised by Trans Mountain to incorporate feedback from other municipalities that Trans Mountain feels is relevant to the City of Chilliwack	Confirmation of the City's acceptance of these revisions by June 30, 2017
3	10-Jul-17	Draft TORs are finalized	Review and update accordingly upon feedback received from City

PURPOSE

On November 29, 2016, the Federal Governor in Council approved the Trans Mountain Expansion Project (TMEP or Project), subject to 157 Conditions attached to the Project Certificate of Public Convenience and Necessity (CPCN), which was issued by the National Energy Board (NEB) December 1, 2016. Trans Mountain advises commencement of construction will occur in late summer 2017 with an in-service date for the expanded pipeline and associated facilities and infrastructure of December 2019. Trans Mountain will seek guidance from the City of Chilliwack on topics of interest to the City.

Two Conditions address continuation of the Technical Working Groups (TWGs); Conditions 14 and 49 – see Appendix A.

SCOPE AND MANDATE

The intent of the TWG meetings between the City of Chilliwack and TMEP is to act as a forum for discussing topics of mutual interest as they relate to TMEP, including the tracking and resolution of outstanding concerns. It is intended that the Terms of Reference and TWGs will improve communication including creating an opportunity to share information, discuss topics of mutual interest and resolve concerns, including those outstanding, within a set timeframe.

The focus of the TWGs may evolve (through design and construction phases of the Project, and into operations) and will include various topics of mutual interests related to the proposed TMEP. Trans Mountain aims to collaborate to address outstanding concerns.

TWG Goals

The following principles guide the TWG:



TRANS MOUNTAIN

- The TWG is a forum to exchange information related to TMEP; and is intended to ensure constructive discussions that are solutions oriented.
- It is assumed information discussed at TWG meetings can be shared in a public forum unless either party requests confidentiality.
- Subject to the processes set out below, discussions will be documented and filed with the NEB (as per Condition 49).
- Trans Mountain recognizes stakeholder participation in any TWG meeting does not imply endorsement for the Project, nor does it imply the City indirectly approving any permit applications or other submissions from TMEP.
- Where practical, Trans Mountain will endeavor to incorporate input received from the City during TWG meetings into its plans for the Project, and to provide rationale if input is not accepted or incorporated. In evaluating how to incorporate the input from the City, Trans Mountain will be guided by the principle that the Project should not place unnecessary cost, burden, or risk upon the City.

Topics

The topics discussed in the TWG meetings include, however, are not limited to:

- pipeline alignment within the City of Chilliwack and within the scope of the TWG mandate,
- construction methodology
- timing and communication,
- socio-economic effects monitoring,
- protection and monitoring of municipal and community water sources,
- stakeholder land use,
- existing and future infrastructure,
- standards and by-law compliance,
- noise management
- traffic management, including access, egress, laydown areas, and parking for any TMEP related construction within the City boundaries
- construction safety,
- regional parks and City parks considerations,
- visual impacts and mitigation
- highway, utility, and land crossing issues, including conflicts with City's infrastructure and replacement (conflict resolution)
- watercourse crossings,
- emergency response and
- other interests identified by either party within the scope of the TWG mandate

Meeting Materials, Structure, Frequency and Details



TRANS MOUNTAIN

A meeting date, time, and location schedule will be set by agreement between the parties for regular monthly intervals. By agreement, the parties may choose to meet more frequently or to cancel a set monthly meeting. Meetings are intended to be in person to ensure ease of discussion; conference calls can be used when convenient and as needed. The TWG may agree to form subgroups to address specific technical matters with subject matter experts as required, including but not limited to:

- Traffic
- Utilities
- Emergency Management
- Environmental Restoration

Trans Mountain will provide a draft agenda to the City at least two weeks before a scheduled meeting. The City will provide any additional agenda items to Trans Mountain within a week of receiving the draft agenda. Trans Mountain will endeavor to prepare materials with as much advance notice as possible.

Trans Mountain will ensure that at least two weeks before a scheduled meeting, all documents relevant to the agenda items to be discussed at the meeting have been listed and provided to the primary contact for the City, listed below. Such documents include, however, not limited to design drawings, bylaw compliance packages, environmental reports, traffic control plans, material staging plans, plans related to any of the NEB or BCEAO conditions, and any other material requested by the City. Documents will be provided electronically and in full sized hard copy. Trans Mountain will provide blacklined versions of revised documents to the extent practical to assist the City in their review. Trans Mountain is unable to provide blacklined versions of draft Condition filings.

Meetings will continue through construction planning and operations, or until mutually agreed. TWG meetings during construction and operation may be subject to revised Terms of Reference (TORs) to be determined by agreement between Trans Mountain and the City.

Accountability and Meeting Attendance

Trans Mountain's sponsor for the TWGs will be its David Safari, Vice President, Trans Mountain Expansion Project. As a member of the Kinder Morgan Limited (KML) Executive Team, Mr. Safari is accountable for construction of TMEP.

Attendees for subsequent meetings will be determined by both parties in advance of the meeting. Each party will designate a single point of contact within each organization to be responsible for coordinating the meetings, including required attendees. Attendance at TWG meetings by either party will be determined on an issue by issue basis; however, Trans Mountain commits to ensuring it has a decision maker at each meeting who is authorized to



TRANS MOUNTAIN

make decisions and commitments regarding the matters to be discussed, as established by each meeting's agenda and according to agreed to advance notice. The goal is to keep the meetings focused and results orientated. Attendees could include:

- decision making representatives from stakeholders' key departments affected by TMEP;
- representatives from TMEP Contractors, Engineering, Lands, Permitting, Traffic Management, Environment, Stakeholder Engagement and Communication as needed; and
- other external stakeholders who have an interest in the intended topic of discussion, as agreed to by both parties.

Reporting and Communicating

Following a meeting, Trans Mountain will provide relevant meeting documentation, including the meeting summary and Rolling Action Plan (RAP), as described below, to be reviewed for completeness. These documents will be revised and re-issued as required once reviewed by the City. Trans Mountain will seek revisions from the City on draft meeting summaries and the RAP. All edits will be accepted or differences of opinion documented.

Subject to the agreed to review process, as set out above, all outcomes from the TWGs will be posted to the Trans Mountain website at www.transmountain.com and summarized in filings to the NEB as per the schedule in Condition 49.

The City will endeavor to respond to information sharing comment packages within two weeks of receiving submission from Trans Mountain and Trans Mountain will consider and archive the City's responses.

Protocols and Mechanisms for Implementing Recommendations/Decisions

Trans Mountain will use a RAP of Mutual Interests to capture key topics of interest, concerns, disagreements, decisions and commitments made, and action items with dates assigned to both parties. Subject to the review processes set out above, the RAP will provide a cumulative archive of the City's comments, Trans Mountain's responses to the City's comments, and a summary of outcomes from any meetings, including issues/topics resolved.

Areas for which both parties are unable to find resolution will be documented as such, and Trans Mountain will include a rationale for the lack of resolution.

TMEP TWG Contacts*

Function	Name	Email	Phone
TMEP VP; KML Executive	David Safari	David_safari@transmountain.com	403-514-6767



TRANSMOUNTAIN

Sponsor			
Primary Contact	Kristjana Hawthorne	Kristjana_hawthorne@kindermorgan.com	604-790-5537
Senior Director, Pipeline Execution	Greg Toth	Greg_toth@kindermorgan.com	403-514-6490
Project Manager	John Macleod	John_macleod@transmountain.com	403-514-6599

* Subject to change upon notification

Municipal TWG Contacts

Function	Name	Email	Phone
Executive Contact	David Blain	blain@chilliwack.com	604-793-2907
Primary Contact	Rod Sanderson	sanderso@chilliwack.com	604-793-2907
Secondary Contact	Craig Wickham	wickham@chilliwack.com	604-793-2907



TRANS MOUNTAIN

TMEP Technical Working Group Proposed Revised TERMS OF REFERENCE District of Hope (DOH)

Version #	Date	Description	Further Action
1	28-Oct-16	Draft presented to DOH prior to December 15, 2016 initial Technical Working Group Meeting	Feedback requested
2	1-May-17	Draft revised by Trans Mountain to incorporate feedback from other municipalities that Trans Mountain feels is relevant to the DOH	Confirmation of the DOH's acceptance of these revisions by June 30, 2017
3	10-Jul-17	Draft TORs are finalized	Review and update accordingly upon feedback received from City

PURPOSE

On November 29, 2016, the Federal Governor in Council approved the Trans Mountain Expansion Project (TMEP or Project), subject to 157 Conditions attached to the Project Certificate of Public Convenience and Necessity (CPCN), which was issued by the National Energy Board (NEB) December 1, 2016. Trans Mountain advises commencement of construction will occur in late summer 2017 with an in-service date for the expanded pipeline and associated facilities and infrastructure of December 2019. Trans Mountain will seek guidance from the FVRD on topics of interest to the City.

Two Conditions address continuation of the Technical Working Groups (TWGs); Conditions 14 and 49 – see Appendix A.

SCOPE AND MANDATE

The intent of the TWG meetings between the DOH and TMEP is to act as a forum for discussing topics of mutual interest as they relate to TMEP, including the tracking and resolution of outstanding concerns. It is intended that the Terms of Reference and TWGs will improve communication including creating an opportunity to share information, discuss topics of mutual interest and resolve concerns, including those outstanding, within a set timeframe.

The focus of the TWGs may evolve (through design and construction phases of the Project, and into operations) and will include various topics of mutual interests related to the proposed TMEP. Trans Mountain aims to collaborate to address outstanding concerns.

TWG Goals

The following principles guide the TWG:



TRANS MOUNTAIN

- The TWG is a forum to exchange information related to TMEP; and is intended to ensure constructive discussions that are solutions oriented.
- It is assumed information discussed at TWG meetings can be shared in a public forum unless either party requests confidentiality.
- Subject to the processes set out below, discussions will be documented and filed with the NEB (as per Condition 49).
- Trans Mountain recognizes stakeholder participation in any TWG meeting does not imply endorsement for the Project, nor does it imply the DOH indirectly approving any permit applications or other submissions from TMEP.
- Where practical, Trans Mountain will endeavor to incorporate input received from the DOH during TWG meetings into its plans for the Project, and to provide rationale if input is not accepted or incorporated. In evaluating how to incorporate the input from the DOH, Trans Mountain will be guided by the principle that the Project should not place unnecessary cost, burden, or risk upon the DOH.

Topics

The topics discussed in the TWG meetings include, however, are not limited to:

- pipeline alignment within the DOH and within the scope of the TWG mandate,
- construction methodology
- timing and communication,
- socio-economic effects monitoring,
- protection and monitoring of municipal and community water sources,
- stakeholder land use,
- existing and future infrastructure,
- standards and by-law compliance,
- noise management
- traffic management, including access, egress, laydown areas, and parking for any TMEP related construction within the DOH boundaries
- construction safety,
- regional parks considerations,
- visual impacts and mitigation
- highway, utility, and land crossing issues, including conflicts with DOH's infrastructure and replacement (conflict resolution)
- watercourse crossings,
- emergency response and
- other interests identified by either party within the scope of the TWG mandate

Meeting Materials, Structure, Frequency and Details



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A meeting date, time, and location schedule will be set by agreement between the parties for regular monthly intervals. By agreement, the parties may choose to meet more frequently or to cancel a set monthly meeting. Meetings are intended to be in person to ensure ease of discussion; conference calls can be used when convenient and as needed. The TWG may agree to form subgroups to address specific technical matters with subject matter experts as required, including but not limited to:

- Traffic
- Utilities
- Emergency Management
- Environmental Restoration

Trans Mountain will provide a draft agenda to the DOH at least two weeks before a scheduled meeting. The DOH will provide any additional agenda items to Trans Mountain within a week of receiving the draft agenda. Trans Mountain will endeavor to prepare materials with as much advance notice as possible.

Trans Mountain will ensure that at least two weeks before a scheduled meeting, all documents relevant to the agenda items to be discussed at the meeting have been listed and provided to the primary contact for the DOH, listed below. Such documents include, however, not limited to design drawings, bylaw compliance packages, environmental reports, traffic control plans, material staging plans, plans related to any of the NEB or BCEAO conditions, and any other material requested by the DOH. Documents will be provided electronically and in full sized hard copy. Trans Mountain will provide blacklined versions of revised documents to the extent practical to assist the DOH in their review. Trans Mountain is unable to provide blacklined versions of draft Condition filings.

Meetings will continue through construction planning and operations, or until mutually agreed. TWG meetings during construction and operation may be subject to revised Terms of Reference (TORs) to be determined by agreement between Trans Mountain and the DOH.

Accountability and Meeting Attendance

Trans Mountain's sponsor for the TWGs will be its David Safari, Vice President, Trans Mountain Expansion Project. As a member of the Kinder Morgan Limited (KML) Executive Team, Mr. Safari is accountable for construction of TMEP.

Attendees for subsequent meetings will be determined by both parties in advance of the meeting. Each party will designate a single point of contact within each organization to be responsible for coordinating the meetings, including required attendees. Attendance at TWG meetings by either party will be determined on an issue by issue basis; however, Trans Mountain commits to ensuring it has a decision maker at each meeting who is authorized to



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make decisions and commitments regarding the matters to be discussed, as established by each meeting's agenda and according to agreed to advance notice. The goal is to keep the meetings focused and results orientated. Attendees could include:

- decision making representatives from stakeholders' key departments affected by TMEP;
- representatives from TMEP Contractors, Engineering, Lands, Permitting, Traffic Management, Environment, Stakeholder Engagement and Communication as needed; and
- other external stakeholders who have an interest in the intended topic of discussion, as agreed to by both parties.

Reporting and Communicating

Following a meeting, Trans Mountain will provide relevant meeting documentation, including the meeting summary and Rolling Action Plan (RAP), as described below, to be reviewed for completeness. These documents will be revised and re-issued as required once reviewed by the DOH. Trans Mountain will seek revisions from the City on draft meeting summaries and the RAP. All edits will be accepted or differences of opinion documented.

Subject to the agreed to review process, as set out above, all outcomes from the TWGs will be posted to the Trans Mountain website at www.transmountain.com and summarized in filings to the NEB as per the schedule in Condition 49.

The DOH will endeavor to respond to information sharing comment packages within two weeks of receiving submission from Trans Mountain and Trans Mountain will consider and archive the DOH's responses.

Protocols and Mechanisms for Implementing Recommendations/Decisions

Trans Mountain will use a RAP of Mutual Interests to capture key topics of interest, concerns, disagreements, decisions and commitments made, and action items with dates assigned to both parties. Subject to the review processes set out above, the RAP will provide a cumulative archive of the DOH's comments, Trans Mountain's responses to the DOH's comments, and a summary of outcomes from any meetings, including issues/topics resolved.

Areas for which both parties are unable to find resolution will be documented as such, and Trans Mountain will include a rationale for the lack of resolution.

TMEP TWG Contacts*

Function	Name	Email	Phone
TMEP VP; KML Executive	David Safari	David_safari@transmountain.com	403-514-6767



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Sponsor			
Primary Contact	Rhonda Eden	rhonda_eden@transmountain.com	250-319-0818
Senior Director, Pipeline Execution	Greg Toth	Greg_toth@kindermorgan.com	403-514-6490
Project Manager	Tim Saunders	tim_saunders@transmountain.com	403-514-6754

* Subject to change upon notification

Municipal TWG Contacts

Function	Name	Email	Phone
Executive Contact	John Fortoloczky	jfortoloczky@hope.ca	604-869-1149
Primary Contact	John Fortoloczky	jfortoloczky@hope.ca	604-869-1149
Secondary Contact	Kevin Dicken	kdicken@hope.ca	604-869-5671



TRANS MOUNTAIN

TMEP Technical Working Group Proposed Revised TERMS OF REFERENCE Fraser Valley Regional District (FVRD)

Version #	Date	Description	Further Action
1	28-Oct-16	Draft presented to FVRD prior to January 13, 2017 initial Technical Working Group Meeting	Feedback requested
2	1-May-17	Draft revised by Trans Mountain to incorporate feedback from other municipalities that Trans Mountain feels is relevant to the FVRD	Confirmation of the FVRD's acceptance of these revisions by June 30, 2017
3	10-Jul-17	Draft TORs are finalized	Review and update accordingly upon feedback received from FVRD

PURPOSE

On November 29, 2016, the Federal Governor in Council approved the Trans Mountain Expansion Project (TMEP or Project), subject to 157 Conditions attached to the Project Certificate of Public Convenience and Necessity (CPCN), which was issued by the National Energy Board (NEB) December 1, 2016. Trans Mountain advises commencement of construction will occur in late summer 2017 with an in-service date for the expanded pipeline and associated facilities and infrastructure of December 2019. Trans Mountain will seek guidance from the FVRD on topics of interest to the City.

Two Conditions address continuation of the Technical Working Groups (TWGs); Conditions 14 and 49 – see Appendix A.

SCOPE AND MANDATE

The intent of the TWG meetings between the FVRD and TMEP is to act as a forum for discussing topics of mutual interest as they relate to TMEP, including the tracking and resolution of outstanding concerns. It is intended that the Terms of Reference and TWGs will improve communication including creating an opportunity to share information, discuss topics of mutual interest and resolve concerns, including those outstanding, within a set timeframe.

The focus of the TWGs may evolve (through design and construction phases of the Project, and into operations) and will include various topics of mutual interests related to the proposed TMEP. Trans Mountain aims to collaborate to address outstanding concerns.

TWG Goals

The following principles guide the TWG:



TRANS MOUNTAIN

- The TWG is a forum to exchange information related to TMEP; and is intended to ensure constructive discussions that are solutions oriented.
- It is assumed information discussed at TWG meetings can be shared in a public forum unless either party requests confidentiality.
- Subject to the processes set out below, discussions will be documented and filed with the NEB (as per Condition 49).
- Trans Mountain recognizes stakeholder participation in any TWG meeting does not imply endorsement for the Project, nor does it imply the FVRD indirectly approving any permit applications or other submissions from TMEP.
- Where practical, Trans Mountain will endeavor to incorporate input received from the FVRD during TWG meetings into its plans for the Project, and to provide rationale if input is not accepted or incorporated. In evaluating how to incorporate the input from the FVRD, Trans Mountain will be guided by the principle that the Project should not place unnecessary cost, burden, or risk upon the FVRD.

Topics

The topics discussed in the TWG meetings include, however, are not limited to:

- pipeline alignment within the FVRD jurisdiction and within the scope of the TWG mandate,
- construction methodology
- timing and communication,
- socio-economic effects monitoring,
- protection and monitoring of municipal and community water sources,
- stakeholder land use,
- existing and future infrastructure,
- standards and by-law compliance,
- noise management
- traffic management, including access, egress, laydown areas, and parking for any TMEP related construction within the FVRD boundaries
- construction safety,
- regional parks considerations,
- visual impacts and mitigation
- highway, utility, and land crossing issues, including conflicts with FVRD's infrastructure and replacement (conflict resolution)
- watercourse crossings,
- emergency response and
- other interests identified by either party within the scope of the TWG mandate

Meeting Materials, Structure, Frequency and Details



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A meeting date, time, and location schedule will be set by agreement between the parties for regular monthly intervals. By agreement, the parties may choose to meet more frequently or to cancel a set monthly meeting. Meetings are intended to be in person to ensure ease of discussion; conference calls can be used when convenient and as needed. The TWG may agree to form subgroups to address specific technical matters with subject matter experts as required, including but not limited to:

- Traffic
- Utilities
- Emergency Management
- Environmental Restoration

Trans Mountain will provide a draft agenda to the FVRD at least two weeks before a scheduled meeting. The FVRD will provide any additional agenda items to Trans Mountain within a week of receiving the draft agenda. Trans Mountain will endeavor to prepare materials with as much advance notice as possible.

Trans Mountain will ensure that at least two weeks before a scheduled meeting, all documents relevant to the agenda items to be discussed at the meeting have been listed and provided to the primary contact for the FVRD, listed below. Such documents include, however, not limited to design drawings, bylaw compliance packages, environmental reports, traffic control plans, material staging plans, plans related to any of the NEB or BCEAO conditions, and any other material requested by the FVRD. Documents will be provided electronically and in full sized hard copy. Trans Mountain will provide blacklined versions of revised documents to the extent practical to assist the FVRD in their review. Trans Mountain is unable to provide blacklined versions of draft Condition filings.

Meetings will continue through construction planning and operations, or until mutually agreed. TWG meetings during construction and operation may be subject to revised Terms of Reference (TORs) to be determined by agreement between Trans Mountain and the FVRD.

Accountability and Meeting Attendance

Trans Mountain's sponsor for the TWGs will be its David Safari, Vice President, Trans Mountain Expansion Project. As a member of the Kinder Morgan Limited (KML) Executive Team, Mr. Safari is accountable for construction of TMEP.

Attendees for subsequent meetings will be determined by both parties in advance of the meeting. Each party will designate a single point of contact within each organization to be responsible for coordinating the meetings, including required attendees. Attendance at TWG meetings by either party will be determined on an issue by issue basis; however, Trans Mountain commits to ensuring it has a decision maker at each meeting who is authorized to



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make decisions and commitments regarding the matters to be discussed, as established by each meeting's agenda and according to agreed to advance notice. The goal is to keep the meetings focused and results orientated. Attendees could include:

- decision making representatives from stakeholders' key departments affected by TMEP;
- representatives from TMEP Contractors, Engineering, Lands, Permitting, Traffic Management, Environment, Stakeholder Engagement and Communication as needed; and
- other external stakeholders who have an interest in the intended topic of discussion, as agreed to by both parties.

Reporting and Communicating

Following a meeting, Trans Mountain will provide relevant meeting documentation, including the meeting summary and Rolling Action Plan (RAP), as described below, to be reviewed for completeness. These documents will be revised and re-issued as required once reviewed by the FVRD. Trans Mountain will seek revisions from the City on draft meeting summaries and the RAP. All edits will be accepted or differences of opinion documented.

Subject to the agreed to review process, as set out above, all outcomes from the TWGs will be posted to the Trans Mountain website at www.transmountain.com and summarized in filings to the NEB as per the schedule in Condition 49.

The FVRD will endeavor to respond to information sharing comment packages within two weeks of receiving submission from Trans Mountain and Trans Mountain will consider and archive the FVRD's responses.

Protocols and Mechanisms for Implementing Recommendations/Decisions

Trans Mountain will use a RAP of Mutual Interests to capture key topics of interest, concerns, disagreements, decisions and commitments made, and action items with dates assigned to both parties. Subject to the review processes set out above, the RAP will provide a cumulative archive of the FVRD's comments, Trans Mountain's responses to the FVRD's comments, and a summary of outcomes from any meetings, including issues/topics resolved.

Areas for which both parties are unable to find resolution will be documented as such, and Trans Mountain will include a rationale for the lack of resolution.

TMEP TWG Contacts*

Function	Name	Email	Phone
TMEP VP; KML Executive	David Safari	David_safari@transmountain.com	403-514-6767



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Sponsor			
Primary Contact	Rhonda Eden	Rhonda_eden@transmountain.com	250-319-0818
Secondary Contact	Kristjana Hawthorne	Kristjana_hawthorne@kindermorgan.com	604-790-5537
Senior Director, Pipeline Execution	Greg Toth	Greg_toth@kindermorgan.com	403-514-6490
Project Manager	John Macleod	John_macleod@transmountain.com	403-514-6599

* Subject to change upon notification

Municipal TWG Contacts

Function	Name	Email	Phone
Executive Contact	Paul Gipps	pgipps@fvrd.bc.ca	604-702-5000
Primary Contact	Alison Stewart	astewart@fvrd.bc.ca	604-702-5054

TMEP Technical Working Group TERMS OF REFERENCE
City of Burnaby

Version #	Date	Description	Further action
1	October 28, 2016	Draft presented to City of Burnaby (via email)	Feedback requested
2	April 3, 2017	Draft revised by City of Burnaby (via email & reviewed in April 4 TWG)	TM to review and provide feedback to the City of Burnaby
3	April 25, 2017	Draft edited by Trans Mountain presented to City of Burnaby (via email)	For review in May 3, 2017 TWG meeting
4	May 3, 2017	Draft 2 reviewed at May 3, 2017 TWG meeting	Emailed to City of Burnaby on May 9, 2017
5	June 30, 2017	Draft 3 reviewed at June 27, 2017 TWG meeting	Emailed to City of Burnaby on July 4, 2017
6	July 14, 2017	Draft 5 reviewed at July 5, 2017 TWG meeting	Emailed to City of Burnaby on July 24, 2017
	Sept 6, 2017	Accepted by TWG members	

PURPOSE

On November 29, 2016, the Federal Governor in Council approved the Trans Mountain Expansion Project (TMEP or Project), subject to 157 Conditions attached to the Project Certificate of Public Convenience and Necessity (CPCN), which was issued by the National Energy Board (NEB) December 1, 2016. On January 10, 2017 the British Columbia Environmental Assessment Office (BCEAO) issued an environmental assessment certificate for the TMEP, subject to 37 Conditions. Trans Mountain advises commencement of construction will occur in late summer 2017 with an in-service date for the expanded

pipeline and associated facilities and infrastructure of December 2019. Trans Mountain will seek guidance from the City of Burnaby (City) on topics of interest to the City.

Two of the NEB Conditions address continuation of the Technical Working Groups (TWGs); Conditions 14 and 49 – see Appendix A.

SCOPE AND MANDATE

Trans Mountain acknowledges that the City opposes the TMEP. The intent of the TWG meetings between the City and TMEP is to act as a forum for discussing topics of mutual interest as they relate to TMEP, including the tracking and resolution of outstanding concerns as further described in this section. It is intended the TWG will improve communication between the City and TMEP and create an opportunity to share information, discuss topics of mutual interest and resolve concerns related to technical details for construction and timing of TMEP. Trans Mountain is open to discussions of topics outside of the TWG scope in other forums. Discussions outside the TWG could include items remaining outstanding from the NEB process within a set timeframe.

The focus of the TWGs may evolve through the design, construction and operation phases of the Project and will include various topics of mutual interests related to the TMEP. The TMEP aims to collaborate to address outstanding concerns.

TWG Goals

The following principles guide the TWG:

- The TWG is a forum to exchange information related to the TMEP and is intended to ensure constructive discussions that are solutions-oriented.
- It is assumed information discussed at TWG meetings can be shared in a public forum unless either party requests confidentiality in writing.
- Subject to the processes set out below, discussions will be documented and filed with the NEB (as per Condition 49).
- Trans Mountain recognizes stakeholder participation in any TWG meeting does not imply endorsement for the TMEP, nor does it imply the City is indirectly approving any permit applications or other submissions from TMEP.
- The City commits to review and process TMEP permit applications and provide comments to TMEP with regards to bylaw compliance. Where practicable the TMEP will endeavor to incorporate input received from the City during TWG meetings into its plans for TMEP within the boundaries of the City, and subject to the process set out below, provide rationale if input is not accepted or incorporated. In evaluating how to incorporate the input of the City into the plans for TMEP, Trans Mountain will be guided by the principle that the Project should not place unnecessary cost, burden or risk upon the City.

Topics

The topics to be discussed in the TWG meetings include, however are not limited to:

- a) pipeline alignment within City

- b) pipeline abandonment within the City as related to the 24" Westridge delivery pipeline (between Burnaby Storage Terminal and Westridge Marine Terminal)
- c) Burnaby Storage Terminal
- d) Westridge Marine Terminal
- e) marine traffic as it relates to the process of docking and disembarking vessels at Westridge Marine Terminal
- f) from pre to post-construction emergency response, including mitigation
- g) fire safety and evacuation
- h) standards and by-law compliance
- i) stakeholder land use and information sharing
- j) environmental impacts and mitigation including habitat and tree impacts, tree loss and erosion sediment control
- k) socio-economic effects monitoring and mitigation
- l) air quality emissions, fugitive emissions and green house gas impacts and mitigation from TMEP activities
- m) visual impacts and mitigation
- n) watercourse crossings
- o) construction methodology and construction safety for any TMEP construction related work within the City boundaries
- p) access, egress, lay-down areas, worker parking for any TMEP construction related work within the City boundaries
- q) traffic management
- r) timing and communication
- s) existing and future infrastructure
- t) avoidance of operational impacts on City interests
- u) regional and City parks considerations
- v) highway, utility and land crossing issues including conflicts with City infrastructure and replacement (conflict resolution)
- w) cost recovery from the TMEP by City
- x) commitments made by the TMEP
- y) other interests identified by either party

Trans Mountain will provide notice of compliance filings . Input into regulatory documents requiring consultation will continue to be sought during the specified consultation windows. Input outside the consultation window is welcomed and will be considered for input to the extent practicable. The TMEP is open to reviewing Condition details with the City as requested.

Meeting Materials, Structure, Frequency, and Details

A meeting date, time and location schedule will be set by mutual agreement between the parties at regular monthly intervals. By agreement, the parties may choose to meet more frequently or to cancel a set monthly meeting. Meetings are intended to be in person to ensure ease of discussion; conference calls can be used when convenient and as needed. The TWG may, by agreement, form subgroups to address specific technical matters with subject matter experts as required, including but not limited to:

- Traffic

- Utilities
- Emergency Management
- Environment

TMEP will provide a draft agenda to the City at least two weeks before a scheduled TWG meeting. City will provide any additional agenda items to TMEP within one week of receiving the draft agenda, and TMEP will include these items in the agenda. TMEP will endeavor to prepare materials with as much advance notice as possible.

TMEP will ensure that, at least two weeks before a scheduled meeting, all documents relevant to the agenda items to be discussed at the scheduled meeting have been listed and provided to the Primary Contact for the City, listed below. Such documents include, however are not limited to:

- design drawings
- environmental reports
- traffic control plans
- material staging plans
- plans relating to any of the NEB or BCEAO conditions
- any other material requested by the City

Documents will be provided electronically and in full sized hard copy. The TMEP will provide blacklined versions of revised documents to the extent practicable to assist the City in their review. The TMEP is unable to provide black lined versions of draft filings.

Meetings may continue through construction planning, construction and operations of the Project or until mutually agreed. TWG meetings during construction and operation of the Project may be subject to revised Terms of Reference to be determined by agreement between the City and the TMEP.

Accountability and Meeting Attendance

Trans Mountain's sponsor for the TWGs will be David Safari, Vice President, Trans Mountain Expansion Project. As a member of the Kinder Morgan Canada Executive Team, Mr. Safari is accountable for construction of TMEP, subject to approvals. Mr. Safari will attend the initial TWG meeting for each stakeholder to reconvene the conversation and subsequent ones where applicable.

The City's sponsor for the TWGs will be Dipak Dattani, Deputy Director Engineering. Mr. Dattani will attend the initial TWG meeting and subsequent meetings where applicable.

Attendees for subsequent meetings will be determined by both parties in advance of the meetings. Each party will designate a single point of contact from within each organization who will be responsible for coordinating the meetings, including required attendees. Attendance at TWG meetings by either party will be determined on an issue by issue basis; however, TMEP commits to ensuring it has a decision maker at each meeting who is authorized to make decisions and commitments regarding the matters to be discussed, as established by each meeting's agenda and according to agreed to advance notice. The goal is to keep the meetings focused and results oriented. Attendees could include:

- decision-making representatives from stakeholders' key departments affected by the proposed TMEP
- representatives from TMEP Contractors, Engineering, Lands, Permitting, Traffic Management, Environment, Stakeholder Engagement and Communication as needed
- other external stakeholders who have an interest in the intended topic of discussion, as agreed to by both parties

Reporting and Communicating

Following a meeting, TMEP will provide to the City relevant meeting documentation including the meeting summary and the Rolling Action Plan (RAP) as described below, to be reviewed for completeness. These documents will be revised and re-issued as required once reviewed by the City. The TMEP will seek revisions from City on draft meeting summaries and the RAP. All edits will be accepted or differences of opinions documented. Furthermore, the TMEP agrees all reporting and communication with respect to the TWG TMEP will clearly state the TMEP-related work does not imply the City approval. Where the City responds to TMEP communications, it does not represent the City's endorsement of TMEP.

Subject to the agreed to review process as set out above, all outcomes from the TWG will be posted on the TMEP website www.transmountain.com and summarized in filings to the NEB as per the schedule provided in Condition 49.

The City will endeavor to respond to information sharing comment packages within two weeks of receiving a submission from Trans Mountain, and Trans Mountain will consider and archive the City's responses.

Protocols and Mechanisms for Implementing Recommendations/Decisions

Trans Mountain will use a RAP of Mutual Interests to capture key topics of interest, concerns, disagreements, decisions and commitments made and action items with dates assigned to the parties. Subject to the review process set out above, the RAP will provide a cumulative archive of the City's comments, Trans Mountain responses to the City's comments, and a summary of outcomes from any meetings, including issues/topics resolved.

Areas for which both parties are unable to find resolution will be documented as such, and Trans Mountain will include a rationale for the lack of resolution

TMEP TWG Contacts*

Function	Name	Email	Phone
Executive Sponsor	David Safari	David_safari@transmountain.com	403.514.6767
Primary Contact	Lexa Hobenshield	Lexa_hobenshield@kindermorgan.com	604.809.9869
Director Lower Mainland TMEP	Randy Brake	Randy_brake@transmountain.com	403.514.6515
Director Engineering TMEP	Peter Poos	Peter_poos@transmountain.com	403.514.6549

City of Burnaby TWG Contacts*

Function	Name	Email	Phone
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Primary Contact	Dipak Dattani	dipak.dattani@burnaby.ca	604-294-7460
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* Subject to change upon notification

Reviewed and Approved by:



David Safari

Sup 21, 2017

VP, TMEP

TMEP Technical Working Group TERMS OF REFERENCE

Township of Langley

June 19, 2017

PURPOSE

On November 29, 2016 the Federal Governor in Council approved the Trans Mountain Expansion Project (TMEP or Project), subject to 157 Conditions attached to the Project Certificate of Public Convenience and Necessity (CPCN), which was issued by the National Energy Board (NEB) December 1, 2016. Trans Mountain advises that commencement of construction is September 2017 with the in-service date for the expanded pipeline and associated facilities and infrastructure will be December 2019.

Two of these NEB Conditions address continuation of the Technical Working Groups (TWGs); Conditions 14 and 49 – see Appendix A.

SCOPE AND MANDATE

The intent of the TWG meetings between the Township of Langley (TOL) and TMEP is to act as a forum for discussing topics of mutual interest as they relate to the Project, including the tracking and resolution of outstanding concerns. It is intended that the TWGs (operating in accordance with these Terms of Reference) will improve communication between TOL and TMEP, and create an opportunity to share information, discuss topics of mutual interest, and resolve concerns related to technical details for construction and timing of the Project. TMEP is open to discussions of topics outside the TWG scope in other forums, within a set timeframe. Discussions outside TWGs could include items considered outstanding by the TOL.

The focus of the TWGs may evolve through the design, construction, and operation phases of the Project and will include various topics of mutual interests related to the Project. TMEP will aim to collaborate to address TOL's outstanding concerns.

TWG Principles

The following principles guide the TWG:

- The TWG is a forum to exchange information related to the Project and is intended to ensure constructive discussions that are solutions-oriented in nature.
- It is assumed information discussed at TWG meetings can be shared in a public forum unless either party requests confidentiality.
- Subject to the processes set out below, discussions will be documented and filed with the NEB (as per Condition 49).
- Trans Mountain recognizes stakeholder participation in any TWG meeting does not imply endorsement for the Project, nor does it imply the stakeholder indirectly approving any submissions related to the Project.

- TMEP will endeavor to incorporate input received from TOL during TWG meetings into its plans for the Project within the boundaries of the TOL, where practical, and, subject to the processes set out below, to provide rationale if input is not accepted or incorporated. In evaluating TOL's input into the plans for the Project, TMEP will be guided by the principle that to the extent practical the Project will not place unnecessary or additional cost, burden or risk upon the TOL or its operations.

Topics

The topics to be discussed in the TWG meetings include, however are not limited to:

- a) pipeline alignment within TOL boundaries and within the scope of the TWG mandate,
- b) construction methodology,
- c) timing and communication,
- d) socio-economic effects monitoring and mitigation,
- e) protection and monitoring of municipal and community water sources,
- f) stakeholder land use,
- g) existing and future infrastructure,
- h) standards and by-law compliance,
- i) monitoring, assessing, avoiding and mitigating impacts of the Project on TOL interests, assets and infrastructure,
- j) traffic and noise management,
- k) construction safety,
- l) regional parks considerations,
- m) watercourse crossings,
- n) commitments made by TMEP from time to time, and
- o) other interests identified by either party, within the scope of the TWG mandate

Without limiting the generality of the topics listed above, the TWG will discuss the applicable NEB conditions in a timely manner and within the current Project Execution Schedule such that TOL has the opportunity for review and input into TMEP inventories, assessments, plans and other matters that may impact TOL.

TMEP will comply with the requirement to engage in Consultation (as defined in the CPCN) with TOL where such Consultation is prescribed by the CPCN. Without limiting the foregoing, input into regulatory documents requiring Consultation will continue to be sought during the specified NEB Consultation windows. Input outside the NEB Consultation window is welcomed and will be considered for input to the extent practical. TMEP is open to reviewing Condition details with TOL as requested.

Meeting Materials, Structure, Frequency, and Details

A meeting date, time and location schedule will be set by mutual agreement between the parties for regular monthly intervals. By agreement, the parties may choose to meet more frequently or to cancel a set monthly meeting. Meetings are intended to be in person to ensure ease of discussion; conference calls can be used by agreement where convenient and as needed. The

TWG may, by agreement of the parties, form subgroups to address specific technical matters with subject matter experts as required.

TMEP will aim to provide a draft agenda to TOL at least three weeks, but no later than one week, before a scheduled TWG meeting. TOL will aim to provide any additional agenda items to TMEP within one week of receiving the draft agenda, and TMEP will endeavour to include these items in the agenda. TMEP will endeavor to prepare materials with as much advance notice as possible.

TMEP will ensure that, at least two weeks before a scheduled meeting, all documents relevant to the agenda items to be discussed at the scheduled meeting have been listed and provided to the Primary Contact for TOL, listed below. Such documents include, but are not limited to: design drawings, environmental reports, traffic control plans, material staging plans, plans relating to any of the NEB conditions listed for discussion at the meeting, and any other material requested by TOL. TMEP will provide relevant documents electronically via email to the primary contact at TOL. Hard copy and blackline copies will be provided if and where practical. TMEP is unable to provide blackline versions of draft filings.

Meetings will continue through construction planning, construction and until the start of operations unless both parties agree all issues are resolved and the TWG is no longer required or until mutually agreed. TWG meetings during construction and operation may be subject to revised Terms of Reference to be determined by agreement between TOL and TMEP.

Accountability and Meeting Attendance

TMEP's accountable officer for the TWGs is David Safari, Vice President TMEP. As a member of the Kinder Morgan Canada Executive Team, Vice President TMEP is accountable for the execution of construction of TMEP and accountable for implementing the Terms of Reference. The Vice President, TMEP offered to attend the initial TWG meeting for each stakeholder, and subsequent meetings as appropriate. The Director, Engineering, being responsible for the engineering for the Project, and the Director, Lower Mainland/Facilities, responsible for pipeline construction in the Lower Mainland and facilities, have been designated by Vice President, TMEP to attend and lead TWG meetings on behalf of the Vice President, TMEP, where the Vice President is not able to attend.

TOL's sponsor for the TWGs will be Roeland Zwaag, Director, Public Works. Mr. Zwaag will attend the initial TWG meeting and subsequent meetings where applicable.

Attendees for subsequent meetings will be determined by both parties in advance of the meetings. Each party will designate a single point of contact from within each organization who will be responsible for coordinating the meetings, including required attendees. Attendance at TWG meetings by either party will be determined on an issue by issue basis; however, Trans Mountain commits to ensuring that it has a decision maker at each meeting who is authorized to

make decisions and commitments regarding the matters to be discussed, as established by each meeting's agenda and according to agreed to advance notice. The goal is to keep the meetings focused and results orientated. Attendees could include:

- decision making representatives from stakeholders' key departments affected by TMEP;
- representatives from TMEP Contractors, Engineering, Lands, Permitting, Traffic Management, Environment, Stakeholder Engagement and Communication as needed; and
- other external stakeholders who have an interest in the intended topic of discussion, as agreed to by both parties.

Reporting and Communicating

Within two to three weeks following a meeting, TMEP will provide to TOL relevant meeting documentation including the draft meeting summary, draft list of outstanding issues and the draft Rolling Action Plan (as described below), to be reviewed for completeness and accuracy. TMEP will seek and review revisions from TOL on draft meeting summaries, draft list of outstanding issues and the draft RAP within a set timeframe. TMEP will revise and re-issue the meeting summary, the list of outstanding issues and the RAP as required once reviewed by TOL.

All edits to meeting summaries, the list of outstanding issues and the RAP will be accepted or differences of opinions will be documented. In the event the parties are unable to reach agreement, TMEP reserves the right to file the reports with the NEB along with a notation that TOL did not approve the reports and the reasons for TOL's disapproval.

Subject to the above process, all outcomes from the TOL/TMEP TWG meetings will be summarized in filings to the NEB as per the schedule provided in Condition 49.

TMEP recognizes that it may not always be possible to include the most recent TOL's feedback in the next scheduled Condition 49 filing report due to the review timelines set out above. In this case, TMEP will file the report with the NEB noting that TOL's feedback is pending and will be included in future reports.

TOL will endeavor to respond to comment packages within two weeks of receiving a submission from Trans Mountain and submit to Trans Mountain for consideration and archiving.

Protocols and Mechanisms for Implementing Recommendations/Decisions

Trans Mountain will use a Rolling Action Plan (RAP) of Mutual Interests to capture key topics of interest and concern, decisions and commitments made and action items with dates assigned to the parties. Subject to the review process set out above, the RAP will provide a cumulative archive of TOL comments, Trans Mountain responses to TOL comments, a summary of outcomes and/or differences of opinion from any meetings, including issues/topics resolved.

Areas for which both parties are unable to find resolution will be documented as such, and Trans Mountain will include a rationale for the lack of resolution.

TMEP TWG Contacts*

Function	Name	Email	Phone
Vice President, TMEP; KMC Executive Sponsor;	David Safari	David_safari@transmountain.com	403-514-6767
Stakeholder Engagement Specialist; primary contact for TWG	Natalie Loban	Natalie_loban@kindermorgan.com	778-877-5576
Director Engineering, TMEP	Peter Poos	Peter_poos@transmountain.com	403-514-6549
Director, Lower Mainland TMEP	Randy Brake	Randy_brake@transmountain.com	403-514-6515
Sr. Project Director	Greg Toth	Greg_toth@kindermorgan.com	403-514-6490
Project Manager	John Macleod	John_macleod@kindermorgan.com	403-514-6599

Township of Langley TWG Contacts

Function	Name	Email	Phone
Executive Sponsor	Roeland Zwaag	rzwaag@tol.ca	604-532-6163
Primary Contact	Aaron Ruhl	aruhl@tol.ca	604-532-7301
Secondary Contact			

* Subject to change upon advance notification

TMEP Technical Working Group TERMS OF REFERENCE
City of Coquitlam
July 18, 2017

PURPOSE

On May 19, 2016, following a comprehensive review, the National Energy Board (NEB) concluded the Trans Mountain Expansion Project (the Project) is in the Canadian public interest and recommended the Federal Governor in Council approve the Project, subject to 157 Conditions. On December 1, 2017, the Project received its Certificate of Public Convenience and Necessity (CPCN). Receipt of the CPCN followed the Government of Canada granting approval for the Project on November 29, 2016. In addition, Trans Mountain received an environmental assessment certificate from the Province of BC on January 11, 2017, subject to 37 conditions. Construction is scheduled to commence in September 2017, with an in-service date for the expanded pipeline and associated facilities and infrastructure of December 2019.

In order to commence construction in September 2017, the TMEP continues to refine project details and plan for construction activities. Throughout all phases of TMEP construction and operations, Trans Mountain aims to work cooperatively with local governments and stakeholders along the proposed pipeline corridor.

There are 157 conditions from the NEB. Two of these Conditions address continuation of the Technical Working Groups (TWGs); Conditions 14 and 49 – see Appendix A.

SCOPE AND MANDATE

The TMEP Team invites key stakeholders to re-engage and participate in TWG meetings related to the TMEP. These TWGs will replace previous forms of TWGs, and are consistent with the Project's approach to open and transparent engagement and communications.

The intent of the TWGs is to act as a vehicle for discussing topics of mutual interest as they relate to TMEP, and in particular, the tracking and resolution of specific technical and construction issues. It is intended for the Terms of Reference and TWGs to improve communication, creating opportunities to share information, and resolve concerns related to technical details for construction and timing of TMEP. Trans Mountain is open to discussing topics outside the TWG scope in other forums, including the topics that remain outstanding as confirmed by the City of Coquitlam. Trans Mountain aims to establish a collaborative approach in addressing outstanding concerns.

TWG Goals

Trans Mountain proposes the following goals to guide the TWGs:

- The TWGs are a forum to exchange information technical in nature related to the Project and are intended to be constructive discussions that are solutions-oriented in nature.
- TWGs aim to bring closure to issues arising through the pre-construction and/or execution phase of the Project.
- It is assumed information discussed at TWG meetings can be shared in a public forum unless either party requests discretion.
- Discussions will be documented and summarized to the NEB (as per Condition 49)
- Trans Mountain recognizes stakeholder participation in any TWG meeting does not imply endorsement for TMEP, nor does it imply the stakeholder indirectly approving any permit applications or other submissions from TMEP.
- Trans Mountain endeavors to incorporate input received during TWG meetings into its plans for the TMEP where practical, and to provide rationale if input is not incorporated.

Topics and Activities

The topics discussed in the TWG meetings may include, however, are not limited to, pipeline alignment, construction methodology and timing, communication, socio-economic effects monitoring, protection and monitoring of municipal and community water sources, stakeholder land use, existing and future infrastructure, by-law compliance, operations, traffic management, construction safety, regional parks considerations, watercourse crossings, permitting and other interests identified by either party.

TWG activities may include, but are not limited to, meetings, workshops, site or field visits and technical briefings. These may be led by either party as determined by the participants, by mutual agreement.

Meeting Materials, Structure, Frequency, and Details

TMEP will aim to submit any relevant materials such as design drawings, environmental reports, permit applications, traffic control plans, material staging plans, and/or any other subject matter deemed of interest to the City of Coquitlam two weeks in advance of a scheduled meeting if it is to be tabled at said meeting. The City requests that these documents be submitted to the City's Utility Permit Review Process by email - utilitypermits@coquitlam.ca, with the exception of traffic control plans which are to be submitted through the Sidewalk & Lane Closure Request process found on the City's website under Licenses & Permits. Through these processes, drawings will be distributed to all relevant departments in the City and a comment package will be assembled and sent back to Trans Mountain and their designated consultants.

Meetings will be scheduled regularly as required, at a frequency agreed to between the City of Coquitlam and TMEP. The City requests that meeting be only held if materials have been submitted for review. If a meeting is deemed necessary it must be confirmed at least one week in advance by the issuance of an item specific agenda by either party. Dates, time and duration of specific meetings are to be selected based on mutual convenience. Subgroups within a TWG may be formed to address specific technical matters with subject matter experts as required.

The location of the TWG meetings will be determined in advance of the meeting, based on mutual convenience. Trans Mountain offers to visit stakeholder offices or host the meeting at a mutually agreed location. Meetings are intended to be in person to ensure ease of discussion and decision making, however, conference calls can be used where convenient and as needed.

Meetings will continue through construction until start of operations unless both parties agree all issues are resolved and the TWG is no longer required. Meetings during construction may continue in this or a different format, to be determined in discussions with TWG members.

Accountability and Meeting Attendance

TMEP's accountable officer for the TWGs is David Safari, Vice President, TMEP. As a member of the Kinder Morgan Canada Executive Team, Vice President TMEP is accountable for the execution of construction of TMEP and accountable for implementing the Terms of Reference. The Vice President, TMEP offered to attend the initial TWG meeting for each stakeholder, and subsequent meetings as appropriate. The Director, Engineering, being responsible for the engineering for the Project, and the Director, Lower Mainland/Facilities, responsible for pipeline construction in the Lower Mainland and facilities, have been designated by Vice President, TMEP to attend and lead TWG meetings on behalf of the Vice President, TMEP, where the Vice President is not able to attend.

The City of Coquitlam's sponsor for the TWGs will be Mark Zaborniak, Manager Design & Construction. Mr. Zaborniak will attend the initial TWG meeting and subsequent meetings as required.

Attendees for subsequent meetings will be determined by the City of Coquitlam and TMEP in advance based on an agreed agenda. The TMEP Team proposes a single point of contact for each party who is responsible for coordinating the meetings

and identifying required attendees. Attendance at TWG meetings by either party will be determined on an issue by issue basis, provided attendee(s) are able to make decisions on behalf of their party. The goal is to keep the meetings focused and results orientated. Attendees could include:

- decision making representatives from stakeholders’ key departments involved in discussions with respect to TMEP;
- Trans Mountain representatives or contractors with subject matter expertise in Engineering, Lands, Permitting, Construction, Traffic Management, Environment, Stakeholder Engagement and Communication as needed; and
- Utility companies, or other facility owners or operators who have an interest in the intended topic of discussion, as agreed to by both parties.

Protocols and Mechanisms for Implementing Recommendations/Decisions

Trans Mountain will use a Rolling Action Plan (RAP) of mutual interests to capture key topics of interest and concern, decisions made and action items with dates assigned to the parties. The RAP will assist TWG participants in keeping track of action items, prioritizing tasks, and aligning resources and decisions to those priorities. It will provide an accumulative archive of City comment packages, Trans Mountain responses to said comment packages, and a summary of outcomes from the meetings, including issues resolved.

Topics or issues for which both parties are unable to find resolution at the subgroup or TWG level will be brought forward to VP TMEP and/or City of Coquitlam Executive Sponsor. Areas for which both parties are unable to find resolution will be documented as such, and Trans Mountain will include a rationale for the lack of resolution.

Reporting and Communicating

Trans Mountain will prepare and distribute relevant meeting documentation, including agendas and meeting summaries, to TWG participants in advance of and following TWG meetings, respectively. These documents will be revised with any input from TWG participants and re-issued as required once reviewed by the relevant stakeholders.

The City will aim to prepare comment packages within two weeks of receiving a complete submission from Trans Mountain and submit to Trans Mountain for consideration and archiving. Following a meeting, relevant meeting documentation (i.e. RAP and meeting summary) will be distributed to meeting attendees to review for completeness. These will be revised and re-issued as required once reviewed by the relevant stakeholders within a set timeframe. Edits will be accepted or differences of opinions will be documented

All outcomes from the TWGs will be summarized in submissions made pursuant to Condition 49.

TMEP TWG Contacts*

Function	Name	Email	Phone
Vice President, TMEP; KMC Executive Sponsor;	David Safari	David_safari@transmountain.com	403-514-6767
Stakeholder Engagement Specialist; primary contact for TWG	Natalie Loban	Natalie_loban@kindermorgan.com	778-877-5576
Director Engineering, TMEP	Peter Poos	Peter_poos@transmountain.com	403-514-6549
Director, Lower Mainland TMEP	Randy Brake	Randy_brake@transmountain.com	403-514-6515
Project Engineer, KLTP	Grayson Doyle	Grayson.Doyle@kiewit.com	604-999-6907

City of Coquitlam TWG Contacts

Function	Name	Email	Phone
Executive Sponsor	Mark Zaborniak	mzaborniak@coquitlam.ca	604-927-3502

Primary Contact	Chad Braley	cbraley@coquitlam.ca	604-927-3513
Secondary Contact	Travis Hughes	thughes@coquitlam.ca	604-927-6310

* Subject to change upon notification

5.2 Appendix B: Letter Correspondence

May 1, 2017

Mayor Sharon Gaetz
City of Chilliwack
8550 Young Road
Chilliwack, BC, V2P 8A4

Dear Mayor Gaetz,

Since Trans Mountain first proposed the Trans Mountain Expansion Project (TMEP), through various meetings, correspondence and conversations, the City of Chilliwack has indicated its key priorities are to protect the aquifer and minimize impact to residents and its infrastructure in City streets.

Through ongoing studies and engagement, Trans Mountain has continued to address these priorities while balancing complex issues and often competing priorities. Trans Mountain remains committed to addressing the interests of the City.

We have reviewed your letter filed with the National Energy Board (NEB) dated March 29, 2017 (Filing ID [A5K1G8](#)) and letter to Ian Anderson dated April 19, 2017. We offer the following response to the concerns raised.

Letter filed with the NEB on April 3, 2017:

1. *Documentation from BC Hydro confirming there is no possibility of proceeding with alternate route P1 and details of the route P1 mitigation alternatives considered to protect the drinking water source for 76,000 Chilliwack Residents*

Trans Mountain investigated the option of routing within the BC Hydro right-of-way in Balmoral Park. To determine whether or not Trans Mountain could route in this location, BC Hydro was engaged by Trans Mountain and studied several pipeline alignment scenarios within the easement. Aspects included in these studies were the potential interaction of these two sets of infrastructure on one another as they related to public safety, safe operation and each system's integrity. Trans Mountain had previously addressed the City's interests in installing extra measures to protect the aquifer. The Sardis Vedder aquifer and the City of Chilliwack municipal water supply well intake/drawdown region were not raised as a concern



along these alignment scenarios by the city and therefore were not part of the focused scope of the study.

Viable options to route within the BC Hydro right-of-way were found to be very limited as a result of the BC Hydro study work, with the minimum offset requirement of 12 m resulting in the pipeline outside of the NEB-approved corridor. This alignment extended to outside the approved pipeline corridor for approximately 605 m and would have affected approximately 46 properties which had not previously been affected by the existing TMPL easement, with 43 homes being less than 20 m from TMEP Line 2 pipeline.

With this consideration, Trans Mountain decided to adhere to its first [routing principle](#), which is to route within the existing right-of-way where practical and parallel the existing Trans Mountain Pipeline (TMPL). This decision minimized the need for two corridors through the city, impacted slightly fewer residents and to a lesser degree, and significantly increased the offset from BC Hydro with respect to proximity concerns.

As of April 20, 2017, Trans Mountain has reached agreements with 76 percent of the property owners along the existing right-of-way in this area. Land acquisition discussions with affected property owners continue.

Attached is a copy of the report for your reference. Portions of the report have been redacted to protect BC Hydro commercial sensitivities. While the report is dated March, 2017, the work supporting the study occurred primarily in 2015 and decisions made with respect to the study outcomes and the report were finalized in fall 2016; commercial negotiations related to confidential nature of material contained within the report prevented issue of the report until this past March.

- 2. That the depth of the new pipeline be limited to a maximum of 2 metres below the existing surface*

Pipeline depth is defined as the distance from ground surface to top of pipe. Trans Mountain plans to comply with minimum pipeline depth of cover specified in Table 5.1.13 in Volume 4A of the Application to NEB (Filing ID [A55999](#)) which exceeds the minimum pipeline depth requirements outlined in CSA Z662-15. The typical depth of cover for the pipeline in this area will be about one (1) metre with 1.5 metres at road crossings. Buried utility crossings will also affect pipeline depth of cover and at those crossings; pipeline depth can typically range between 1.5 to 2.5



metres. For construction, Trans Mountain would on average require a trenched depth of just over 2 metres, which is above the water table of the aquifer.

3. *Require the use of pipeline design and construction methodologies that both reduces impacts to homes and properties and safeguards our drinking water source*

In order to execute pipeline installation with the least amount of impact on the residents of the Sardis area and minimize surface disruption along the pipeline alignment, Trans Mountain proposed two Horizontal Directional Drills (HDDs). Trans Mountain believes that HDD is the least disruptive construction method due to the close proximity of homes to the planned pipeline alignment and the space otherwise required by construction equipment necessary for traditional open-trench construction methodologies.

From our ongoing discussions, including emails and written correspondence, the City provided feedback that of the two construction methodologies presented for consideration, from the City's perspective open-trench was preferred over HDD as the proposed HDD bore path would intersect with the ground water surface level, which is at a depth of about 9 metres in the areas of the proposed corridor re-route. The desire to avoid impacts to drinking water was further emphasized by participants at the Trans Mountain's information session held on March 8, 2017.

To address these concerns, Trans Mountain modified its proposed construction method from HDD to traditional open-trench construction method for this segment of the pipeline and advised attendees at the information session of this change in preferred construction methodology.

To ensure affected landowners along the existing right-of-way were informed of Trans Mountain's revised construction method, a letter dated March 21, 2017 was issued to landowners confirming the proposed open-trench construction method, and requesting landowners contact Trans Mountain if they had questions or concerns. During this time, Trans Mountain's land representatives also personally contacted each affected landowner in the area to discuss any questions or concerns they may have regarding the proposed open-trench construction methods as well as land rights acquisition.

To minimize impact of open-trench construction, Trans Mountain will employ the following:



- Pre- and post-construction survey monitoring of the homes and properties. Trans Mountain will repair any impact caused by construction and fully restore properties to the same or better condition than prior to construction.
- Dedicated Land Representatives and a Community Liaison to respond to questions or concerns.
- Noise mitigation measures such as construction scheduling, equipment selection and maintenance, vehicle operation, position of noisy equipment, and selective use of enclosures.
- Dust mitigation measures such as speed control and watering.

As indicated in our letter to the City dated February 15, 2017, to address feedback from stakeholders about protecting the Sardis Vedder Aquifer, and a request from the City to employ the same protection measures afforded to watercourse crossings, Trans Mountain provided a comprehensive response to the City in Technical Memos dated May 26, 2015 and October 16, 2015 from Trans Mountain's engineering contractor, Hatch Mott MacDonald.

Since the NEB Application and as a result of discussions with the City, Trans Mountain has undertaken additional measures to protect the aquifer include installation of an additional mainline isolation valve at Kinkora golf course, heavy wall pipe and use of biodegradable hydraulic fluids in construction machinery between Silverthorne Road and Watson Road. These measures exceed already stringent regulatory requirements.

The Commitments to protect the aquifer fall under [NEB Condition 3](#), an overarching Condition, which states: Trans Mountain must implement or cause to be implemented, at minimum, all of the policies, practices, programs, mitigation measures, recommendations, and procedures for the protection of the environment included or referred to in its Project application or to which it otherwise committed on the record of the OH-001-2014 proceeding.

4. *Require automated vapour monitoring be added to the suite of leak detection measures, with monitoring locations as agreed upon by the City*

As communicated to the City in Technical Working Group meetings on December 14, 2016, and February 15, 2017, Trans Mountain does not agree that vapour monitoring is an effective method of leak detection. Trans Mountain requests that the City outline what it determines vapour monitoring to encompass in order to adequately respond to this request.



Prior to commencing operations, groundwater monitoring plans will be designed for all Project facilities in order to fulfill [NEB Condition 130](#). Trans Mountain will consider installation of monitoring wells in strategic locations along the pipeline route, such as highly vulnerable aquifers, where and if it is deemed beneficial to monitoring and protecting groundwater. Pertinent groundwater data collected during construction activities will be incorporated into the geo-database maintained by Kinder Morgan Canada (KMC), and used to develop a post-construction monitoring plan, where applicable.

5. Require the monitoring and spill response plans be developed in close cooperation with and to the satisfaction of the City

Safety is our number one priority. KMC has a comprehensive emergency management program based on a combination of regulatory compliance, operational need, industry best practice, and lessons learned through regular exercises and actual incidents. The goal of the program and associated [emergency response plans](#) is to mitigate risk and specifically the impact of a potential spill that might adversely impact the safety of people and the environment. These plans are continually reviewed, revised, and practiced along the pipeline route.

Our emergency management team is working to ensure that when the expansion goes into operation, the existing Emergency Management Program (EMP) has been effectively enhanced to accommodate the complete pipeline system, which consists of the existing pipeline, the twinned pipeline, and the associated infrastructure and facilities. Our goal is to operate, manage, and protect the pipeline system so that the EMP never has to be used, but be amply prepared in case a need should arise.

KMC owns and maintains a fleet of emergency response equipment strategically placed at various points along the Trans Mountain Pipeline. The equipment ensures that we are able to respond to any emergency in a timely manner in accordance to the Planning Standard.

The Planning Standard:

- Outlines the hazard assessment process, which includes a hazard listing (spill, fire, explosion)
- Defines maximum target response times to be used for response planning to warrant a prompt, safe, and effective response to an emergency



- Specifies the quantity and location of response equipment and personnel needed to achieve maximum target response times

Maximum targets are based, in part, on a variety of regulatory requirements and real response times, which are reviewed after any event requiring activation of the Emergency Response Plan to confirm that KMC has adequate resources and equipment to meet the maximum target response times.

For more information on the Planning Standard and equipment and response times, see:

<https://www.transmountain.com/equipment>

The City of Chilliwack has participated in workshops and meetings to enhance our Emergency Management Program. Engagement on our program is ongoing and we encourage the City to continue to participate to ensure that the City's feedback is considered.

Trans Mountain will be holding an equipment deployment on July 11-12, 2017 in the District of Hope. We would like to extend an invitation to Mayor and Council to attend the exercise as observers. If you are interested in this opportunity, please contact Kristjana Hawthorne.

Letter to Ian Anderson dated April 19, 2017:

1. *In addition to the concerns regarding the Sardis-Vedder Aquifer, we would like to know why Kinder Morgan has chosen to route the pipeline through the ecologically sensitive Browne Creek Wetlands instead of routing around them as was done in the Cheam Wetlands.*

Trans Mountain acknowledges that every watercourse crossing has value and through its [routing principles and construction planning](#) seeks to minimize impact to the environment to the extent practical. In the Chilliwack area, Trans Mountain determined the best routing option is to follow its existing right-of-way, which will have the least amount of environmental impact.

Trans Mountain outlined mitigation measures for the crossing of Browne Creek Wetlands in a letter to the City of Chilliwack dated February 28, 2017.

Further to the letter, Volume 5C of the Application includes a [Wetland Technical Report](#). As indicated in the report, the pipeline right-of-way construction will be routed to reduce potential impact on wetlands. A routing decision framework, which meets the intentions of the Federal



Policy on Wetland Conservation, will take into consideration factors such as minimizing length traversing environmentally significant areas and implementing construction and reclamation mitigation measures that have been shown to reduce disturbance to wetlands and ensure wetland function is not lost.

To avoid permanent loss of wetland function, Trans Mountain has developed measures to avoid or reduce the adverse effects of construction on wetland habitat, hydrological and biogeochemical functions. Project mitigation has been developed to allow affected wetlands to return to the same level of functionality as documented during pre-construction surveys following the temporary construction disturbances.

Summary

We look forward to the continued positive working relationship with the City, and will endeavor to respond to the City's interests in all topics in a timely fashion. Please feel free to contact me directly at 403-514-6767 or Kristjana Hawthorne, Stakeholder Engagement Specialist at 604-790-5537 and Kristjana_hawthorne@kindermorgan.com

Sincerely,

A handwritten signature in black ink, appearing to read 'David Safari', with a long horizontal flourish extending to the right.

David Safari
Vice-President
Trans Mountain Expansion Project

CC: Ian Anderson, President, Kinder Morgan Canada
David Blain, Director Planning and Engineering, City of Chilliwack
Rod Sanderson, Deputy Director, Engineering, City of Chilliwack
Kristjana Hawthorne, Stakeholder Engagement Specialist, TMEP

June 6, 2017

Mayor Sharon Gaetz
City of Chilliwack
8550 Young Road
Chilliwack, BC, V2P 8A4

Dear Mayor Gaetz,

**Re: Trans Mountain Expansion Project (Project)
Response to City of Chilliwack Letters of May 4, 2017 and April 27, 2017
NEB File: OF-Fac-Oil-T260-2013-03 02**

I am responding to your letter dated April 27, 2017 filed with the National Energy Board, and your letter to Mr. David Safari of Trans Mountain dated May 4, 2017. For many years, Trans Mountain and I have enjoyed a positive and respectful relationship with the City of Chilliwack, including the past five years during our pursuit of the Trans Mountain Expansion Project, and we seek to continue this valuable relationship.

I assure you we take your concerns seriously on all matters, and in particular, measures to protect the Sardis Vedder Aquifer, which supplies drinking water to your City's residents, and measures to protect the Browne Creek Wetland. We believe our dedication to addressing your concerns has been demonstrated by our ongoing contact with the City on these topics and we are committed to continuing to provide additional information and answer your questions. Trans Mountain is also committed to investing significant resources in mitigation measures to protect the Sardis Vedder Aquifer because we understand the importance of this vital resource to your community.

I would like to specifically address several points raised in your letters:

BC Hydro Study

In your May 4, 2017 letter to Mr. Safari, you expressed concern regarding the following statement made by Trans Mountain in its letter of May 1, 2017:



“The Sardis Vedder Aquifer and the City of Chilliwack municipal water supply well intake/drawdown region were not raised as a concern along these alignment scenarios by the city and therefore were not part of the focused scope of the study.”

I would like to clarify this statement. We agree the City has on many occasions raised protection of the Sardis Vedder Aquifer as its primary concern. I assure you we take seriously the protection of the Sardis Vedder Aquifer. The specific BC Hydro study discussed in our May 1, 2017 letter was conducted to validate whether or not Trans Mountain could safely co-exist with BC Hydro infrastructure within the same right-of-way. While that study did not specifically address concerns about the Sardis Vedder Aquifer, we have undertaken numerous other studies related to the significance of the Aquifer and the importance protecting it.

In your letter, you requested an unredacted copy of the BC Hydro study, the rights to which are held by BC Hydro. We understand BC Hydro has offered to provide the City with an unredacted copy of their study.

Browne Creek Wetland

Trans Mountain originally planned one long horizontal directional drill crossing for the Vedder River Crossing subject to geotechnical confirmation. Results of our investigation indicate unfavorable geotechnical conditions. Therefore, Trans Mountain will cross the Vedder River using the Direct Pipe trenchless construction method. Trans Mountain’s Environment team completed field investigations of every watercourse crossing along the proposed pipeline routes. Our studies show the Browne Creek Wetland is susceptible to seasonal flows and was documented to be dry in the summer months at the location of our pipeline crossing, which is our anticipated construction timeframe. Construction of the crossing during dry or very-low-flow conditions will ameliorate potential impacts to the Wetland.

We also acknowledge that recent restoration and habitat work has taken place in the Browne Creek area. Our construction footprint will not affect this restoration work. Attached you will find our response to City staff dated February 28, 2017, and associated technical memorandum outlining the mitigation measures we will employ to protect the Browne Creek Wetland. Any impacts will be restored to existing or better conditions.



Vapour Monitoring

Trans Mountain is evaluating leak detection methods and is committed to installing industry available leading leak detection technology for the Project.

Trans Mountain does not believe vapour monitoring is an effective method of leak detection for pipelines. Vapour monitoring consists of sensors protruding from the ground to monitor for petroleum odours in a given area. While vapour monitoring can be effective at facilities such as terminals and pump stations, it is not a reliable or efficient form of leak detection along linear infrastructure because:

- sensors can be rendered inoperative from groundwater, rainfall, soil moisture, or other interferences;
- location of sensors can impact reliability; and
- vapour monitoring has a high rate of false positives.

Vapour monitoring must be able to detect the compound it is monitoring and if the product being moved has low levels of volatility, the sensors must be calibrated accordingly for those specific products. Since Trans Mountain moves multiple products, it would require an unreasonable number of sensors in a given location to enable meaningful detection.

Sensors must be clearly marked and secured to avoid access and tampering. They must also be maintained on a regular basis and would need to be placed every few feet above ground, all of which would be invasive to homeowners and place an undue burden on their property enjoyment. Trans Mountain believes there are other methods of leak detection that are more reliable and less invasive for homeowners than vapor monitoring.

Trans Mountain plans to install an external leak detection system on the new pipeline segment crossing the Chilliwack region. The system will be selected based on available technology, reliability, and performance as demonstrated during testing over the past four years. The external leak detection system will be in addition to two computational pipeline model based leak detection systems maximizing our capability for detecting leaks.

Highway 1 Routing Option

In your letter dated April 27, 2017, you requested additional details around our decision to not follow Highway 1 through the City of Chilliwack. Our staff provided a comprehensive answer in our letter dated February 15, 2017. I have included it here for you:

Investigation of Routing Along Highway 1 Corridor



During Project development, Trans Mountain completed extensive routing studies within the Chilliwack area, with multiple alternative routes considered. These studies included a review of routing along Highway 1. These studies determined routing along Highway 1 would be impractical as it would potentially restrict MOTI's future ability to expand the highway. In addition there were several locations where the existing development of the highway did not allow enough room for the expanded 36" pipeline or presented engineering design and construction challenges which would be impractical for TMEP to address. These include:

- *Overpass at Gibson Road*
- *Overpass at Prest Road*
- *Underpass at Young Road*
- *Railway overpass at Vedder Road*
- *Vedder Road overpass*
- *Evans Road overpass*
- *West of Lickman Road*
- *Crossing of drainage canal at No. 2 Road*
- *No. 3 Road overpass and interchange*

At a later date, Trans Mountain also examined the possibility of routing along a railway corridor running from Vedder Road to Highway 1. However, this option was determined not feasible due to power poles located on either side of the railway for some sections of this right-of-way.

Other considerations for routing to Highway 1 included:

- *Difficulty in finding an acceptable corridor to met the City's priority to avoid City streets and not significantly impact new landowners*
- *TMEP would need to route back to TMPL at some point, options were restrictive*
- *TMEP has an existing right-of-way within the City and this meets with a desired outcome for the City of having one pipeline corridor*

Summary

As demonstrated in the attached correspondence between Trans Mountain and the City of Chilliwack, Trans Mountain has and will continue to take the City's concerns seriously and to provide fulsome responses.



I would like to extend an invitation to meet in person at your earliest convenience to discuss these matters further. Please contact Kristjana Hawthorne, Stakeholder Engagement Specialist at Kristjana_hawthorne@kindermorgan.com or 604-790-5537 to arrange a suitable date and time.

I look forward to a continued positive working relationship with you and your staff, and will endeavor to respond to the City's interests on all topics in a timely fashion.

Sincerely,

Ian Anderson
President, Kinder Morgan Canada

CC: David Safari, Vice President, TMEP
David Blain, Director Planning and Engineering, City of Chilliwack
Rod Sanderson, Deputy Director, Engineering, City of Chilliwack
Kristjana Hawthorne, Stakeholder Engagement Specialist, TMEP
Sheri Young, Secretary, National Energy Board (FILED ELECTRONICALLY)

Encl: Correspondence between Trans Mountain and the City of Chilliwack from January 2017 to May 2017

August 9, 2017

Mr. Aaron Ruhl
Manager, Engineering and Construction Services
Township of Langley
4700 224 Street
Langley, BC V2Z 1N4

Dear Mr. Ruhl,

By way of this letter, I would like to clarify any miscommunication regarding the geotechnical report availability for the crossing of Nathan and West creeks in Langley. Trans Mountain did not complete geotechnical studies for these watercourses and apologizes for any miscommunication in this regard. I would also like to take this opportunity to confirm our approach in selecting the crossing methodology for these watercourses that were discussed with the Township at the June 6, 2017 environment subgroup meeting and the July 24, 2017 Technical Working Group meeting.

Trans Mountain was aware of the sensitivity of both Nathan and West creeks from the outset of the Project in 2012. As such, both watercourses were initially considered for a trenchless crossing method. Nathan Creek was on the preliminary list of 84 watercourses identified in Stage 1 screening process for trenchless installation and listed in Table 5.1.5, Appendix D of Volume 4A of Application (Filing ID [A3S0Z5](#)). During the phased screening process, both Nathan and West Creeks were assessed as not meeting the criteria identified in Section 2.11.2 in Volume 4A of Application (Filing ID [A3S0Y8](#)), and as such were not considered for trenchless installation. The creeks are both about 20 m wide bank to bank and have flows much less than 8 m³ /s during the least risk fish window and, therefore, are suitable for an isolated trenched crossing method with appropriate environmental mitigation.

Further evaluation of the Potential for Serious Harm to Fish and Fish Habitat filed in February 2015 (Filing ID [A4I6C1](#) and [A4I6C7](#)) also concluded construction using an isolated crossing method inside the least risk work window would not generate serious harm to these creeks.

In addition, as discussed with the Township's environmental experts at the June 6, 2017 meeting, trenchless construction is not suitable for these watercourses for the following reasons:

- Trenchless construction involves a larger footprint at the entry and exit locations during construction to accommodate the drill
- Due to the Nathan and West Creeks being located in gullies, there is increased geological complexity of the crossing and setback distances and footprints required for trenchless construction



Trans Mountain understands the Township has concerns regarding erosion and sedimentation issues. We are confident with the isolated trenched crossing method and appropriate mitigation measures employed during construction, potential issues can and will be addressed and mitigated to the extent practical. The isolated trenched method and mitigation measures were discussed with the Township's environment experts in the environment subgroup meeting on June 6, 2017, and a summary of some of the key mitigation methods are provided below.

Mitigation Measures to Protect Nathan Creek and West Creek

Trans Mountain will implement mitigation measures to protect both Nathan Creek and West Creek. A detailed list of mitigation measures for watercourses is provided in [Section 14.0 of the Pipeline EPP \(Volume 2 of the Environmental Plans\)](#). Some of the key measures to be used during watercourse crossing construction and reclamation at Nathan and West Creeks to protect these watercourses include, however are not limited to, the following:

- Ensure all required permits and approvals are in place prior to construction.
- Construction scheduling will be used to reduce watercourse disturbance by constructing during dry conditions in the summer and during periods of lower flows instream.
- An isolated trenched crossing method (clean water bypass) will be used, inside the Least Risk Window (August 1 – September 15).
- A salvage of fishes from within the isolated channel sections will be completed by a Qualified Environmental Professional (QEP), prior to any instream excavation.
- Water quality monitoring will be carried out for the duration of instream works to ensure compliance with appropriate turbidity water quality guidelines adopted for the Project (Canadian Council of Ministers of the Environment [CCME] 2007).
- The work area across each watercourse will be narrowed to the extent practical.
- Temporary erosion and sediment control measures will be implemented to control sediment runoff into Nathan and West creeks prior to final clean-up and the establishment of permanent erosion and sediment control measures.
- Postpone instream water crossing construction if excessive flows or flood conditions are present or anticipated. Ensure all spoil piles are moved above the anticipated flood line. Resume activities when water levels have subsided or equipment and/or techniques suitable for conditions are deployed. See the Flood and Excessive Flow Contingency Plan provided in Appendix B of this EPP for more information (Please note, the need for this measure was specifically identified by the Township of Langley).
- Spoil material removed from the trenched crossing will be stored above the ordinary high water level. Stabilize this material, if warranted, to reduce the potential for runoff events to transport spoil material into a watercourse.
- Appropriate precautions will be taken to prevent deleterious substances (*e.g.*, gasoline, sediment, oil, cement or concrete residue) from entering the watercourses. Cleaning, fueling and servicing of equipment are to be conducted in an area, or in a manner, where spills or wash water will not contaminate surface water or groundwater resources. An emergency spill kit appropriate for the work being conducted is to be available on-site at all times.
- A QEP will be onsite to advise on the immediate reclamation of instream habitat and to ensure it restores equivalent pre-construction complexity.



- Existing willow, alder, and other similar vegetation will be salvaged and transplanted into the immediate banks of the watercourse where feasible, to facilitate faster stabilization of disturbed banks and riparian vegetation; additional revegetation of riparian buffer zones to reestablish riparian habitat functionality over time.
- Post-construction environmental monitoring will be completed following construction to confirm successful reclamation of each site, and to provide early identification of any remedial actions required.

Trans Mountain would be pleased to discuss these measures further at the future TWGs as required. Trans Mountain values our positive working relationship with the Township. We remain committed to working with the Township to resolve any outstanding concerns and minimize any potential impacts from the Project.

Sincerely,

Margaret Mears
Environment Lead
Trans Mountain Expansion Project

cc: Natalie Loban, Stakeholder Engagement, Trans Mountain Expansion Project
John Macleod, Project Manager, Trans Mountain Expansion Project
Calum Bonnington, GeoMarine Environmental Consultants Ltd.



September 19, 2017

Mr. Aaron Ruhl
Manager, Engineering and Construction Services
Township of Langley
4700 224 Street
Langley, BC V2Z 1N4

Dear Mr. Ruhl,

RE: Damage Prevention Regulations and 30 Metre Prescribed Area

I would like to thank the Township for meeting with Kinder Morgan Canada Limited (KML) on August 22, 2017, to discuss KML's damage prevention program. As requested, this letter provides further clarification of the 30 metre Prescribed Area, required pursuant to the Damage Prevention Regulation (DPR), and how it applies to situations where there is no statutory right-of-way (ROW).

Under the previous Pipeline Crossing Regulations, the 30 metre area was referred to as the Safety Zone. The original Safety Zone extended from either side of the pipeline ROW boundary. Where the pipeline was not in a ROW, i.e. within a road allowance, the Safety Zone was measured from the pipe. The Pipeline Crossing Regulations have been superseded by the DPR as of June 2016.

Under the DPR, the 30 metre Prescribed Area extends perpendicularly on each side from the pipe centreline, regardless of the pipeline location. The obligation on all persons to notify the pipeline operator as prescribed by the National Energy Board (NEB) remains. Notification to the pipeline operator should be completed by contacting the local One Call Centre. Kinder Morgan's Pipeline Protection team is also available at 1-888-767-0304 and will be pleased to answer questions or provide information.

With respect to the rights in untitled pipeline locations (roads, etc.), the Company's land rights to build, safely operate and maintain the pipeline are primarily established by the federal approval. The rights and obligations between the Company and the Road Owner are established by licenses of occupation set by the terms of the initial entry permission. The NEB has a process to establish the terms of the entry in cases where agreement is unable to be reached. For additional safety, the NEB Act establishes statutory obligations that both the Company and the Road Owner are legally required to follow. These safety rules are contained in the NEB's DPR that outline the obligations of the Company and the party seeking authorization.

Kinder Morgan Canada

7815 Shellmont Street, Burnaby, BC V5A 4S9

Tel: (604) 268-3000 Fax: (604) 268-3001 www.kindermorgan.com



The 30 metre Prescribed Area does not confer land rights to the Company. Rather, it has been established to ensure that activities within 30 metres of the pipe are undertaken safely to protect the public and the environment from damage that might result from any third-party activity. It should be viewed as a notification zone rather than a restrictive zone. KML is not looking to restrict activities, however KML needs to be notified of any proposed activities within 30 metres of the pipe to determine the appropriate measures necessary to protect the safety of the pipeline and the public.

The NEB requires regulated companies to establish appropriate policies and procedures as part of their damage prevention program necessary to prevent third-party damage.

Proximity (Crossing) Permit requirements

Where a pipeline ROW does not exist (i.e., roadway allowance), a Proximity (Crossing) Permit is required for any work within 7.5 metre of the pipe centreline. The Proximity (Crossing) Permit for a roadway allowance is used to complete a safety assessment. Where the statutory ROW does not exist, best practice to ensure the safety of the pipe and the public necessitates that KML require all other parallel buried utilities to maintain a 1.5 metre offset from the pipe (about the width of an excavator bucket).

Projected Limits

In response to the Township's inquiry regarding the removal of projected limits within the DPR referenced in the document entitled "Frequently Asked Questions Pertaining to the Draft NEB Damage Prevention Regulations," dated June 24, 2004, as well as the question of whether the prescribed area will supersede the removed projected limits to restrict activities:

The term "projected limits" refers to the projected limits of a pipeline ROW across a road allowance when the pipeline crosses the roadway. Under the previous Pipeline Crossing Regulations, pipeline operators were allowed to restrict items such as power poles, street lights and manholes within these projected limits across the roadway. With the removal of these projected limits under the new DPR, pipeline operators are no longer required to impose restrictions; however, there is a requirement by the NEB for a pipeline operator to complete a safety assessment. To protect the integrity and provide future maintenance access to the pipe, KML requests that utilities maintain an offset from the pipe.

With respect to the Township's maintenance activities on an approved constructed crossing, reference was made to section 11 of the NEB's DPR regulations under authorizations. The recent NEB/local government working group on the DPR addressed routine maintenance activities and the level of Company consent, which ranges from: 1) formal applications; 2) field issued consent; 3) One Call notification; and, 4) no permission required.

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KML recognizes that it can be difficult for parties seeking authorization to determine what is legally required and what part of KML's policies are best practice for damage prevention. KML is committed to working with the Township to ensure mutual agreement and understanding of KML's procedures and will be pleased to provide a timely response or clarification as necessary.

Sincerely,

A handwritten signature in blue ink that reads "Andrew Mark". The signature is written in a cursive, flowing style.

Andrew Mark
Program Manager, Damage Prevention and Public Awareness
Kinder Morgan Canada Limited

VIA ELECTRONIC SUBMISSION

July 14, 2017

National Energy Board
Suite 210, 517 Tenth Avenue S.W.
Calgary, Alberta T2R 0A8

To: Ms. Sheri Young, Secretary, National Energy Board

Dear Ms. Young:

**Re: Trans Mountain Pipeline ULC (“Trans Mountain”)
Trans Mountain Expansion Project (“Project” or “TMEP”)
Burnaby Terminal Variance Application (“Variance Application”)
Trans Mountain’s filings pursuant to Conditions 22 and 24 of Order XO-T260-010-2016 (“Order”)
NEB File: OF-Fac-Oil-T260-2013-03 02**

In relation to Trans Mountain’s Variance Application and compliance filings pursuant to Conditions 22 and 24 of the Order, Trans Mountain is in receipt of the National Energy Board’s (the “Board” or “NEB”) letter dated June 5, 2017 which describes a written process to consider the Variance Application and compliance filings pursuant to Conditions 22 and 24 of the Order.

Mr. Gregory J. McDade, counsel for the City of Burnaby (“Burnaby”) filed a letter of comment in relation to this matter on June 30, 2017. Trans Mountain has reviewed and assessed these comments, and pursuant to the Board’s letter direction, offers this reply.

1. City of Burnaby Letter of Comment

In its letter, Burnaby communicates its view that Trans Mountain has failed to discharge its obligation to consult Burnaby in advance of filing its Condition reports, that it provided no opportunity for independent technical review of Condition 22 and 24 reports of which Burnaby also maintains that through its subsequent review, contain significant errors and omissions. Burnaby also describes a number of concerns specific to the risk assessment supplied in the Condition 22 Report.

Burnaby’s position is as follows:

- Trans Mountain’s compliance with the NEB Report, including Conditions 14, 22 and 24 requires that it engage in good faith consultation with Burnaby in respect of the significant public interest issues engaged in those conditions;



- Trans Mountain's failure to engage Burnaby in consultation on the Condition 22 and 24 reports, and significant errors and omissions in those reports, render them inadequate for the purposes for which they were intended and non-compliance with the NEB Report; and
- Trans Mountain's Variance Application, which is premised on the results of the Condition 22 and 24 reports, is premature.

Burnaby requests that the Board:

- Return the Condition 22 and 24 reports to Trans Mountain and require that it consult with Burnaby to address Burnaby's outstanding concerns and significant matters of accident risk and public safety
- Postpone consideration of the Variance Application until after the Condition 22 and 24 reports are finalized in consultation with Burnaby.

2. Trans Mountain Reply –Consultation with the City of Burnaby

2.1 Project Engagement and Consultation History

Trans Mountain has an extensive history of engagement with the City of Burnaby dating back to when Trans Mountain commenced operations in 1953. Specific to the Project, Trans Mountain commenced engagement activities with Burnaby in May 2012.

Burnaby withdrew from discussions with respect to the Project more than two years ago on the basis that it preferred to deal with matters of concern through a "formal" process (i.e. through the NEB proceeding or the Courts). Since that time, Trans Mountain has continued to provide Burnaby with timely information regarding the Project, including opportunities to meet, and has sought Burnaby's feedback on various Project-related reports, as required by the Conditions of the Certificates and Orders for the Project. Consultation and engagement opportunities, including outreach to Burnaby administration are ongoing. Reports on consultation activities completed between May 2012 and June 30, 2015 were filed with the Board in the Project Application.¹

¹ Volume 3A: Public Consultation (Filing ID [A3S0R2](#), [A3S0R3](#), [A3S0R4](#), [A3S0R5](#)) and were updated in four Consultation Update filings (Consultation Update No. 1 and Errata (Filing ID [A3V3L8](#), [A3Z8E6](#)); Consultation Update No. 2 (Filing ID [A62087](#), [A62088](#)); Consultation Update No. 3 (Filing ID [A4H1W2](#), [A4H1W3](#), [A4H1W4](#), [A4H1W5](#), [A4H1W6](#), [A4H1W7](#), [A4H1W8](#)); Consultation Update No. 4 (Filing ID [A4S7G2](#), [A4S7G3](#), [A4S7G4](#), [A4S7G5](#), [A4S7G6](#), [A4S7G7](#)); A table summarizing consultation with Burnaby from May 2012 through June 2014 was also previously filed with the Board (Filing ID [A3Y7F5](#)).

2.2 Emergency Management Engagement

Trans Mountain's Emergency Management representatives have made multiple attempts to engage with the City of Burnaby Fire Department with respect to the Project. Since Project engagement activities commenced, Trans Mountain has extended invitations to Burnaby for all geographically relevant Project Emergency Management workshops, emergency response exercises and training, information sessions and one on one meetings. Burnaby has either declined, clearly stating that they would only discuss existing operational matters, or has not responded to these requests, with the exception of one recent event, described below.

In meetings with Burnaby to discuss ongoing operational matters of interest that took place on September 11, 2015 and March 31, 2016, Trans Mountain extended an invitation to meet to discuss the Project. At these meetings, the City of Burnaby Fire Department requested that Trans Mountain extend an invitation to engage in writing. Trans Mountain followed up in writing as requested, and Burnaby either declined to discuss the Project or did not respond to Trans Mountain's requests.²

As is the case with all geographically relevant emergency response exercises, Trans Mountain extended an invitation to Burnaby to participate in an emergency response exercise at Burnaby Terminal that took place on June 29, 2017. Trans Mountain was pleased that Burnaby chose to participate, noting that this was the first time that Burnaby has participated in approximately three years.

2.3 Project Conditions Engagement

While Trans Mountain makes every effort to engage with government stakeholders through the lifecycle of the Project, in order to identify and adequately address concerns regarding the Project's potential effects on governments, Trans Mountain notes that there are specific conditions to the Project Certificates and Orders that require certain consultation activities to take place. As related to emergency management, Condition 118 – Firefighting capacity at terminals and Condition 123 – Evacuation plans, both have consultation requirements.

On January 31, 2017 at a meeting with Burnaby related to operational matters, Trans Mountain provided an overview of planned firefighting capacity (Condition 118) and evacuation plans (Condition 123). Burnaby agreed that they would need to be engaged on both Conditions. Later, at a meeting on March 15, 2017 also related to operational matters, Trans Mountain reviewed key components of the Condition 118 and 123 documents and requested to engage with the City of Burnaby Fire Department on these two conditions. In response, Burnaby requested that all Project emergency management related topics be tabled at the established Technical Working Group Meetings.

² From September to December 2016, Trans Mountain made six (6) attempts to engage, as described in Trans Mountain's (Osler) letter to the Board dated March 24, 2017 (Filing ID [A82241](#)).

Unlike Conditions 118 and 123, Conditions 22 and 24 have no advance consultation requirement. Trans Mountain filed its Variance Application to vary the Order concurrent to compliance filings for Conditions 22 and 24. In January 2017 Trans Mountain held a public open house in Burnaby where information was shared about detailed design and construction plans. Burnaby was invited but did not attend. In consideration of external communications to Burnaby and to stakeholders and Aboriginal groups, Trans Mountain is mindful that the applied for variance serves to *reduce* the previously approved scope of construction by the Order by decreasing the size of five tanks by a total of 50,880 m³ (320,000 barrels) or 8%, and to *reduce* the risk by increasing the spacing between seven pairs of adjacent tanks (by an average of 61%) and eliminating three, three-tank shared secondary containment.

2.4 Technical Working Groups

Pursuant to Condition 14, Trans Mountain has formed a Technical Working Group (“TWG”) with Burnaby. Trans Mountain and Burnaby are currently working towards agreeing to Terms of Reference (“TOR”) for the TWGs.

The TOR are not final, but the current version of the draft TOR states:

*Trans Mountain will provide notice of compliance filings. Input into regulatory documents requiring consultation will continue to be sought during the specified consultation windows. **Inputs outside the consultation window is welcomed and will be considered for input to the extent practicable. The TMEP is open to reviewing Condition details with the City as requested.*** [Emphasis added]

At the July 5, 2017 TWG meeting between Burnaby and Trans Mountain, Burnaby confirmed that it was interested in forming an Emergency Management Sub Working Group (“SWG”) to discuss topics of mutual interest related to emergency management. A representative from Burnaby and a representative from Trans Mountain’s emergency management team were tasked with discussing how they work together as a SWG.

Trans Mountain is encouraged by Burnaby’s willingness to engage and participate in the TWG and SWG, and also by Burnaby’s recent participation in the emergency response exercise at Trans Mountain’s Burnaby Terminal. However, in relation to the Project, Trans Mountain was not afforded an opportunity to consult with Burnaby despite multiple attempts to engage. That being said, Trans Mountain is aware that the Variance Application serves to reduce the total tank capacity, and to modify secondary containment to increase the spacing between certain tanks, and to reduce the number of three-tank shared compartments, which as supported by the Condition 22 risk assessment, results in reduced overall risk. As the proposed scope within the Variance Application is arguably well within the parameters of the approved scope in the Order, and given the reduced risk of the proposed scope as shown in the Condition 22 risk assessment, in the absence of Burnaby’s feedback, Trans Mountain had no reason to believe that the

Variance Application and compliance filings for Conditions 22 and 24 would not be in the public interest. For these reasons, Trans Mountain disagrees with Burnaby's position that it failed to engage in good faith consultation with Burnaby.

3. Trans Mountain Reply – Risk Assessment and Secondary Containment Design

Trans Mountain retained Genesis Oil and Gas Consultants Ltd. ("Genesis") to undertake a risk assessment that included a quantification of the probabilities and potential consequences of events resulting from process and non-process hazards at the expanded Burnaby Terminal. Genesis used sophisticated computational methods to aggregate risk calculations into an overall assessment of risk for Burnaby Terminal, which was then assessed against the Major Industrial Accidents Council of Canada ("MIACC") criteria for risk acceptability. A risk-based approach was also used to demonstrate the adequacy of secondary containment. The risk assessment addressed spill, fire, explosion, and boil-over scenarios, initiated by earthquakes and other causes, and included domino (knock-on) effects, the effects of heat from fire, SO₂ and CO concentrations in smoke, and secondary containment overflow (concurrent with rainfall events). The Burnaby Terminal Expansion Risk Assessment Report was prepared by Genesis, and filed pursuant to Condition 22 and Condition 24, and is herein referred to as the "Genesis Report".

Trans Mountain notes that Burnaby questions the modelling assumptions and methods used by Genesis. However, Burnaby does not identify specific and recognized approaches that they believe are more appropriate. In a number of their comments Burnaby infers that risk acceptability should be based on the possible consequences of a specific event, without regard for the probability of such an event. The computational approach used by Genesis is able to aggregate the results of thousands of scenarios (including the impacts at thousands of discrete locations around the terminal) to establish an overall picture of risk.

Trans Mountain notes that Genesis does not include fire suppression capability in the risk assessment calculations. While Trans Mountain is of the view that proposed rim-seal area and full-surface fire suppression systems will be highly effective at extinguishing tank fires, thereby preventing escalation events (such as boil-over), there are no established extinguishment factors in the literature and Genesis has conservatively decided not to consider fire extinguishment. Nevertheless, the Genesis Report demonstrates that the overall individual risk is acceptable based on the MIACC criteria. Had fire-extinguishment factors been included, the individual risk values would have been lower at each location.

Trans Mountain notes that Burnaby's comments include a focus on the potential consequences of boil-over events. However, as discussed in the Risk Assessment Summary Report, Burnaby Terminal ("Summary Report") Section 8.0(b), boil-over events occur many hours after the start of a full-surface fire, assuming the fire is not extinguished. These time periods allow for strategic and tactical emergency response, including evacuation from the area that might be impacted by the fall-out or secondary events (such as forest fires). From a risk perspective, therefore, the

probability of exposure to boil-over effects is essentially zero, reducing the individual risk to essentially zero.

Trans Mountain notes that Burnaby provides a number of specific comments in relation to Condition 22 and 24 compliance filings. Burnaby's concern, and Trans Mountain's reply to each concern is provided below.

3.1 Condition 22 – Updated Terminal Risk Assessment

3.1.1 Boil-Over

Burnaby Concern:

Fundamentally flawed modelling – the report models a boil-over event as a pool fire, which is fundamentally wrong. Modelling boil-over on these parameters significantly understates the risks and consequences of such an event - both the diameter of the fireball as well as the duration of the event are grossly underrepresented. As a result, any characterization of the resulting thermal dose of such an event on an individual and/or the environment based on these parameters is wrong.

Trans Mountain Reply:

Boil-over is modeled following the recommendations found in the industry recognized and widely-accepted UK OGP 434-7. Furthermore, the time and duration of boil-over was calculated based on well-known published reference documents and dissertations. Please see references #13, 14, 15, 17 and 18 in the Genesis Report. Trans Mountain notes that Burnaby has not provided an alternative analytical approach to model boil-over.

Burnaby Concern:

Important secondary event risks not addressed – the risk assessment is premised on complete evacuation of the impacted area within the timeframe prior to boil-over. It does not address the fact that all fire suppression personnel would also need to be evacuated, leading to the significant risk of subsequent fire events resulting from the boil-over. There is clear precedent for such risk which is not addressed in the report.

Trans Mountain Reply:

The Genesis Report specifically addresses the potential impact of a boil-over on public safety. Evacuation is a means to protect the public from the adverse effects of a fire and potential boil-over. Extinguishing a fire is the best method of preventing a boil-over, therefore Trans Mountain would not suspend firefighting operations to evacuate responders due to the risk of a boil-over. As demonstrated in Section 7.3, Table 7-4 of the Genesis Report, the approximate time from the initiation of a fire to potential boil-over can be calculated based on the size of the tank and the

liquid level, providing responders with a known and significant period of time to undertake fire-fighting activities before they would need to be evacuated.

Burnaby Concern:

Failure to address precedent – the report states that, based on review of literature and prior boil-over incidents, that there is no evidence on which to qualify or quantify “the escalation in the form of a boil-over causing any fire in the near-by tanks or forest fires in the surrounding area”. The report fails to address important instances of boil-over events that have resulted in such secondary impacts, including the 1982 Tacoma, Venezuela event.

The report is entirely inadequate in characterizing a boil-over event and the potential harms, both direct and indirect, caused by such an event. The critical errors in this analysis completely undermine the risk assessment filed pursuant to Condition 22. Trans Mountain must be required to amend its risk assessment so that the risk and consequences of a boil-over event are properly characterized, including the risk of secondary fires and the impacts on fire suppression resulting from complete evacuation from the event area.

Trans Mountain Reply:

Boil-over is a significant event, which has been assessed in the Genesis Report. The referenced boil-over event in Tacoma, Venezuela led to loss of lives (specifically amongst a large crowd of power plant workers and local residents which gathered to watch the burning tank) but there is no evidence found to suggest that the boil-over caused any escalation of events in the near-by tanks.³

As discussed in Section 8.4 of the Genesis Report, there are no analytical methods available in the literature to quantify the risk of secondary fires. As discussed in Section 8.0(b) of the Summary Report, application of the risk equations at the time that a boil-over occurs (5 to 24 hours after the initiation of an uncontrolled full-surface fire) would yield extremely small individual risk probabilities, given that evacuation from the fallout areas would have taken place. The possibility of secondary fires will be given proper consideration in emergency management plans.

3.1.2 Vapour Cloud Explosion

Burnaby Concern:

Faulty dispersion modelling – the dispersion model used by Trans Mountain’s consultant relies on the presence of wind. Where conditions are calm, the formula breaks down and does not

³ The 1982 Tacoma, Venezuela event was discussed in Trans Mountain’s response to NEB IR No. 6.23 (Filing ID [A4R614](#)).

provide a sound basis for modelling dispersion. Accurate predictions for dispersion require state of the art models that are highly specific to the location in question.

Trans Mountain Reply:

Dispersion modeling is based on the most commonly used approach in the industry.⁴ The probability associated with the calm conditions is combined with the minimum speed that the dispersion modeling is valid for. Furthermore, according to the Environmental Protection Agency Risk Management Plan, the worst-case scenario is 1.5 m/s with F stability class.⁵ Based on the wind data provided by Trans Mountain, the calm conditions (no wind) account for very small probabilities.

The implied suggestion to utilize a computational fluid dynamics approach to dispersion modeling for such a large terminal would be inefficient and would not guarantee an accurate result.

Burnaby Concern:

Inaccurate ignition probability – The ignition probability curve used by Trans Mountain's consultant is based on the wrong fuel type (ie. diesel and fuel oil). Using the appropriate fuel scenario, the ignition probability could be between 5 and 50 times higher than what is shown on the Ignition Probability curve in the report.

The consequences of a vapour cloud explosion would be extreme given the short notice and evacuation period. Trans Mountain must be required to update its report so as to correctly model the key elements of vapour cloud dispersion and ignition probability. Among other things, this will require development of a custom model for dispersion. Until such time as this risk is correctly modelled, there is no adequate basis for assessing risk or consequences.

Trans Mountain Reply:

Based on Lees' Loss Prevention in the Process Industries (Reference #51 in the Genesis Report), the probability of explosion for a small size cloud is between 0.01 and 0.1.

In Section 7.3.8 of the Genesis Report, Scenario 13 found in the UK OGP 434-6.1 gives the ignition probability of 0.015. Including the probability of explosion will result in a probability of 0.0015 which is smaller than the probability of 0.0024 used in the study. Thus, the ignition probability used in the study implicitly accounts for the probability of explosion and is more conservative.

⁴ Center for Chemical Process Safety

⁵ US EPA Risk Management Program Guidance for Offsite Consequence Analysis, EPA 550-B-99-009, March 2009.

3.1.3 Knock-on Effects

Burnaby Concern:

Flawed knock-on risk assessment - The methodology utilized for the purposes of the knock-on analysis is flawed in important respects. There is no reference to heat impact modelling, which should have been accounted for as part of the risk assessment. The methodology does not account for the ignition potential of a boil-over event against hydrocarbon tank structures and within highly combustible forest areas.

Trans Mountain must be required to develop a more comprehensive analysis of the impacts of various factors on the risk of knock-on events, including tank structure materials, the local forested environment and heat exposure at higher elevations. This more comprehensive knock-on analysis must be properly integrated into the risk assessment.

Trans Mountain Reply:

Please refer to Sections 8.0 and 7.5.1 of the Genesis Report that describes knock-on effect (domino) and tank response assessment to fire. As presented in Section 8.1, boil-over due to pool fire event is one of the scenarios that was investigated in the study. Full 3-D advanced finite element analysis was performed to investigate the response of the tank to thermal exposure.

Section 6 of Trans Mountain's Emergency Response Plans identify multiple hazards including specific wildfire hazards and response to wildfires that have the potential to impact Trans Mountain facilities. There are a number of different response mechanisms that would be deployed depending on the threat and the type of incident. Supplemental wildfire response plans for the Burnaby terminal will be specifically addressed in compliance filings pursuant to Condition 125 (Emergency Response Plans for the Pipeline and for the Edmonton, Sumas and Burnaby Terminals).

Burnaby Concern:

Inadequate assessment of knock-on effects from secondary containment pool fire - As described in the report, secondary containment pool fires will presumptively spread to other tanks in the same secondary containment area. As a result of the proposed Terminal expansion design, discharges to tertiary containment will also in many cases pass through additional secondary containment units, resulting in spreading of the fire event to these units and increasing risk of knock-on effects and event escalation. Further, the design of the route to tertiary containment (ie. in close proximity to secondary containment) is such that, even where the fire event does not spread directly through additional secondary containment units, it is more likely to spread by way of heat impact.

Trans Mountain must be required to assess and account for risk of knock-on effects from spill fire events travelling directly between secondary containment areas and from heat impacts associated with spill fire travelling on the proposed tertiary containment route.

Trans Mountain Reply:

The secondary containment design for the expanded Burnaby Terminal, which includes shared containment concepts, is fully compliant with required regulations, codes and standards. However, after contemplation of multiple-tank failure scenarios, including extreme scenarios raised by the Board and Intervenors, Trans Mountain considered ways to maximize the effectiveness of the available containment. The approach selected was to involve adjacent containment via controlled flow paths. Trans Mountain believes that engaging adjacent secondary containment areas, where possible, in extreme release scenarios, is preferable to allowing excess released oil to flow directly to the tertiary containment area.

The Genesis Report reflects the design for Burnaby Terminal represented in the Variance Application. As such, the risks associated with the current secondary containment configuration and overflow paths have been assessed.

A preliminary cross section of the controlled overflow inlet structure can be seen in Section C of Figure 6-5 in Section 6.7 of the Genesis Report. The configuration of the inlet is such that fire cannot propagate to the adjacent secondary containment areas via the controlled overflow pathways.

3.1.4 Secondary and Tertiary Containment

Burnaby Concern:

Flawed secondary containment design - the containment design change contemplated in the report involves transfer of oil between secondary containment units once one reaches capacity as opposed to routing it directly to tertiary containment by way of an external dike system. As an example, controlled transfers of releases from T96-98 & T91-93 appear to be required to pass through T95-97. This design change in fact increases the potential for fire event spread to uninvolved tanks, therefore expanding potential event scope and significantly increasing overall risk.

Trans Mountain must be required to address the issue of spreading fire events as a result of proposed terminal design changes. The changes as currently proposed create additional risk

Trans Mountain Reply:

Please see Tran's Mountain reply to *Inadequate assessment of knock-on effects from secondary containment pool fire*, above.

Burnaby Concern:

Faulty secondary containment overflow drainage configuration - The high-capacity drainage channel and berm proposed for the south side of the terminal effectively blocks the primary entry or road access to the facility. In the case of a secondary containment overspill event, the transmission of oil in this channel creates the potential for surface fire at the main entry of the facility. This would significantly undermine the efforts of first responders, including fire suppression units. It would also put first responders at extreme risk in responding to such an event.

Trans Mountain must be required to amend its design to appropriately control and manage the travel of oil over its property in the case of overspill from secondary containment to reduce the level and complexity of fire risk, and to ensure that first responders are able to effectively access the terminal property for fire suppression and other emergency services without being put in a high risk situation.

Trans Mountain Reply:

The drainage channel will only be active in the event of certain extremely unlikely multiple tank failure scenarios. A large-diameter culvert has been provided to direct any flow in the ditch system under the main access road and allow for continued site access/egress. In a case where the main access road is blocked by fire or otherwise, emergency site access is available at the south and northwest corners of the site. Full firefighting capability and emergency access for the terminal will be addressed in one or more of the responses to the following NEB Conditions:

- Condition 118: Firefighting Capacity at Terminals
- Condition 123: Evacuation Plan
- Condition 125: Emergency Response Plans for the Pipeline and for the Edmonton, Sumas and Burnaby Terminals
- Condition 127: Terminal Fire Protection and Firefighting Systems

Burnaby Concern:

Unacceptable tertiary containment overflow risk - the assessment results for tertiary containment overflow highlight critical design flaws with the Burnaby Terminal expansion. In particular, the overflow risk frequency in the case of both 1/10 and 1/100 year rainfall events falls outside of the “acceptable” range based on the risk tolerability criteria used by Trans Mountain’s consultant. Notably, these standards were adopted from UK and EU sources because neither Canada nor the USA has published environment and safety risk criteria for oil overspill from terminal boundaries.

It is unacceptable that Trans Mountain has failed to reduce overflow risk to an acceptable standard based on the environmental risk criteria adopted by its consultant. The lack of

published risk criteria for the overspill risk in question necessitates a highly cautious approach to risk assessment using the most conservative standards available. Given the extreme nature of the environmental and public health implications of an overspill event, and the scope and duration of the project, the ALARP standards for risk tolerability are simply not appropriate. Trans Mountain must be required to consider and address further mitigation and risk reduction measures in accordance with the most conservative environment and safety risk tolerability standards.

Trans Mountain Reply:

In the Genesis Report, the overarching conclusions of risk acceptability, for events which result in released oil leaving the Burnaby Terminal property, are tied to the concept of the “tolerability of risk”. The tolerability is defined in Section 9.3 of the Genesis Report by using the UK Health & Safety Executive (“UKHSE”) “Safety & Environmental Standards for Fuel Storage Sites” the Environment Agency for England & Wales (“EAEW”) “Integrated pollution Prevention & Control”. These tolerability criteria were selected as there are no suitable North American criteria available in the literature. Although referenced in Condition 22, the MIACC acceptable land use criteria cannot be applied for off-site spill risk assessments. The MIACC criteria are designed for point source applications and require a determination of individual risk, for which there is no practical approach for oil travelling through off-site drainage courses.

The UKHSE and EAEW references combine notional health, safety, and environmental damage effects to define several consequence categories ranging from Category 1 (Minor) to Category 6 (Catastrophic). These are reproduced in Section 9.3 (Table 9-2) of the Genesis Report. Genesis has selected Category 5 (Major) to reasonably reflect the effects of an off-site release from Burnaby Terminal, although Trans Mountain notes that Category 6 (Catastrophic) identified in Section 9.3 (Table 9-1) has the same tolerability criteria as Category 5. Table 1, below, which has been extracted from Section 9.3 (Table 9-1), identifies the tolerability criteria for events resulting in Category 5 consequences:

Table 1: Tolerability Levels Based on Event (Consequence) Probabilities (Category 5 – Major)

Event Probability Range	Tolerability
Greater than 1×10^{-4}	Unacceptable
1×10^{-4} to 1×10^{-6}	Acceptable, if reduced to as low as reasonably practicable (ALARP)
Less than 1×10^{-6}	Acceptable

Trans Mountain and Genesis believe that the tolerability criteria used are both appropriate and conservative. According to the risk matrices of major companies (such as CPChem, SASOL and

BP), the “extremely improbable” frequency for catastrophic events is in the order of 10^{-4} to 10^{-5} . Also, per Lees’ Loss Prevention in the Process Industries (Reference #51), for a catastrophic consequence that entails a severe permanent or long-term environmental damage in a significant area or land, the acceptable frequency is 10^{-5} per year.

The aggregate probability of overflow (including 1 in 100-year rainfall events) is 8.23×10^{-6} . The aggregate probability of overflow (including 1 in 10-year rainfall events) is 9.11×10^{-6} . These probabilities are in the range of acceptability, following the UKHSE and EAEW criteria (where the probability has been reduced to as low as reasonably practicable) thus demonstrating the adequacy of the secondary and tertiary containment systems.

In addition, Trans Mountain notes that Section 7.3.8 (Figure 7-10) of the Genesis Report identifies the probability of ignition of released hydrocarbon as 2.4×10^{-3} . Therefore, the probability of an ignited off-site release can be calculated as 2.19×10^{-8} ($9.11 \times 10^{-6} \times 2.4 \times 10^{-3}$), which is a little more than one chance in 50 million. Trans Mountain is of the view that a probability this low is acceptable by any standard.

Furthermore, the risk assessment conservatively does not take into consideration the mitigative benefits of emergency management in reducing exposure to an off-site release.

3.1.5 Additional Risk Factors

Burnaby Concern:

Inappropriately narrow scope of risk assessment - the scope of the risk assessment conducted by Trans Mountain’s consultant is such that it fails to account for fire events triggered by external acts such as arson, terrorism and/or vandalism, standard failure rates of facility components, and/or forest fires. Accounting for these realistic contingencies would necessarily increase the risk of fires, explosions and/or boil-over events.

Trans Mountain must be required to update its risk frequency assessment with all possible risk contingencies and consult with Burnaby on potential risk components so that calculated risk frequency values are not artificially low.

Trans Mountain Reply:

Trans Mountain conducts detailed security risk assessments at all sites to assess the probability and consequence of potential third-party activity, and to implement measures to prevent such activities. Such activities include arson, terrorism, vandalism and civil disobedience.

The probabilities of tank fires used in the Genesis Report inherently include those caused by component failures. Trans Mountain is of the view that failures of components in other areas of the terminal such as manifold areas, even if they resulted in fires, would not create risks to the public. These areas are located far from the terminal fence lines and have relatively limited

amounts of fuel available to cause escalation, especially considering all of the valve isolation available within these facilities. Trans Mountain does not see the value of expanding the risk assessment to quantitatively include component failures.

Trans Mountain's response to events such a failure of facility components and forest fires, among other things, are addressed in Trans Mountain's Emergency Response Plans.

Burnaby Concern:

Faulty wind direction analysis - the wind direction analysis discloses variable wind directions and speeds at the Burmount location. This highlights the need for risk assessment that accounts for the possibility of high winds from all possible directions. Furthermore, any risk assessment must account for topographical and geographical differences between Burmount and the Burnaby Terminal that could render the results of the current wind speed data inaccurate. The impacts of unanticipated wind scenarios on the risk of spreading fire events, and associated harm to the lands and citizens of Burnaby, are extreme and must be properly understood in the report.

Trans Mountain must be required to update its risk assessment to consider and address all possible wind scenarios, and provide a comprehensive analysis of how these scenarios would impact fire events and escalation. Further, wind charts must be developed that are specific to Burnaby Terminal to avoid the issues of site-specificity noted above. The data relied on in developing these wind charts must be provided to Burnaby for review.

Trans Mountain Reply:

Appended to this response is a discussion of the validity of the wind rose selected for use in the risk assessment (Attachment 1). The Genesis methodology utilizes the wind data (direction and strength) in a probabilistic fashion in their risk calculations. In this way the effects of all statistically valid wind strengths and directions are included in the analysis of overall risk. The approach suggested by Burnaby (to consider and address the possibility of high winds from all directions) ignores the probabilities associated with wind events and the resulting determination of risk as a product of probability and consequence. The potential consequences of possible events will be addressed through emergency planning.

Burnaby Concern:

Inadequate seismic risk assessment - The report deals briefly with the issue of knock-on effects due to earthquake events. Among other things, it notes that "it is assumed that the primary event will affect all tanks at the site, i.e. if the PGA [peak ground acceleration] is large enough to cause failure of each tank, there will be a fire at every secondary containment area...". It is clear that an earthquake could have catastrophic consequences for the health and safety of nearby Burnaby residents, as well as surrounding public lands. The report does not provide sufficient analysis or assessment with respect to the increase in risk of fire events or knock-on effects associated with

an earthquake. This is completely unacceptable given the extreme implications of such an event, and the location of the project on a seismically active coastline.

Trans Mountain must be required to provide thorough risk assessment and analysis in respect of the impacts of an earthquake on the expanded Burnaby Terminal, and develop specific mitigations, including detailed action plans, in relation to such an event.

Trans Mountain Reply:

Section 8.3 of the Genesis Report provides a discussion of domino effects due to earthquakes. Section 13 (Figure 13-8) of the Genesis Report provides a discussion of thermal effects as a result of earthquakes. The statement from the Genesis Report that Burnaby has selected to make their point was intended to illustrate the analysis methodology. The scenario in the statement is associated with an infinitesimally low probability. Similarly to the consideration of wind effects, the Genesis analysis aggregates a range of earthquake events, with varying probabilities and consequences to establish an overall picture of seismic risk.

3.1.6 Flawed Risk Assessment Methodology

Burnaby Concern:

Unduly narrow risk assessment methodology - the risk assessment methodology is premised on individual risk, or the risk of fatal injury per year. This methodology is inadequate under the circumstances in that it:

- fails to account for risk of damage and/or loss other than loss of life, including damage to adjacent public lands and non-fatal harm to individuals;
- fails to account for the non-direct (consequential) impacts of fire events, including:
 - secondary forest fire events on Burnaby Mountain;
 - isolation of Burnaby Mountain residents from critical emergency response and health care;
 - long-term toxicology impacts; and
 - impacts to wetlands.

This risk assessment model fails to account for risk to important values in Burnaby beyond risk of human fatality, which is inconsistent with the requirements of Condition 22. Trans Mountain must be required to consult with Burnaby on important values that would be impacted, directly and indirectly, by pool fires, boil-overs, flash fires and vapour cloud explosions, as well as consequential events such as forest fires. Trans Mountain must modify its risk assessment methodology and risk assessment report to account for risk of harm to these values and develop appropriate mitigations.

Trans Mountain Reply:

The purpose of the risk assessment is to demonstrate whether or not the expansion is acceptable using the MIACC individual risk criteria (and the proposed UK criteria for overflow scenarios). Trans Mountain is of the view that the level of detail and analysis in the risk assessment is very extensive and unprecedented for a pipeline terminal. The potential consequences of a wide variety of events will be addressed through emergency planning.

3.1.7 Additional Concerns

Burnaby Concern:

Missing risk reduction methodologies - there are a number of key practical risk frequency reduction methodologies that have not been considered in the risk assessment and are not appropriately accounted for in the ALARP (As Low as Reasonably Practicable) analysis. These practical methodologies include the conversion of all tanks to internal floating roof design; automatic full surface tank fire suppression systems for all tanks; and automatic Containment Bay Suppression Systems.

Trans Mountain must be required to consider all practical risk reduction methodologies as part of the ALARP analysis, including, but not limited to, those set out above.

Trans Mountain Reply:

In Section 3.0 (Design Variances) and 4.0 (Risk Reduction by Design) of the Summary Report, Trans Mountain has identified that significant enhancements have been made to the design, all intended to reduce the risk associated with both fire and spill events. Trans Mountain has not identified any additional changes that can be made to the design without materially affecting the operational viability of the post-expansion Trans Mountain system. The number of tanks, size combinations, and aggregate capacity are required to fulfill the contractual throughput requirements and service levels (including commodity segregation). Trans Mountain has optimized the physical arrangement of the tanks in the most logical, efficient, and practical way. In response to NEB IR No. 3.093(b) Trans Mountain has described a full suite of preventative and mitigative controls designed to reduce the risk of fires and spills.⁶ A number of the controls exceed those required by regulation. Trans Mountain is of the view that there are no additional controls which are reasonably practicable to implement. As such, Trans Mountain is of the view that the risks have been reduced to as low as reasonably practicable (ALARP).

As instructed by the Board, Trans Mountain is required to consider risk mitigation measures that are “reasonably practicable”, not all “possible” or “practicable” measures. Trans Mountain is of

⁶ Filing ID [A4H1V2](#)

the view that the risk assessment results, which establish acceptable risk levels, do not provide a compelling rationale to add numerous additional measures.

Burnaby Concern:

Misapplication of the MIACC Guidelines - the Condition Report classifies the Simon Fraser University areas as “institutional” for the purposes of acceptable/tolerable individual risk, failing to consider or address the fact that this area also includes a high density residential area (UniverCity).

The risk assessment must be revised to assess risk on the basis of the actual uses of the areas in question, including the Simon Fraser University areas.

Trans Mountain Reply:

The UniverCity area is addressed in the second paragraph of Section 6.0 of the Summary Report. The individual risk criterion for “institutions” and the “high-density residential” is the same.

Burnaby Concern:

Faulty risk assessment modelling - the report contains fundamental flaws in its approach to risk assessment modelling, including its use of the Monte Carlo simulation, which is not an appropriate simulation or computational model.

Trans Mountain Reply:

Monte Carlo simulation is the standard approach for all simulation modelling. The risk assessment is based on the most widely-accepted approaches in the petrochemical industry and employs advanced levels of analyses.

The risk assessment approach employed has been presented in several conferences including the 66th Canadian Chemical Engineering Conference in 2016. Trans Mountain notes that Burnaby has failed to identify what alternative approach they believe is more appropriate.

3.2 Condition 24 – Secondary Containment

Burnaby Concern:

Inadequate access/approach to tanks – the proposed terminal road access does not provide for safe approach to within 60 meters of all tanks as is required in emergency event scenarios, based on elevations and wind data provided in the risk assessment.

Trans Mountain must be required to develop a roadway system within the terminal, in consultation with Burnaby's emergency response departments, that allows for safe approach to within 60 meters of storage tanks in emergency situations.

Trans Mountain Reply:

Safe approach road access will be constructed within 60m of storage tanks in accordance with the *British Columbia Fire Code* Clause 4.3.2.4.

Burnaby Concern:

Further inadequacies with secondary containment plan – the secondary containment design is inadequate and/or based on faulty premises/calculations, including that:

- the report significantly underrepresents water generated from potential firefighting activities for the purposes of assessing the ability of secondary and tertiary containment to accommodate multiple-tank ruptures;

Trans Mountain Reply:

The individual secondary containment area calculations include adequate capacity for fire-fighting water in conjunction with single tank failure scenarios (full tank) in each area. For multiple-tank failures which lead to potential overflow scenarios, the risk assessment includes a probabilistic approach to incorporating fire-fighting water.

For scenarios which include fires, volume of water generated from potential firefighting activities in accordance with Clause 4.3.7.3 of the *British Columbia Fire Code* and Section 6.13 of the Genesis Report is included in the analysis.

Burnaby Concern:

- the report does not adequately account for potential standing water present in secondary containment and dike features at the time of a spill; and

Trans Mountain Reply:

The individual secondary containment area calculations include adequate capacity for standing water from a 1 in 100-year 24 hour rainfall event in conjunction with single tank failure scenarios (full tank) in each area. For multiple-tank failures which lead to potential overflow scenarios, the risk assessment includes a probabilistic approach to incorporating rainfall events. As identified in Section 7.6 (Figure 7-32) of the Genesis Report, a broad range of scenarios resulting in tank leaks and failures (including multiple tank leaks and failures), combined with rainfall events, are considered in the probabilistic assessment of the adequacy of secondary and tertiary containment.

Rainfall events, when they coincide with the assessed scenarios are assumed to result in the accumulation of water in the secondary containment areas for the entire 24-hour periods prior to the scenarios occurring. The probabilities of the rainfall events coinciding with the assessed scenarios are associated with their return periods. Although Condition 24 only requires inclusion of 1 in 100-year rainfall events, Genesis also included 1 in 10-year rainfall events. These have slightly lower total rainfall amounts but a 10-fold greater probability of occurrence and thus a slightly larger influence on the probabilities of overflow.

Burnaby Concern:

- Additional design components and other mitigations, which would reduce the frequency of overflow events, are available and within the scope of what is reasonably practicable;

Trans Mountain Reply:

Secondary containment design at Burnaby Terminal has been developed in accordance with applicable regulations, codes and standards as identified in the TMEP s.52 Application, responses to information requests, the Variance Application and the Condition reports. Trans Mountain notes that Burnaby has not provided clarity on what the additional “reasonably practicable” design components and other mitigations are to reduce the frequency of overflow events. Given that the probability of overflow events is infinitesimally low and meets a recognized standard of tolerability, Burnaby has not provided a compelling rationale for why such additional measures are necessary.

As demonstrated through Trans Mountain’s reply to Burnaby’s concerns, Trans Mountain is of the view that there are no significant errors or omissions in the Condition 22 and 24 compliance filings, and that Trans Mountain’s Variance Application, which incorporates the Condition 22 and 24 reports, is complete, addresses the requirements of the NEB Filing Manual, and should be considered by the Board as submitted.

4. Conclusion

Trans Mountain endeavors to proactively engage with stakeholders, Aboriginal groups and Appropriate Government Authorities whose interests may be impacted by Trans Mountain activities. Trans Mountain has sought to and continues to communicate using a variety of outreach avenues and opportunities. In the case of the Project, Trans Mountain was not afforded the opportunity to consult with Burnaby, despite multiple attempts to engage.

Trans Mountain believes the applied for design change demonstrates incorporation of the comprehensive risk assessment results in the modified (reduced storage volume) design of Burnaby Terminal. In Trans Mountain’s reply to Burnaby’s concerns in Section 3 of this letter,



Trans Mountain does not agree that there are significant errors or omissions in the Genesis or Summary Reports as demonstrated in its reply.

As such, Trans Mountain is of the view Condition 22 and 24 compliance filings support a modified (reduced storage volume) design which is preferable to that authorized by the Order, the Condition 22 and 24 compliance filings and the Applications are robust and complete and not in any way premature. Accordingly, Trans Mountain respectfully requests that the Board's consideration of these submissions proceed without delay to facilitate a planned construction start date of September 1, 2017.

Should you have any questions or wish to discuss this matter further, please contact the undersigned at regulatory@transmountain.com or (403) 514-6400.

Yours truly,

Original signed by

Scott Stoness

Vice President, Regulatory and Finance
Kinder Morgan Canada Inc.

Enclosure: Attachment 1 - Discussion of the validity of the wind rose selected for use in the risk assessment

cc: Mr. Gregory J. McDade, Q.C., Ratcliff & Company LLP

May 30, 2017

City of Burnaby
Engineering Department
4949 Canada Way
Burnaby, BC
V5G 1M2

Attention: Dipak Dattani
Deputy Director Engineering

Dear Mr. Dattani:

Re: Trans Mountain Expansion Project (TMEP)
Technical Working Group (TWG) Terms of Reference

We are responding to your letter of May 9, 2017, following up on our last TMEP TWG meeting of May 3, 2017.

First, thank you for your commitment to work in good faith towards the necessary requirements and work we must do on multiple matters in relation to TMEP. We appreciate and understand there are important interests we must cooperate on, and expend resources on, in order to ensure TMEP is complying with necessary laws and regulations.

In relation to what you refer to as “permitting requirements,” we too agree that the National Energy Board (NEB) direction set out in your letter is indeed the approach a federal undertaking such as TMEP must abide by:

Generally speaking, companies are expected to obtain any federal, provincial or municipal permits or authorizations required by those jurisdictions, *and Trans Mountain has committed to comply with, or seek variance from, all municipal bylaws*, including those involving noise.



We believe we are largely aligned with the City of Burnaby's approach. That is, we will submit PPAs to the City which demonstrate that we have complied with Burnaby's bylaws. Only in the unexpected case of a conflict between federal law or the need to apply for a variance as directed by the NEB, would clarification be required. From our review of the City's legal requirements, we anticipate we will be in near or near full compliance with these requirements. We also remain committed to working with the City to identify and resolve any non-compliance issues and necessary mitigations via the TWG.

TMEP has submitted the following PPA packages to Burnaby:

- (1) Burnaby Terminal Plant Modifications PPA;
- (2) Westridge Terminal Plant Modifications PPA;
- (3) Westridge Terminal PPA;
- (4) Burnaby Terminal PPA;
- (5) Kask Brothers PPA.

The City has returned those packages, requesting that we first clarify our position on whether TMEP will be meeting Burnaby's bylaws. This letter clarifies we will do so as required by the NEB directive. The City has also requested that we clarify whether we will be paying the fees associated with the processing of the PPAs. We can clarify that we will pay fees given the commitment as set out in your letter to work in good faith towards the necessary requirements.

Attached to this letter please find the Burnaby Terminal Plant Modifications PPA and the Kask Brothers PPA with applicable fee. We provide this now as these are the first PPAs to proceed and we require they be addressed as soon as possible. We will re-submit the other PPAs in due course.

Our next pre-TWG meeting is scheduled as mutually agreed for June 7, 2017. We look forward to finalizing the Terms of Reference and continuing to work together.

Yours truly,

TRANSMOUNTAIN EXPANSION PROJECT

Randy Brake
Director, Lower Mainland
Trans Mountain Expansion Project

cc: Lexa Hobenshield
Peter Forrester

Attachments

September 20, 2017

Mike Boss
Sr. Engineer, Liquid Waste Services
Metro Vancouver
4330 Kingsway
Burnaby, BC V5H 4G8

Dear Mr. Boss:

**RE: Vancouver Fraser Port Authority Project Permit No. 15-322
Trans Mountain Westridge Marine Terminal Upgrade and Expansion Project**

Trans Mountain Pipeline ULC ("Trans Mountain") writes to inform you that the Vancouver Fraser Port Authority (VFPA) has approved the above referenced permit subject to 57 conditions.

Pursuant to permit condition No. 20, Trans Mountain would advise that the construction of the new marine terminal in Burrard Inlet is currently planned to start in September 2017.

As a first step in its project plan, Trans Mountain will install a marine construction safety boom to surround the worksite during construction activities. Trans Mountain recognizes that the existing Greater Vancouver Sewage and Drainage (GVRD) district sewage system as generally shown on License Plan No. 2004-111 dated October 12, 2004 and Lease Plan No. 2017-123 dated July 31, 2017 is located within the confines of the marine construction safety boom. Condition no. 39 of the above referenced permit requires Trans Mountain to establish and define a marine restricted area around the sewage system. Trans Mountain shall not permit any anchoring or operations that would cause damage to this infrastructure within the restricted area.

Accordingly, Trans Mountain will identify the GVRD sewage system with signage to ensure protection of the system from any construction activities. During construction, for activities expected to cause potential sediment disturbance, a silt curtain will be installed to isolate the area of disturbance and reduce dispersion of total suspended solids into Burrard Inlet. Access to the system will be provided to Metro Vancouver as required. To arrange access, please contact Lexa Hobenshield at 604-809-9869.



TRANSMOUNTAIN

Trans Mountain Expansion Project

If Metro Vancouver has any concerns with the Trans Mountain Expansion Project construction activities in Burrard Inlet in respect of its sewage system, Trans Mountain is prepared to meet with the staff through the Technical Working Group meetings.

Sincerely,

Randy Brake

Director, Lower Mainland

Trans Mountain Expansion Project

Tel: 403-514-6515

Email: Randy_Brake@transmountain.com

September 20, 2017

Lou Pelletier
Planning & Building
City of Burnaby
4949 Canada Way
Burnaby, BC V5G 1M2

Dear Mr. Pelletier,

**RE: Vancouver Fraser Port Authority Project Permit No. 15-322
Trans Mountain Westridge Marine Terminal Upgrade and Expansion Project**

Trans Mountain Pipeline ULC ("Trans Mountain") writes to inform you that the Vancouver Fraser Port Authority (VFPA) has approved the above referenced permit subject to 57 conditions.

Pursuant to permit condition no. 19, Trans Mountain would advise that the construction of the new marine terminal in Burrard Inlet is currently planned to start in September 2017.

Trans Mountain recognizes that a segment of the existing City of Burnaby underground sewer pipeline licensed under Agreement no. BBY093-00008F-002 with the VFPA is located within the confines of the construction area. Accordingly, Trans Mountain's Engineering team has located the underground sewer infrastructure and ensured that the project design and construction activities do not compromise the integrity of and access to the sewer facilities. In addition, prior to the commencement of construction around the sewer system, Trans Mountain will delineate the underground sewer line with paint and take appropriate damage prevention measures to ensure protection of the system. Trans Mountain will notify the City of Burnaby Engineering Department prior to excavating around the City's infrastructure.

Sincerely,



Randy Brake
Director, Lower Mainland
Trans Mountain Expansion Project
Tel: 403-514-6515
Email: Randy_Brake@transmountain.com