

NATIONAL ENERGY BOARD

IN THE MATTER OF the *National Energy Board Act*, RSC 1985 c N-7, as amended,
and the Regulations made thereunder;

AND IN THE MATTER OF the *Canadian Environmental Assessment Act*, 2012, SC c
19, s. 52, as amended, and the Regulations made thereunder;

AND IN THE MATTER OF an application by Trans Mountain Pipeline ULC as
General Partner of Trans Mountain L.P. for a Certificate of Public Convenience and
Necessity and other related approvals pursuant to Part III of the *National Energy Board
Act*.

JOINT FINAL ARGUMENT OF:

**CITY OF ABBOTSFORD, FRASER VALLEY REGIONAL DISTRICT,
TOWNSHIP OF LANGLEY, FRASER-FORT GEORGE REGIONAL DISTRICT
AND VILLAGE OF VALEMOUNT**

City of Abbotsford

Fraser Valley Regional District

Township of Langley

Village of Valemount & Regional District of Fraser-Fort George

collectively “**Local Governments**”

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I. Overview

A. Opening remarks

1. The City of Abbotsford, Fraser Valley Regional District, Township of Langley, Village of Valemount and Regional District of Fraser-Fort George (the “Local Governments”) make the following joint submissions with respect to the Trans Mountain Pipeline ULC (referred to as “Trans Mountain”, the “applicant” and the “proponent” herein) application for a Certificate of Public Convenience and Necessity and other related approvals pursuant to Part III of the *National Energy Board Act*.¹ The Local Governments’ comments on the National Energy Board (“NEB” or “Board”) draft conditions are addressed in conjunction with the submissions below.
2. The Trans Mountain Expansion Project (TMEP) will cross through dense residential areas, over and around existing local government infrastructure such as buried utilities, under municipal streets and highways, parks and recreation sites, agricultural areas, fish bearing rivers and streams including the Sumas Canal, Salmon River, Swift Creek and other important tributaries that flow into the Fraser River, sensitive riparian zones and across vulnerable drinking water aquifers.
3. The construction and operation of the pipeline will impact all of the Local Governments. Some of the impacts will be felt in common by the Local Governments, and some will be unique to each. These Local Governments do not take a position in these proceedings on the question the Board must determine as to whether the TMEP is necessary to the public interest. The Local Governments do, however, submit that it would not be in the public interest to allow the TMEP to be developed and operated at the expense of the local communities that would host the pipeline. The Local Governments submit that in order for the TMEP to be found to be in the public interest, conditions must be attached to any approval that would seek to ensure that no additional cost or burden or unnecessary risk is placed upon the Local Governments by the TMEP.
4. The Township of Langley makes the additional submission that, before the Board can properly find that the TMEP is in the public interest, the NEB must determine based on

¹ RSC 1985 c. N-7 (the “National Energy Board Act”).

full evidence and analysis that this proposed route is the best one among considered alternatives (which is not possible based upon the evidence before the Board to date). Trans Mountain has chosen to pursue approval for the TMEP through the most densely populated corridor it could have chosen between Alberta and the Pacific Ocean. The Township of Langley submits that neither the proponent's application nor the NEB process has provided an appropriate or adequate assessment of alternative routes—including routes that would not place significant burden and risk on the most densely populated municipalities in British Columbia.

5. These submissions set out the impacts the Local Governments have identified from the TMEP that will be residual even if and after the mitigation measures the applicant has described are in place. The Local Governments propose conditions to be attached to any approval of the project which would seek to better identify, mitigate or compensate for these residual impacts.
6. The principle underlying the Local Governments' submission is that any assessment or approval of the proposed project must be based on a full understanding of the costs of the project, and must not displace or avoid assessment of certain costs by the presumptive displacement of those costs onto the local communities that host the pipeline and its related facilities.

B. Brief Overview of Local Governments

1. City of Abbotsford

7. The City of Abbotsford has a population of 139,000 with a projected population of 200,000 by 2035. It is the largest municipality by area (370 km²) in the Lower Mainland. Abbotsford is located within the central Fraser Valley and contains extensive agricultural areas.
8. The footprint of the Trans Mountain Expansion Project (TMEP) within the city limits of Abbotsford includes:
 - a. construction of 30 kilometres of pipeline within the existing pipeline right of way,
 - b. adding a 27,800 m³ (6.1 million i.g.) storage tank on Sumas Mountain, and

- c. upgrading the pumping facilities at 3434 McDermott Road.²
9. Abbotsford has a number of key concerns about the TMEP, including, but not limited to the following:
- a. Trans Mountain's emergency response and planning:
 - i. local emergency response capabilities based on historical failures to respond adequately to spills in Abbotsford;
 - ii. lack of emergency response integration with local first responders;
 - iii. cost impacts of the strain placed on local emergency responders during construction of the pipeline and pipeline-related emergencies;
 - iv. equipment content of and access to OSCAR station in Abbotsford; and
 - v. location, placement and number of remote mainline block valves, enabling shut off of portions of the pipeline to reduce the impact of a spill.
 - b. The TMEP's disruption to City infrastructure and road crossings, including:
 - i. delay and expense to the City associated with the pipeline crossing of municipal infrastructure; and
 - ii. 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.
 - c. Trans Mountain's overall consultation methods and failure to provide pertinent details it has within its knowledge in order to enable the City to understand the impacts and provide feedback to Trans Mountain and the NEB, particularly with respect to:
 - i. Sumas River and Sumas Lake Canal crossings;
 - ii. Sandy Hill neighbourhood feasibility of trenchless construction³; and

² Trans Mountain Application, Volume 3A, Appendix D – 1 of 9, Exhibit [A3S0S7](#) at p. 21.

³ Note that since the close of intervenors' evidence in this proceeding Trans Mountain has recently advised that it will pursue trenchless construction in this neighbourhood: "Trans Mountain is pleased to confirm that conditions are favourable for a trenchless pipe installation, specifically Direct Pipe methodology through [Sandy Hill]. TMEP is committed to the preference of a trenchless pipe installation in [the Sandy Hill] area and will continue detailed design efforts on this basis": Trans Mountain Letter to Mr. Phil Blaker, City of Abbotsford, September 10, 2015. In accordance with the intent of draft condition # 2, this commitment should be reflected in any conditional approval of the Project.

iii. Valve locations.

d. The City is also concerned that an appropriate communication plan must be in place during construction to ensure that the City does not shoulder the burden of fielding questions and complaints from the public about the TMEP.

2. Fraser Valley Regional District

10. The Fraser Valley Regional District (FVRD) consists of six municipalities (including the City of Abbotsford) and eight electoral districts. FVRD is approximately 14,000 square kilometres in size. Regional districts are modeled as a federation composed of municipalities and electoral areas, each of which has representation on the regional board.
11. The TMEP will add 146 kilometres of new pipeline in the FVRD, crossing through the City of Abbotsford, City of Chilliwack, District of Hope, and Electoral Areas B, D and H.
12. FVRD's key concerns about the TMEP include:
 - a. Impacts to FVRD's air quality as a result of the construction of the TMEP and rise in air pollution from increased marine tanker traffic;
 - b. Trans Mountain's emergency response and planning:
 - i. local emergency response capabilities in remote areas of FVRD;
 - ii. lack of emergency response integration with local first responders; and
 - iii. cost impacts of the strain placed on local emergency responders during construction of the pipeline and pipeline-related emergencies;
 - c. Lack of understanding of the risk of geotechnical hazards, particularly landslides in the Popkum Bridal Falls area, and the impact these hazards may have on the pipeline's integrity and emergency response measures;

- d. Trans Mountain's monitoring approach to measure impacts, for example, the insufficient identification of baseline indicators to measure the socio-economic impacts to FVRD as a result of the TMEP;
- e. Trans Mountain's overall consultation methods to date and its failure to communicate with or incorporate FVRD's feedback on important matters that will impact the FVRD, such as routing changes near Bridal Veil Falls provincial park, and the decision to appoint two different project contractors within FVRD's jurisdiction with which FVRD must now coordinate.

13. Many of the concerns expressed herein are shared by other local governments not directly involved as intervenors in this hearing, for example, see the City of Chilliwack's Letter of Comment.⁴

3. Township of Langley

14. The Township of Langley is located 45 kilometres east of the City of Vancouver and has an area of 316 km². The Township is bordered by the Fraser River to the north, the United States border to the south, the cities of Surrey and Langley to the west and the City of Abbotsford to the east. It has a population of 113,000.
15. The TMEP will require construction of 17 kilometres of new pipeline in Langley.⁵
16. Langley's key concerns about the TMEP include:
- a. Protection of Langley's sensitive aquifers and drinking water supply during construction, operations, and pipeline emergencies, including:
 - i. Insufficient baseline data on the groundwater, well water and aquifer systems in Langley;
 - ii. Monitoring techniques to ensure that impacts from Trans Mountain's activities to Langley's water systems are measured and accounted for; and
 - iii. Pipeline integrity and emergency response measures to protect Langley's aquifers in the event of a spill;

⁴ City of Chilliwack Letter of Comment, Exhibit [A4S4J9](#).

⁵ Trans Mountain Application, Volume 3A, Appendix A - 6 of 7, Exhibit [A3S0S1](#) at p. 4.

- b. The TMEP's disruption to City infrastructure and road crossings, including:
 - i. Expense and delay associated with Trans Mountain's crossing agreements;
 - ii. Cost recovery for impacts to the Township's existing and future infrastructure that intersects with the pipeline in the Township's road right of ways;
 - iii. Cost impact to Langley for responding to Trans Mountain's infrastructure or emergency-related service needs;
- c. Restoration and protection of Langley's wetlands and riparian areas during construction and operations of the TMEP.

4. Village of Valemount & Regional District of Fraser-Fort George

- 17. The Village of Valemount is situated between the Rocky, Monashee and Cariboo mountains in the North Thompson Valley region of eastern BC. The Village is near Mount Robson Provincial Park and surrounded by numerous outdoor recreation and wilderness areas. The population of Valemount is approximately 1,065 residents, and its economy is based on logging and tourism.⁶
- 18. The Regional District of Fraser-Fort George (RDFFG) consists of the City of Prince George, District of Mackenzie, Villages of McBride and Valemount, and seven electoral areas. It contains an area of over 51,000 km².
- 19. The TMEP will add approximately 60 kilometres of pipeline within the regional district. The pipeline will cross just west of the Village of Valemount boundaries and through Electoral Area H in the RDFFG.
- 20. Valemount and RDFFG's key concerns about the TMEP include:
 - a. Impact of influx of 500-800 temporary workers in the Village, particularly with respect to the management of solid waste due to the Village's Solid Waste Transfer Station being at maximum capacity, and impact on local housing costs;
 - b. Location, placement and number of remote mainline block valves, enabling shut off of portions of the pipeline to reduce the impact of a spill;

⁶ Valemount & RDFFG Information Request No. 1, Exhibit [A3W7L6](#) at p. 4.

- c. Impact on well water quality and lack of sufficient monitoring criteria to enable RDFFG and Valemount to assess these impacts from the TMEP.⁷

C. Local Governments' Position

- 21. The Local Governments have, based on the evidence available at this point and in the absence of cross-examination, identified three areas of priority concerns in response to Trans Mountain's evidence:
 - i. Socio-economic Mitigation, Compensation and Monitoring
 - ii. Environmental Mitigation and Monitoring
 - iii. Emergency Management and Response
- 22. These three areas of concern are directly relevant to the Board's List of Issues #4, 6, 7, 8, 10, 11 and 12.
- 23. Each Local Government has concerns about the TMEP that are specific to the particular impacts the TMEP would have upon each community. However, the Local Governments share the common position that if the TMEP is approved, the conditions that attach to any Certificate of Public Convenience and Necessity (CPCN) under the *National Energy Board Act* and to any Decision Statement under the *Canadian Environmental Assessment Act, 2012*⁸, should include enforceable requirements that Trans Mountain must:
 - a. fulfill the commitments it has made to the Local Governments to date;
 - b. mitigate the risks and impacts of the project to the fullest extent possible;
 - c. compensate local governments for costs borne by local governments that are caused by the TMEP.
- 24. As will be set out below:
 - a. The applicant has not fully recorded for the Board all commitments it has made to the Local Governments to date;

⁷ These concerns link directly to the Board's [List of Issues](#) No. 4, 7, 8, 10 and 11.

⁸ SC 2012 c. 19 (the "Canadian Environmental Assessment Act, 2012").

- b. The applicant has failed to identify important risks and impacts to local governments;
 - c. The applicant has failed to identify or sufficiently describe measures to adequately mitigate risks and impacts that would be borne by local governments;
 - d. Certain draft conditions circulated by the Board for intervenor comment do not, as drafted, ensure that measures to protect the public interest are in place and are specifically enforceable.
25. The Board has the jurisdiction and statutory authority to recommend conditions that could address each of these issues. Pursuant to s. 52(1)(b) of the *National Energy Board Act*, the Board has broad jurisdiction to recommend conditions that it considers necessary or desirable in the public interest:
- 52.** (1) If the Board is of the opinion that an application for a certificate in respect of a pipeline is complete, it shall prepare and submit to the Minister, and make public, a report setting out
- (a) its recommendation as to whether or not the certificate should be issued for all or any portion of the pipeline, taking into account whether the pipeline is and will be required by the present and future public convenience and necessity, and the reasons for that recommendation; and
 - (b) regardless of the recommendation that the Board makes, all the terms and conditions that it considers necessary or desirable in the public interest to which the certificate will be subject if the Governor in Council were to direct the Board to issue the certificate, including terms or conditions relating to when the certificate or portions or provisions of it are to come into force.
26. Similarly, the NEB has broad jurisdiction under the *Canadian Environmental Assessment Act, 2012* to establish conditions with which the proponent must comply (ss. 15, 53).
27. Municipalities and regional districts represent the public interest at the most immediate and local levels. They variously oversee, administer and are responsible for the infrastructure essential to economically healthy communities, the parks and greenspaces that are essential to human and environmental health, and the emergency response

systems necessary for rapid and effective harm prevention and mitigation. These responsibilities are met and managed through limited revenue sources.⁹

28. The Local Governments submit that as a general principle in determining the appropriate conditions to be attached to any approval of the proposed Project, no increased financial burden should be put on any local government due to the construction or operation of the TMEP. Local communities should not bear costs that would not arise but for the construction and operation of the pipeline.
29. The principled foundation of this position is recognized already in part by the Board's draft condition #17, which would require Trans Mountain to file a socio-economic effects monitoring plan. The condition recognizes that the project is likely to cause adverse socio-economic effects on local communities and service providers. However, this condition is not sufficient to effectively enforce the principle. Where conditions can be ascertained *now* that would *prevent* socio-economic impacts such as increased pipeline-related costs on local communities, those conditions should be attached to any approval. Further, as submitted in detail below, where impacts cannot be mitigated, a cost-recovery mechanism for local governments must be made a condition of approval.
30. The Local Governments will make submissions below on appropriate conditions that would enforce this principle. This includes conditions that will require Trans Mountain to take steps in the construction and operation of its proposed pipeline to avoid costs and damages to local governments. Where impacts cannot be avoided, the conditions should ensure a practical and enforceable mechanism to assess and ensure compensation to local governments for pipeline-related costs incurred.
31. The Local Governments also submit that "Community Benefits" programs (draft Condition #138)—which are voluntary and not responsive or linked to impacts—and project-related employment (see Trans Mountain's Final Written Argument s. 9.14.2 "Local Benefits") do not address the increased costs to local governments. Further, as set out in more detail below and in Appendix C, the taxes that would be paid by Trans

⁹ *Community Charter*, S.B.C. 2003, c. 26 at s. 192 ("Community Charter").

Mountain to local governments through which its pipeline passes do not provide compensation to local governments for the expenses the pipeline and facilities induce.

32. Local governments also represent the public interest through regulatory oversight over land use and land use planning. This is essential to creating coherent and comprehensive systems of land use both within dense residential and urban areas, as well as remote rural and agricultural areas. The Local Governments submit that, so as not to undermine effective local regulation, the TMEP must adhere to local government bylaws and standards wherever possible. This will be addressed in specific detail below.
33. Trans Mountain has committed in its Application to several general mitigation measures in response to anticipated impacts relating to the construction and operation of the TMEP. However, the mitigation measures listed in the Application to the Board do not provide the level of detail required to determine how Trans Mountain will address the specific concerns of local governments. Several mitigation measures proposed by Trans Mountain will rely upon monitoring, management or mitigation plans which have yet to be developed. For example:
 - a. “KMC/Trans Mountain commits to continued engagement with the City of Abbotsford or enhancements to the EMP [Emergency Management Plan].”¹⁰
 - b. “KMC will file with the NEB the revised ERP [Emergency Response Plan] for the pipeline as part of the approval conditions for the Project. The plan will demonstrate KMC’s ability to prepare for, respond to, recover from, and mitigate the potential effects of emergencies of any type related to the TMPL system.”¹¹
 - c. “Response in the event of multiple emergencies occurring simultaneously or in close temporal proximity along the pipeline would be managed using ICS under KMC’s Emergency Response Plans (Filing ID A63573) as revised according to NEB conditions related to emergency response.”¹²
 - d. “Fish-bearing watercourses encountered by the Project footprint will be monitored during PCEM [Post Construction Environmental Monitoring]. Independent

¹⁰ Trans Mountain Response to City of Abbotsford IR No. 2 Motion, Exhibit [A4J5A2](#) at p. 1.

¹¹ Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H7Z9](#) at p. 56.

¹² Trans Mountain Response to Langley IR No. 2c, Exhibit [A4K5C6](#) at p. 1.

experts and professionals will conduct annual assessments for five years following construction to meet the requirements of PCEM. Annual PCEM reports will be submitted to the NEB and will be available on the NEB's website."¹³

- e. "The Tree Plan will contain a survey that identifies the species and number of trees to be removed from the construction right-of-way..... The tree planting details (e.g., species, number of trees, locations, etc.) will be defined in the Reclamation Plan."¹⁴
- f. "For those sites requiring site-specific reclamation/restoration plans, these will be developed during the detailed design phase and will be filed with the National Energy Board (NEB), at least 90 days prior to construction in accordance with [previous] NEB draft condition No. 29."¹⁵
- g. "The locations of mainline block valves (MLBVs) will be finalized during the Detailed Engineering and Design Phase of the Project using the criteria in Volume 5A, Section 4.4.2 and Volume 4A, Section 3.2.15.1 of the Application. This could result in one or more MLBVs being located within the Township of Langley."¹⁶
- h. "Measures related to air quality during construction will be provided with the updated EPPs [Environmental Protection Plans] to be filed at least 90 days prior to commencing construction with the NEB as per [previous] Draft Conditions Nos. 29 and 30 of the NEB's Letter – Draft Conditions and Regulatory Oversight (Filing ID A3V8Z8)."¹⁷
- i. "Noise management plans that will be developed for the Project construction and operation will incorporate the applicable components of the NEB Draft Conditions of the NEB's Letter – Draft Conditions and Regulatory Oversight (Filing ID A3V8Z8) to limit the effect of noise at sensitive receptors and include a monitoring component to verify effectiveness of controls."¹⁸

¹³ Trans Mountain Response to City of Abbotsford IR No. 2 Motion, Exhibit [A4J5A2](#) at p. 4.

¹⁴ Trans Mountain Response to City of Abbotsford IR No. 2 Motion, Exhibit [A4J5A2](#) at p. 7.

¹⁵ Trans Mountain Response to Langley IR No. 2c, Exhibit [A4K5C6](#) at p. 3.

¹⁶ Trans Mountain Response to Langley IR No. 1, Exhibit [A3X6U7](#) at p. 9.

¹⁷ Trans Mountain Response to FVRD IR No. 2, Exhibit [A4H8S0](#) at p. 28.

¹⁸ Trans Mountain Response to FVRD IR No. 2, Exhibit [A4H8S0](#) at p. 29.

j. “Trans Mountain will develop Traffic and Access Control Management Plans (TACMPs) and local Traffic Control Plans (TCPs) to mitigate effects, as indicated in Section 5.3, Volume 4B. Trans Mountain will develop the TACMP for the Project and TCPs for particular construction contracts.”¹⁹

34. All of these examples address issues that will fundamentally impact local governments. It is uncontroverted that these plans must be developed. However, a key outstanding issue—which will be determinative of whether impacts of the proposed project are *actually* mitigated—is, in the Local Governments’ submission, *how* these plans will be developed.
35. With respect to plans that will directly affect local governments’ interests, Trans Mountain has committed on the record to “working with” local governments, or “seeking to understand” the applicability of the local government’s bylaws in the finalization of these plans.²⁰ However, these vague commitments by Trans Mountain do not ensure that impacts upon the local governments will *actually* be monitored, managed and mitigated effectively once construction and operation of the TMEP are underway.
36. The Local Governments submit that the Board must take an active regulatory oversight role through the life of the project if it is approved. This means that mitigation measures must be developed and specified by the Board early—generally before project approval. Where measures to prevent or mitigate impacts must be developed subsequent to approval, the Board must maintain an oversight role to ensure that where appropriate (i.e. for measures that affect local government), local government input has been responsively incorporated into those mitigation measures. Plans must be filed “for approval” with the Board, not simply “filed” as many draft provisions currently contemplate. And where consultation with local government is required, the Board should inquire into and ensure that meaningful and responsive consultation has occurred.
37. The Local Governments submit that Trans Mountain should be required to demonstrate that it has met the standards of consultation it agreed to in response to an information

¹⁹ Trans Mountain Response to Valemount & RDFFG IR No. 1, Exhibit [A3Y3Q1](#) at p. 22.

²⁰ See e.g. Trans Mountain Response to City of Abbotsford IR No. 1, Exhibit [A3X5Z2](#), at p. 11 and 17.

request from the City of Abbotsford. The City of Abbotsford defined the elements of meaningful consultation in its information request, to which Trans Mountain said: “Trans Mountain is generally agreeable to all of these elements”.²¹ These elements are:

“Please confirm that Trans Mountain defines the scope and content of the terms “consult”, “consultation”, “work with”, “engage with”, “meet with” and “input” for the purposes of the TMEP to include the following elements:

- i. notice of a matter to be decided, in sufficient detail to permit the party to prepare its views on the matter;
- ii. in consultation between or among parties, if requested by a party, sufficient information in respect of the matter to permit the party to prepare its views on the matter;
- iii. a reasonable period of time to permit the party to prepare its views on the matter;
- iv. an opportunity for the party to present its views on the matter;
- v. a full and fair consideration of any views on the matter so presented by the party; and
- vi. an agreed upon dispute resolution process for any disputes regarding the interpretation, application or implementation of the above consultation provisions.”²²

38. If Trans Mountain submits an emergency, integrity or environmental management program plan as required by the Regulation that is inadequate on its face, the Board may (under s. 5 of the Regulation) order amendments if the Board considers it necessary for safety or environmental reasons or if it is in the public interest.²³ However, there is no mechanism in legislation for the public or local governments to provide representations to the Board on the adequacy of these plans after the public hearing period for the TMEP is closed. Nor is there a requirement in the legislation that the Board consider local government input into the adequacy of these plans. There is also no mechanism in place to address the adequacy of plans that are not required by the Regulations, such as a socio-economic monitoring plan. Thus, if Trans Mountain says that it will conduct monitoring but does not specify when, how, to what standard, how often, or for how

²¹ Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 4.

²² City of Abbotsford, IR No. 2 to Trans Mountain, Exhibit [A4G5Y4](#) at p. 5.

²³ *National Energy Board Act* R.S.C., 1985, c. N-7 - National Energy Board Onshore Pipeline Regulations (SOR/99-294), s. 5.

long, then it is unclear whether i) the NEB will deem these commitments to be adequate, and ii) how the NEB will enforce compliance with such a vague commitment.

39. A useful example that illustrates this point arises with respect to tree loss in urban areas. The Board has acknowledged that “a number of intervenors have raised concerns related to tree loss and replacement within urban areas along either the preferred or an alternative route”, including the Township of Langley and City of Abbotsford.²⁴ It was only through the City of Abbotsford’s information request that all municipal intervenors were able to secure the commitments from Trans Mountain in developing municipal-specific Tree Plans:

“Trans Mountain will engage a qualified arborist to develop a Tree Plan specific to municipal lands directly impacted by the pipeline construction. This plan will identify the species and number of trees to be removed from the construction right-of-way. It will be provided to the City or Municipality, and will be used to develop details of the Reclamation Plan in consultation with the City and landowners”.²⁵

40. This is one example where local governments’ input is invaluable in shaping the mitigation measures that should be imposed on Trans Mountain to ensure that the precautionary principle and adaptive management are in place for the TMEP. These are the types of submissions that the NEB should seek and consider when it is deciding whether to approve any plan by Trans Mountain.
41. Local governments have an important regulatory function on the ground and stand to be more directly impacted than other levels of government. The Board must recognize this regulatory function by ensuring that local governments can provide input on Trans Mountain’s plans.
42. The Local Governments will, accordingly, also make submissions respecting conditions that require the proponent to file plans in the future “for approval” by the Board. Where such plans are highly relevant to the local jurisdictions through which the pipeline passes (such as the Environmental Protection Plans, Traffic Control Plans, and Air Emissions Management Plans), provision should be made to ensure meaningful consultation by Trans Mountain with local governments in development of the monitoring and

²⁴ NEB Letter and Information Requests Round 6 to Trans Mountain, Exhibit [A4R4W1](#) at p. 14.

²⁵ Trans Mountain Response to NEB IR No. 6, Exhibit [A4R614](#) at p. 57 and see NEB IR No. 6 to Trans Mountain, Exhibit [A4R4W1](#) quoting commitments made in response to City of Abbotsford’s IR at p. 14.

mitigation plans, and for the Board to receive and consider local government input on the adequacy of the plans.

43. The Local Government submissions will also address the need for conditions to contain enforceable compliance mechanisms, and the independent monitoring of impacts.
44. The Regulations under the *NEB Act* set out the inspection and compliance requirements for pipeline companies. Pipeline companies self-audit their own compliance with the certificate conditions.²⁶ While the NEB says it detects non-compliance through the pipeline company's self-reporting audit, inspections, compliance meetings, investigations, and in response to complaints and concerns²⁷, in 2013, the NEB regulated approximately 73,000 kilometres of interprovincial and international pipelines²⁸. In 2014, the NEB carried out 230 inspections of the 100 companies under its jurisdiction²⁹, which is an average of 2.3 inspections per company per year. As such, the NEB is limited in the number of inspections it carries out in relation to the amount of pipeline that is under construction or in operations across Canada.
45. If monitoring during construction and operation reveals unmitigated impacts of the TMEP in local governments' jurisdiction, then Trans Mountain should be required to develop further mitigation measures in meaningful consultation with local governments, and compensate for any unmitigated impacts to local governments.³⁰
46. Finally, Trans Mountain has made commitments to the Local Governments in response to information requests; however, as set out in detail at Appendix A to these submissions, many of these commitments are not reflected in its commitment tracking table to the Board.³¹ The Local Governments submit that Trans Mountain should be required to incorporate the list of commitments outlined in Appendix A to its list for the

²⁶ *National Energy Board Act* R.S.C., 1985, c. N-7 - National Energy Board Onshore Pipeline Regulations (SOR/99-294), s. 55.

²⁷ NEB's Regulatory Framework: <https://www.neb-one.gc.ca/sftnvrnmnt/prtctng/index-eng.html#s3>

²⁸ Major Pipeline Systems and Frontier Activities Regulated by the National Energy Board: <https://www.neb-one.gc.ca/sftnvrnmnt/sft/dshbrd/rgltdpplns-eng.html>

²⁹ Pipeline Companies Regulated by the NEB: <https://www.neb-one.gc.ca/bts/whwr/cmpnsrgltdbnb-eng.html>

³⁰ See Trans Mountain Response to Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 4 for Local Governments' definition of "consultation".

³¹ Trans Mountain Response to NEB IR No. 6.01-Attachment 1 (Commitments V3 July 2015), Exhibit [A4R6I5](#).

Board. The Local Governments further submit that, given the expectation of ongoing engagement between Trans Mountain and local governments, that local governments have input on Trans Mountains' commitment tracking in this regard, with the option to require changes if the listed commitments are incomplete or inaccurate.

47. The Local Governments will throughout the submissions below identify suggested conditions and amendments to the draft conditions that are necessary and desirable for the public interest to mitigate or monitor these impacts and which should be attached to a CPCN for this project. A summary of the proposed amendments are attached at Appendix B.

II. Socio-economic Mitigation and Monitoring

A. Increased Costs to local governments

1. There will be increased infrastructure related costs to local governments

48. The Application recognizes that there will be disruption to local governments during construction. However, there is no recognition of the long term economic impacts of the pipeline presence within municipal boundaries. The evidence demonstrates that these costs will be significant for local governments. This is a matter squarely within the Board's mandate.³² This is recognized in part by the Board's draft Condition #17 ("Socio-Economic Effects Monitoring Plan"), which acknowledges the need for ongoing monitoring of socio-economic impacts of the Project.
49. However, Condition #17 omits the requirement that Trans Mountain track the cost impacts to taxpayers and local governments for both the short-term construction period and the long- operation of the TMEP. The costs will be ongoing over the life of the TMEP, and will be disproportionately borne by local governments unless Trans Mountain is required to monitor and compensate for these costs.
50. The City of Abbotsford and Township of Langley participated with three other lower mainland municipalities (the Cities of Surrey, Coquitlam and Burnaby) in commissioning independent expert evidence on the projected additional annual costs to

³² See: *National Energy Board Act* RSC 1985 c. N-7 at s. 52(2)(e) "any public interest that in the Board's opinion may be affected by the issuance of the certificate or the dismissal of the application".

these municipalities arising from the presence of the TMEP inside their boundaries. The resulting report from Associated Engineering, (the “Martin Report”)³³ demonstrates the significant error in Trans Mountain’s assessment that there will not be significant residual impact to municipalities on linear municipal infrastructure from the presence of the pipeline.

51. As the Martin Report demonstrates, the municipalities will face significant future infrastructure maintenance and replacement costs because of the TMEP: estimated at \$256,000 annually for the Township of Langley and \$336,000 annually for the City of Abbotsford. This amounts to approximately \$12,800,000 over the 50 years for the Township and \$17,000,000 for the City of Abbotsford.³⁴
52. The municipalities submit that there is no basis in law, or in the equitable distribution of benefits and burdens, that requires the taxpayers of these municipalities to subsidize these true costs of the privately held benefit the TMEP would bring to the applicant company. On this point, the City of Abbotsford and the Township of Langley refer to and adopt the joint municipal submissions out in full in the submissions of the City of Surrey at section 2.0.
53. The joint municipal submissions included in the City of Surrey’s submissions are comprehensive on this point, and will not be reproduced here, but are appended for ease of reference at Appendix C herein (the “Joint Municipal Submissions on Increased Infrastructure Costs from Pipeline”).³⁵ Those submissions establish:
 - a. The Board has the jurisdiction under s. 108 of the *National Energy Board Act* to impose conditions related to utility and highway occupation and crossing issues arising from the TMEP;
 - b. Municipalities will incur present and future costs as a consequence of the TMEP impacting utilities and crossing and occupying highways;

³³ City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#).

³⁴ City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#) at p. iv.

³⁵ The Book of Authorities produced by the City of Surrey in support if the Joint Municipal Submissions on Increased Infrastructure Cost from Pipeline are adopted and referred to.

- c. Trans Mountain does not have agreements in place with municipalities to address impacts on utilities and highway crossing and occupation by the existing pipeline;
- d. It is the regulatory norm (not the exception) under both provincial and federal legislation, that terms related to occupation and crossing of highways and other utilities—including allocation of present and future costs—are established before construction begins;
- e. Without conditions being imposed by the Board—establishing timelines in which Trans Mountain must carry out necessary pipeline work to accommodate utility infrastructure projects including highway construction, widening and improvement projects—substantial delay will be suffered by municipalities, as well as liability arising from third party delay claims;
- f. Trans Mountain should be required, as a condition of any approval, to enter into highway license and crossing agreements related to any impacted utilities, including highway occupation and crossing. Alternatively, terms governing utility crossing and occupation should be imposed as a condition of approval.

- 54. The following submissions further illustrate the points made in the joint submission included in the City of Surrey written submission, but do not supplant that submission.
- 55. Trans Mountain has stated that there are “no residual effects identified related to linear infrastructure disturbance” and acknowledged that there may be “limitations to future municipal linear infrastructure planning”.³⁶ The sort of infrastructure at issue includes buried utilities such as water, sewer and storm systems; roads, boulevards, sidewalks, bike lanes and overland drainage (ditches).³⁷ For example, the pipeline intersects the FVRD’s water supply infrastructure in at least five locations.³⁸
- 56. Trans Mountain does state that:

³⁶ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 123.

³⁷ City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#) at p. 3-5.

³⁸ FVRD Written Evidence Submission, Affidavit of Alison Stewart, Exhibit [A4L8V6](#) at para. 24.

“Once installed, the proposed pipeline will become an additional underground pipe that municipalities must incorporate and take into consideration in their infrastructure planning. The residual effect will continue as long as the pipeline remains in place”.³⁹

57. However, Trans Mountain concludes that while the impacts from limitations on municipal linear infrastructure planning will be “long term” and “continuous”, the overall impact is “not significant”.⁴⁰
58. This is demonstrable minimization of the impacts the municipalities face. The municipalities already incur additional cost relating to the existing Trans Mountain pipeline crossing municipal lands and utilities. The analysis in the Martin Report concluded that the City of Abbotsford incurs an additional average cost of approximately \$559,300 a year, and the Township of Langley and additional average annual cost of approximately \$440,500, because of the existing pipeline.
59. The City of Surrey’s evidence provides an illustrative example. The City of Surrey has submitted significant evidence of the additional infrastructure costs to that municipality attributable directly to the impacts of the existing Trans Mountain pipeline:
- a. When the City of Surrey needed to build an underpass of Highway No. 1 at 156th street, this required the lowering of the existing Trans Mountain pipeline. Kinder Morgan Canada Inc. would only agree to lower the pipeline if the City of Surrey paid the whole cost of doing so. This amounted to \$1,767,682.
 - b. Kinder Morgan Canada Inc. required the City of Surrey to pay all costs associated with reinstating an existing support structure for the pipeline, totaling approximately \$387,120. The City of Surrey’s uncontroverted evidence before the Board is that these costs to the City of Surrey would have been avoided if the existing Trans Mountain pipeline had been designed to accommodate a future road above it and future utilities in proximity to it.

³⁹ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 136.

⁴⁰ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 127.

- c. During design discussions of the South Fraser Perimeter Road in Surrey, the City of Surrey was advised by the design engineering consultant that the existing Trans Mountain pipeline crossing of the South Fraser Perimeter Road required the construction of a bridge structure over the pipeline and approximately an additional one million dollars (\$1,000,000.00) of lightweight fill and associated design costs to avoid settlement on the pipe.
60. Much of the growth in Langley has developed since the installation of the original Trans Mountain pipeline, therefore the Township has not had to face the same degree of increased costs of replacing aging infrastructure in and around the existing pipeline that the City of Surrey has faced. However, the Township of Langley has provided evidence of Trans Mountain causing expense and delay from the existing pipeline related to operations and maintenance activities such as tree planting, ditch cleaning and road maintenance.⁴¹
61. The Martin Report also identifies several additional cost sources for municipalities:
- a. Kinder Morgan's design requirements; for example, in order to install a gravity sewer underneath the pipeline, municipalities must incur costs to meet design criteria such as deeper excavations, new force mains, new pump stations and additional utilities;
 - b. Delays to meet Kinder Morgan's permitting and construction requirements; slow response times from Kinder Morgan; and waiting for Kinder Morgan to inspect and recoat the pipeline when the pipe is exposed for construction by municipal crews;
 - c. Internal administration to process Kinder Morgan's design and construction requirements, coordinating staff around delays associated with the pipeline and additional document handling, including filing, phone calls and project management;
 - d. Increases in risk profile and liability due to having to delay repairs to municipal infrastructure because of Kinder Morgan's requirement to wait for their approval. For

⁴¹ City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#) at p. 3-3.

example, the City of Surrey obtains additional insurance each year to cover municipal crews for work near the pipeline.⁴²

2. Mitigation measures should be enforced to avoid unnecessary additional costs to local governments

62. Additional costs can in some cases be avoided by appropriate mitigation measures being identified and required early in the design and approval process. The Martin Report identified measures that could be taken in the design and construction phase of the TMEP that would assist in limiting the additional costs to municipalities from the TMEP. The Local Governments submit that these measures are reasonable and appropriate, and the implementation of them should be a condition of any approval of the proposed pipeline. The measures recommended by the Martin Report are:
- a. Install casings across the TMEP for existing utilities and identified future buried utilities to reduce excavation around the TMEP;
 - b. Remove and replace existing parallel utilities outside of the minimum 5 m zone of influence;
 - c. Twin the pipeline where possible;
 - d. Increase the pipe wall thickness of the TMEP through municipalities;
 - e. Install the TMEP as deep as possible in areas of soft/difficult soil conditions;
 - f. Install the TMEP using trenchless technologies wherever possible;
 - g. Require Trans Mountain to develop detailed crossing, operating and design procedures specific to each impacted local government in conjunction with each local government;
 - h. Include a local government representative (for each municipality/regional district) during the detailed design and planning phases of the TMEP;⁴³ and

⁴² City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#) at p. 3-8.

- i. In instances where the TMEP crosses a road and the TMEP is constructed to a standard to prevent settlement (i.e. poor soils or pilings), the road base should also be constructed in a manner to ensure that it and the pipe settle at the same rate.⁴⁴
63. The following mitigation measures should be imposed during the operations phase of the TMEP:
- a. Require regular settlement monitoring of the TMEP in areas of soft/difficult conditions and require Trans Mountain to complete modifications of the TMEP if the settlement rate is different than that for adjacent utilities;
 - b. Require Trans Mountain to accept responsibility for all infrastructure rehabilitation which occurs due to Trans Mountain requiring access to its pipeline and due to any failure of Trans Mountain facilities. Currently, the municipalities bear some or all of the cost of rehabilitation which can result in significant additional cost if the assets to be rehabilitated are of high value and/or high importance to the local government's day to day functions;
 - c. Reduce the number of permits required by Trans Mountain for day to day work; and
 - d. Enforce a delay penalty for work completed by Trans Mountain which runs over schedule and affects the schedule of major local governments' construction projects.⁴⁵
64. Further, extra costs and resource strain faced by the City of Abbotsford could be avoided by the installation of culverts in the ditches within the right of way in the Sumas and

⁴³ The City of Abbotsford notes that the spirit of recommendations (g) and (h) is currently being met through the monthly technical working group meetings between the local government and Trans Mountain's civil engineering consultant. The City notes that after the close of evidence, Trans Mountain committed to continuing these Technical Working Group meetings: "It is Trans Mountain's intent that Technical Working Group meetings will continue and Trans Mountain will continue to share new information as it becomes available, including information about construction schedules and execution plans." Trans Mountain Letter to Mayor Braun, City of Abbotsford, July 20, 2015. The continuation of these working group meetings with the enforceable and substantive goal of incorporating local government input into the detailed design and planning of the pipeline is an essential condition of any approval.

⁴⁴ City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#) at p. 6-1.

⁴⁵ City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#) at p. 6-2.

Matsqui Prairie flood plains.⁴⁶ This would eliminate the increased costs associated with delayed and hand cleaning of the ditches in the pipeline right of way. The City of Abbotsford submits that Trans Mountain should be required to install culverts over or under the pipeline at these locations (in consultation with the City of Abbotsford engineering department regarding culvert sizes) as a condition to the CPCN.

3. Compensation for impacts to local governments is not recovered through taxation: Joint Municipal Response to Trans Mountain

65. The City of Abbotsford and Township of Langley refer to and adopt the submissions of the City of Coquitlam in response to Tran’s Mountain’s arguments about municipal taxation. A copy of these submissions is attached as Appendix D to this Argument (the “Joint Municipal Response to Trans Mountain’s Submissions on Municipal Taxation”).
66. The Joint Municipal Response to Trans Mountain’s Submissions on Municipal Taxation sets out the fundamental distinction between compensation for socio-economic impacts from the proposed project, and future taxation revenues arising from the pipeline’s occupancy of property within the municipalities. In brief summary, the Cities of Abbotsford and Township of Langley emphasize the following points set out in the Joint Municipal Response:
- a. In response to the call from Lower Mainland municipalities for a causal cost recovery mechanism, Trans Mountain has said that it will “continue to pay municipal taxes that are in excess of the costs of municipal services required by Trans Mountain”.⁴⁷ However, this response:
 - i. is made without any evidence of the costs of municipal services that benefit Trans Mountain, and
 - ii. represents a fundamental misunderstanding of municipal revenue sources and implies a causal relationship between tax revenue and service consumption where no such relationship exists.

⁴⁶ City of Abbotsford, Written Evidence Submission, Affidavit of Pardeep Agnihotri, Exhibit [A4L6E0](#) at para 7.

⁴⁷ Trans Mountain Revised Final Argument (clean), Exhibit A4W6L8 at p. 116.

b. As a matter of law, taxes are not fees for service: see *Re Eurig Estate*, [1998] 2 S.C.R. 565. As helpfully explained by the City of Coquitlam in the Joint Municipal Response:

Property taxation is based on the assessed value of the land or improvements and the property's usage classification (e.g. residential vs commercial vs industrial), and has no direct relationship to the occupiers' actual or intended use of general municipal services. For example, homeowners cannot "opt out" of paying some or all of their assessed taxes because they choose not to use the municipally-funded library or recreation services, or because they were fortunate enough not to be the victims of property crime or a fire requiring police or fire suppression services the previous year. The differing intensities with which diverse land uses draw on general municipal services is arguably reflected in the differing taxation rates assigned to each property classification (i.e. the tax burden and tax shifts), matters of policy decision for elected local officials within the constraints of Provincial regulation.⁴⁸

c. It is also important to note that the total amount paid to municipalities as taxes includes remittances that municipalities are required to collect on behalf of other taxation authorities such as school boards, B.C. Assessment Authority, regional districts and others.⁴⁹ The example of proportionate remittance provided by the City of Coquitlam in the Joint Municipal Response is a representative example of the remittance obligations imposed upon the Township of Langley and City of Abbotsford in relation to the taxes received from Trans Mountain.

d. Payment of property taxes does not alleviate any user from otherwise applicable payment for land use, and no distinction should be drawn for Trans Mountain.

67. The City of Abbotsford and Township of Langley share and adopt the further Joint Municipal Response that the stated benefits of the Project are not benefits to the municipalities as corporations or to their citizens. Trans Mountain identifies the benefits of the Project as follows:

The main benefits of the Project result from alleviating the current shortage of pipeline capacity, diversifying market access (e.g., to growing markets in the Pacific basin) and providing option value to producers. The Project will enable

⁴⁸ See, for example, the Municipal Tax Regulation (B.C. Reg. 426/2003), Taxation Rate Cap for Class 2 Property Regulation (B.C. Reg. 329/96).

⁴⁹ *Community Charter*, at s. 197(1)(b).

Western Canadian producers to realize higher prices throughout the life of the Project.⁵⁰

68. These are not benefits borne by or brought to the municipalities that host the pipeline.
69. As noted in the joint submission submitted in full by Coquitlam, the *Local Government Act* RSBC 2015 c. 1, s. 644 establishes taxation rates based upon the number of subscribers served or amount of utility consumed by local consumers in the municipality. There is no local use of the Trans Mountain pipeline. The municipalities are a thoroughfare for getting the petroleum product to the Pacific Rim and beyond.

4. A cost recovery mechanism for increased municipal costs must be a condition of any approval: Joint Municipal Conditions

70. In sum, as set out above:
- a. There is a demonstrated prospect of significant increased costs to municipalities from pipeline infrastructure crossings, and
 - b. Such costs are not compensated to municipalities through taxation.
71. Therefore any approval should be subject to the following conditions:
- a. That crossing agreements must be entered into with each local government prior to construction to minimize and mitigate impacts to local governments or in the alternative conditions shall be imposed by the Board; and
 - b. Costs to local government, and to those operating pursuant to local government approval, that would not arise but for the crossing of the TMEP, shall be compensated by Trans Mountain.
72. Having regard to the above submissions in this section, the Local Governments refer to and adopt the proposal of the Joint Municipal Conditions set out by the City of Surrey. It is submitted that the following terms and conditions should be imposed on any Certificate that may be issued. These terms and conditions should apply to the entire expanded pipeline system being both the proposed pipeline as well as the existing pipeline, or in the alternative to the proposed pipeline:

⁵⁰ Trans Mountain Revised Final Argument (clean), Exhibit [A4W6L8](#) at p. 398.

JOINT MUNICIPAL CONDITIONS

Present and future costs arising as a consequence of the pipeline occupying or crossing highways and impacting utilities

1. Trans Mountain shall be responsible for all present and future costs that will be incurred by the Municipality or others undertaking work in connection with a Municipality approved project or development (the “Approval Holder”), that the Municipality or Approval Holder would not have incurred but for the location, installation, construction and/or operation of the pipeline across, under, over or within the highway or in proximity to a municipal utility including, but not limited to:

- (i) costs to realign, raise or lower the pipeline;
- (ii) costs to excavate material from around the pipeline;
- (iii) costs to add casing or other appurtenances for the protection of the pipeline; and
- (iv) costs to accommodate future construction projects including, but not limited to, the construction, upgrading, maintenance, renewal, widening and/or replacement of any improvements, infrastructure and/or highway that occurs across, under, over or in proximity to the pipeline.

Necessary consent from Trans Mountain and other interest holders in Trans Mountain’s statutory right of way/easement to enable municipalities and the Province to dedicate required land for highway/road.

2. Trans Mountain shall in respect of future widenings, expansions or improvements of the highway:

- (i) consent (without conditions and without compensation) to the extinguishment of any statutory right of way or easement in favour of Trans Mountain over those portions of land required by the Municipality or the Province to be dedicated as highway or road in order that those portions of land may be incorporated into and form part of the existing highway that is occupied by the pipeline;
- (ii) obtain the consent (without conditions and without compensation) of any mortgagee or other person having an interest in the statutory right of way or easement to be extinguished over that portion of land to be dedicated as highway or road in order that those portions of land may be incorporated into and form part of the existing highway that is occupied by the pipeline.

3. Trans Mountain shall in respect of creation of future dedicated highways and roads over the proposed pipeline that are approved or required by a municipality or imposed as a condition of development approval (whether as a condition of subdivision approval, rezoning, or other land development project approval and whether related to a land development project initiated by a private developer or by the municipality):

(i) consent (without conditions and without compensation) to the extinguishment of any statutory right of way or easement in favour of Trans Mountain over that portion of land that is to be dedicated as highway or road;

(ii) obtain the consent (without conditions and without compensation) of any mortgagee or other person having an interest in the statutory right of way or easement to be extinguished over that portion of land that is to be dedicated as highway or road.

Fixed timing of pipeline work to be performed by Trans Mountain to accommodate highway, utility, infrastructure and improvement construction, widening and improvement projects so as not to delay municipal projects

4. Trans Mountain shall perform all necessary pipeline related work within **90 days**, or within such period of time mutually agreed upon between the Municipality and Trans Mountain, or within such other time period as may be varied by Order of the Board so as not to delay any future highway, utility, infrastructure or improvement project that occurs across or in vicinity of the pipeline which might disturb the pipeline or which necessitates realigning, raising or lowering the pipeline or excavating material from, over or around it, or adding casings or other appurtenances deemed necessary by Trans Mountain for the protection of the pipeline.

Inconsistent Terms contained in Permits are Void

5. Unless otherwise ordered by the Board any permit issued pursuant to s.112 of the *National Energy Board Act* or the *National Energy Board Pipeline Crossing Regulations (Part 1 and Part 2)* shall be consistent with the terms of this Order and to the extent of any inconsistency such inconsistent terms are void.

Release and Indemnification in favour of Municipality

6. Trans Mountain shall indemnify and save the Municipality harmless from any and all liabilities, damages, claims, suits and actions arising out of Trans Mountain's operations and/or the construction, installation or placement of its infrastructure, including but not limited to, the pipeline, across, under, over or

within the highway or in proximity to municipal utilities other than liabilities, damages, claims, suits and actions resulting the gross negligence or wilful misconduct of the Municipality.

7. Notwithstanding anything else in this Order, the Municipality shall not be liable to any person in any way for special, incidental, indirect, consequential, exemplary or punitive damages, including damages for pure economic loss or for failure to realize expected profits, howsoever caused or contributed to.

Requirement to Enter into Agreements with Affected Municipalities Prior to Construction

8. A Condition(s) requiring Kinder Morgan to enter into a Highway Licence and Crossing Agreement(s) related to impacted utilities including highway occupation and crossings with each affected municipality and affected Provincial highway authorities prior to construction, failing which terms shall be imposed by the NEB.

Conditions Apply to Entire Expanded Pipeline System: To Both Existing and Proposed Pipelines

9. The above conditions 1 to 8 inclusive shall apply to the entire expanded pipeline system being both the existing and proposed pipelines.

B. Socio-economic costs of pipeline or facility rupture

73. The submissions above address the increased costs arising from the normal operation, maintenance and construction of municipal infrastructure in the ordinary life of a municipality. They do not address the additional costs that fall upon a local government in the event of a spill arising from pipeline or facility rupture. While the costs associated with emergency response and management are addressed in Part IV below, it is important to recognize that basic yet essential infrastructure may be impacted by such an event.
74. An example of ongoing socio-economic costs that would result from a spill from the TMEP is the costs to replace damaged water supply infrastructure and supply citizens in the interim. Based on current Metro Vancouver water rates and the current volume of water required for Langley residents in this area, it would cost Langley approximately \$2 million per year to purchase water from Metro Vancouver to supply the existing

population that depends on Fort Langley's municipal water well system in the event of a spill.⁵¹

75. The Local Governments submit that a fundamental condition of approval must be that any such cost must be recoverable promptly and completely from Trans Mountain.
76. However, in response to the City of Abbotsford's information request respecting whether Trans Mountain will pay for all costs incurred by the City for a spill including all costs incurred by the City because of a spill from a Trans Mountain pipeline, regardless of whether such costs are deemed to be damages payable at law, Trans Mountain said in part:

"Municipalities are responsible for the provision of conventional municipal services that include law enforcement, traffic planning and management, municipal infrastructure, emergency response services and other services normally provided by a municipality to its citizens. In communities where Trans Mountain operates, it contributes to the costs of such services through municipal taxes and typically draws little on municipal services given the nature of standard pipeline operations. ... It is likely that the additional tax revenue to the Province would result in some benefits to the City. Trans Mountain also contributes to the community by providing funds for the support of community events and groups through its Community Investment Program. Trans Mountain would not expect to pay additional amounts to a municipality for the existing Trans Mountain Pipeline system or the Project over and above the standard costs assessed for similar businesses for the provision of standard municipal services."⁵²

77. The Local Governments submit that this response fails to address the true additional costs to local governments in the event of pipeline or facility accident, and therefore the conditions attached to any approval must do so.

C. Pipeline Routing

78. The Local Governments have in many cases not been provided with information regarding the feasibility of trenchless construction in areas of particular concern within their jurisdictions. In addition, the actual location of the existing pipeline within the existing right of way has also not been provided to Local Governments, nor has Trans Mountain included the Local Governments in discussions about alternative route corridors or the general route selection for the TMEP. It has therefore been difficult to

⁵¹ Township of Langley, Written Evidence Submission, Affidavit of Kevin Larsen, Exhibit [A4L7S0](#) at para 4.

⁵² Trans Mountain Response to Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 38.

assess Trans Mountain's proposed general route and provide evidence during the course of these proceedings regarding impacts of the general route without knowing this information.

79. As set out in the evidence of the City of Abbotsford, depending upon the actual location of the existing pipeline and the design location of the proposed pipeline, the working room requirements during construction could be substantial and thereby greatly impact residential properties beyond the existing right of way limits.⁵³
80. Local governments have institutional and historical knowledge about the impact the existing pipeline has had on their jurisdiction. They are, in many cases, in the best position to advise where the proposed route will cause the greatest impacts, and to suggest alternative routing options or advisedly recommend trenchless construction methods.
81. Despite this, the Local Governments have had difficulty obtaining meaningful information from Trans Mountain on routing options and construction methods. For example, the City of Abbotsford obtained information by observation at a public open house that geotechnical drilling was being undertaken in the residentially dense Sandy Hill area.⁵⁴ Despite repeatedly expressing its concerns about this residential area in information requests, the City is still unclear about Trans Mountain's preferred route or whether it will be utilizing trenchless or open cut method of construction in key areas.⁵⁵
82. Thus, the Local Governments submit that Trans Mountain should be required to develop its general pipeline route with input from and in meaningful consultation with local governments.

⁵³ City of Abbotsford, Written Evidence Submission, Affidavit of Phillip Blaker, Exhibit [A4L6D1](#) at para 12.

⁵⁴ City of Abbotsford, Written Evidence Submission, Affidavit of Phillip Blaker, Exhibit [A4L6D1](#) at paras 7-8.

⁵⁵ Since the close of intervenor's evidence in this proceeding, Trans Mountain has advised that it will be using the Direct Drilling trenchless method in the Sandy Hill neighbourhood (Trans Mountain Letter to Mayor Braun, City of Abbotsford, July 20, 2015). The City of Abbotsford notes that this commitment should become a condition of approval under the obligation to track and implement commitments in the commitment tracking table (draft Condition#8 "Commitments tracking table").

83. In addition, the Local Governments propose that Trans Mountain be required to submit an environmental and socio-economic assessment for all detailed route re-alignments that extend beyond the existing right of way.

D. Provision of Data

84. Condition #102 (“Updated engineering alignment sheets and drawings”) should be amended to require Trans Mountain to provide its engineering alignment sheets and drawings to local governments well in advance of 90 days prior to commencing installation in order to obtain local governments’ input into these drawings. The NEB should impose an approval process for these sheets (i.e. they should be submitted “for approval”), with the opportunity for local government input, as these will have a direct impact on local governments.
85. Similarly, Condition #135 (“Pipeline Geographic Information System (radio) data) should require the provision of GIS files to local governments within 30 days of the files being developed—not 1 year after commencing operations as the condition currently stipulates.
86. Conditions #93 (“Construction progress reports”), 102 and 135 require Trans Mountain to submit reports and data to the Board. It is unclear what recourse local governments have if Trans Mountain’s reports reveal issues or problems with Trans Mountain’s construction or operation and where non-compliance has occurred. Provision should be made in these conditions to allow the Board to consider input from local governments on these points.

E. Construction Schedule

87. Construction scheduling will, in some cases, be an issue of significant consequence to local governments. Local governments require adequate time to coordinate operational activities such as garbage collection, recycling service and maintenance works, and scheduling of emergency personnel and traffic closures for community events during the construction of the pipeline.⁵⁶

⁵⁶ City of Abbotsford IR No. 1 to Trans Mountain, Exhibit [A60295](#) at p. 28; FVRD IR No. 1 Attachment Letter from G. Toth (March 18, 2014), Exhibit [A3W7Q9](#) at p. 3.

88. Where the construction phase is delayed or extended, any mitigation measures including scheduling considerations that Trans Mountain has offered to offset disruption to public, business, commercial and residential areas becomes unresponsive or insufficient to adequately address the socio-economic impact to local communities.⁵⁷
89. The Local Governments submit that Condition #58 (“Construction schedule”) is insufficient, as it omits the requirement that Trans Mountain seek local governments’ feedback on construction scheduling and coordinate its schedule with local governments. Trans Mountain must be required to provide its schedule at least 90 days in advance prior to commencing construction in the local government jurisdiction where construction will be occurring next. In the event of disputes regarding the construction schedule, the Board should provide neutral dispute resolution and regulatory oversight.

F. Socio-economic impacts during construction phase

90. The Local Governments submit that Trans Mountain is seeking to rely on local government services to support and mitigate the extra-ordinary disruption its construction activities will have on communities without acknowledging its proper responsibility for the added cost burden this will put on those communities.
91. For example, in response to the Village of Valemount and Regional District of Fraser-Fort George’s information request No. 1 regarding its concerns about the impacts of a TMEP construction camp next to the small community of Valemount, Trans Mountain responded without supporting evidence, detail or analysis:
- “As a citizen and tax payer within a municipality, province and country, individuals would receive the benefits of the economic stimulus and tax revenues generated by the project which will help to either offset personal taxes, or provide those jurisdictions with additional revenues for the provision of public services and infrastructure”.⁵⁸
92. Trans Mountain has also stated it will rely on local government policing services to provide security during construction and operations of the TMEP and has said will retain

⁵⁷ Township of Langley IR No. 1 to Trans Mountain, Exhibit [A3W7K1](#) at p. 15; FFGRD and Village of Valemount IR No. 1 to Trans Mountain [A3W7L6](#) at p. 21; City of Surrey, City of Coquitlam, City of Abbotsford, City of Burnaby and Township of Langley Written Evidence, Exhibit B (Report) to L. Martin Affidavit, Exhibit [A4L6E7](#) at p. 25.

⁵⁸ Trans Mountain Response to RDFFG & Village of Valemount IR No. 1, Exhibit [A3Y3Q1](#) at p. 5.

private security services to “supplement, assist and work with municipal policing”.⁵⁹ Police departments are already committed resources that consume a significant portion of municipal budgets. Condition #59 (“Security programs”) should require Trans Mountain to consult with local police in developing its security programs and establish a compensation plan for additional policing costs incurred by local governments as a result of the TMEP.⁶⁰

G. Traffic Control

93. Trans Mountain has committed to apply for a Highway Use Permit where local government bylaws provide for such a permit.⁶¹ This should be confirmed by the Board as a condition of approval.
94. Trans Mountain has stated that it will “work to understand” the applicability of municipal bylaws in relation to traffic control.⁶² Trans Mountain has assessed that traffic effects will be negative, regardless of the size of the community:
- “Overall, Project effects on the transportation infrastructure indicator are considered to be negative, since increased traffic volumes and traffic disruptions on regional roads and highways will not be desirable for existing users. The magnitude of the residual effect is anticipated to be medium; construction traffic could disturb more users in larger centres such as Edmonton, Metro Vancouver and Kamloops, but in those centres there are more options for alternate driving routes. While there may be few users disturbed in smaller communities, alternate access routes in these communities are limited (e.g., Valemount, Blue River, Clearwater) so overall effects may be greater from a community perspective”.⁶³
95. Trans Mountain has stated that it will have to rely on local government first responders and local government staff to close roads, redirect traffic, public transit and other transportation related infrastructure during construction and in the event of an

⁵⁹ Trans Mountain Response to Langley IR No. 2, Exhibit [A3X6U7](#) at p. 46.

⁶⁰ Since the close of intervenor’s evidence, Trans Mountain made the following commitment: “Trans Mountain will reimburse municipalities for reasonable costs and staff time required to monitor and assist Trans Mountain in constructing the Project on municipal lands and in locations where municipal services are located (either parallel to or crossed by Project).” Trans Mountain Letter to Mayor Braun, City of Abbotsford, July 20, 2015. This commitment should become a condition of approval under Condition 59 – Security Programs.

⁶¹ See for e.g. Trans Mountain Response to Langley IR No. 2, Exhibit [A3X6U7](#) at p. 34.

⁶² See for e.g. Trans Mountain Response to Langley IR No. 2 Exhibit [A3X6U7](#) at p. 34.

⁶³ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 135.

emergency.⁶⁴ These impacts will be felt by all local governments, and will be acutely felt by Regional Districts and small communities that have fewer staff resources.

96. Condition #61 (“Traffic Control Plans for public roadways”) must include the requirement that Trans Mountain abide by municipal and regional district bylaws pertaining to streets and traffic, and apply for and obtain a Highway Use Permit where applicable. Trans Mountain should be required to compensate local governments for use of local government resources, staff time and local first responders to administer its traffic closures and should be required to retain private contractors for traffic management in communities where there simply aren’t the local government staff resources to provide service of this scope. This places no greater burden on Trans Mountain than on any other developer, does not affect the core of the pipeline construction undertaking,⁶⁵ and will provide certainty in the regulation and management of traffic impacts from the TMEP construction.⁶⁶

H. Noise Management

97. The Board has recognized that in some case it will be appropriate to compel Trans Mountain to comply with standards which have been set by provincial statutory bodies: see e.g. draft condition #132 (“Post-construction noise surveys”) under which the Board would require demonstrated compliance with the British Columbia Oil and Gas Commission’s *British Columbia Noise Control Best Practices Guidelines*. There is no legal distinction between compelling compliance with standards set by the OGC and those set by local governments, which are also provincial statutory bodies.
98. Local governments have existing standards in place, by bylaw, compelling compliance with noise and nuisance control measures. Such measures do not interfere with the core

⁶⁴ See for e.g. Trans Mountain Response to RDEFG and Village of Valemount IR No. 1, Exhibit [A3Y3Q1](#), at p. 27; Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 37.

⁶⁵ See, for e.g.: *City of Burnaby v. Trans Mountain Pipeline ULC*, 2015 BCSC 2140 at paras 70-80; *Bank of Montreal v. Marcotte*, 2014 SCC 55; *Western Bank v. Alberta*, 2007 SCC 22; *114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)*, 2001 SCC 40; *Burlington Airpark Inc. v. Burlington (City)*, 2014 ONCA 468.

⁶⁶ Since the close of intervenor’s evidence, Trans Mountain made the following commitment: “Trans Mountain will reimburse municipalities for reasonable costs and staff time required to monitor and assist Trans Mountain in constructing the Project on municipal lands and in locations where municipal services are located (either parallel to or crossed by Project).” Trans Mountain Letter to Mayor Braun, City of Abbotsford, July 20, 2015. This commitment should be become a condition of approval under Condition 61 – Traffic Control Plans.

of Trans Mountain's undertaking, nor do they conflict with the NEB's jurisdiction and requirements.⁶⁷ Rather, they are uniform standards required of construction works undertaken within local government boundaries. They would cause no greater burden to Trans Mountain than to any other proponent undertaking work within the same area. Accordingly, the Local Governments submit that under condition #132 Trans Mountain should be required as a condition of approval to comply with municipal noise bylaws or alternatively, to obtain municipal permits to be exempted from noise level bylaws during stipulated hours. The noise monitoring program and contingency plan should be reviewed and approved with input from local governments.

99. The Local Governments submit that draft conditions 147 and 148 should be amended to go further than requiring Trans Mountain to describe the complaint response process for dealing with noise impacts from horizontal directional drilling and construction.
- a. First, condition 147 should apply to trenchless pipe installation generally, not just the horizontal directional drilling technique.
 - b. The condition should be for the protection not only of residential areas, but also agricultural areas where livestock can be affected by adverse noise conditions.
 - c. The conditions should also require a comprehensive communication plan, including the provision of a hotline phone number to which the local governments can direct residents with complaints about noise levels from the TMEP.⁶⁸

I. Coordination of Contractors

100. As outlined by the evidence of the FVRD, Trans Mountain's lack of responsive consultation regarding FVRD's concerns about the presence of two different planning and engineering companies in a small jurisdictional area will unnecessarily increase

⁶⁷ See, for e.g.: *City of Burnaby v. Trans Mountain Pipeline ULC*, 2015 BCSC 2140 at paras 70-80; *Bank of Montreal v. Marcotte*, 2014 SCC 55; *Western Bank v. Alberta*, 2007 SCC 22; *114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)*, 2001 SCC 40; *Burlington Airpark Inc. v. Burlington (City)*, 2014 ONCA 468; and see Trans Mountain Revised Final Argument (clean) Exhibit [A4W6L8](#) at p. 120.

⁶⁸ See for e.g. Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 6.

impacts to FVRD and cause strain on existing limited resources.⁶⁹ A much more appropriate line would have been between FVRD Area “D” and the City of Chilliwack municipal boundary, one kilometre to the west.⁷⁰

101. The project management decision to have two different planning and engineering companies operating in Electoral Area D was made by Trans Mountain without consultation with FVRD and no apparent consideration of local government jurisdiction or capacity.⁷¹
102. As such, the FVRD submits that the Board should require Trans Mountain to limit its planning and engineering work in Electoral Area D to one company. In the alternative, Trans Mountain should be required to coordinate its technical working groups so that FVRD is not required to expend staff resources attending two different sets of working group meetings for two different companies.

J. Waste Management

103. The Village of Valemount & RDFFG reiterate concerns expressed in their information request with respect to the negative effects associated with a temporary construction worker camp in the Village.⁷² Of particular concern is the amount of solid waste that will be generated by the addition of 500-800 workers in the Village, especially given that the Valemount Solid Waste Transfer Station is at full capacity.
104. Trans Mountain acknowledges in its Application that there will be a residual effect despite mitigation measures due to the “temporary increase in solid and liquid waste flow to regional landfills, transfer station sites and wastewater treatment facilities during construction”.⁷³ However, Trans Mountain concluded that this negative effect to waste infrastructure will be “not significant”.⁷⁴

⁶⁹ FVRD Written Evidence Submission, Affidavit of Alison Stewart, Exhibit [A4L8V6](#) at paras 21-29.

⁷⁰ FVRD Written Evidence Submission, Affidavit of Alison Stewart, Exhibit [A4L8V6](#) at para 17.

⁷¹ FVRD Written Evidence Submission, Affidavit of Alison Stewart, Exhibit [A4L8V6](#) at para 22.

⁷² RDFFG and Village of Valemount IR No. 1 to Trans Mountain, Exhibit [A3Y3Q1](#) at p. 4.

⁷³ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 124.

⁷⁴ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 128.

105. Trans Mountain proposes to establish “waste management protocols” in conjunction with regional authorities, and assures the NEB that it will have “mutually agreeable” waste management agreements in place at the time of construction:

“Waste infrastructure and services are generally dictated by demand and are planned by municipalities or regional districts for certain population thresholds. If the addition of several hundred temporary workers in a community surpasses these thresholds, this could affect a particular system’s ability to provide waste services to its users. Some communities, such as those located in the Metro Vancouver Region, have not identified issues related to waste service capacity, partly since the responsibility lies with the Greater Vancouver Sewerage and Drainage District. However, other communities, such as the District of Clearwater and the Village of Valemount have identified capacity issues. The sewage infrastructure in the District of Clearwater is close to capacity and the system can only handle approximately 100-130 new houses. The District of Clearwater indicated that their sewer system likely would not be able to handle both Trans Mountain construction workforce and that of a larger mine (Groulx pers. comm.). The Village of Valemount has indicated that liquid waste treatment can be affected by power outages as a result of the use of lift stations to move sewage (LaBoucane pers. comm.).

The impact balance of this potential residual effect is considered to be negative. Ensuring any temporary construction camps’ detailed waste management protocols are established in conjunction with regional officials will help to reduce the effect. This residual effect is considered to be reversible in the short-term (i.e., effect is limited to the construction phase) and is of low magnitude, as mutually agreeable waste management agreements will be developed with service providers and Trans Mountain has existing agreements in place with multiple waste facilities. The confidence in this evaluation is moderate, since specific landfills and hazardous waste operators will be identified closer to construction and precise waste needs of the Project are still being determined. However, waste capacity was not identified as a key issue during consultation. Trans Mountain has existing agreements with many waste facilities in the context of its current operations”.⁷⁵

106. Trans Mountain has stated that a Worker Accommodation Plan (that has yet to be developed in consultation with Valemount & RDFFG despite the commitment to do so in Trans Mountain’s response to Valemount & RDFFG’s information request) will address camp management and the construction planning will identify mitigation and management of construction debris. This should be included in Condition #18 (“Worker accommodation strategy”).
107. The Village & RDFFG submit that Condition #18 should be amended to require Trans Mountain to develop the worker accommodation strategy with input and approval from local government authorities given the significant potential impact on local governments. The proposed requirement that the strategy be developed “in consultation with”

⁷⁵ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 140.

municipal authorities is vague, and does not ensure that Trans Mountain must take into account and be responsive to local government input in its planning.

108. In the alternative, the condition should require that if Trans Mountain does not obtain the approval of the appropriate local government, it must include the comments of the local government in its filing to the NEB, along with Trans Mountain's reasons for not acceding to the local government's views respecting the worker accommodation strategy. The local government should be permitted to make submissions to the NEB before the NEB determines whether to approve the filing.

K. Landowners

109. The Local Governments submit that Conditions #7 ("Landowner complaint records") and 86 ("Landowner consultation records") require amendments. Specifically, Trans Mountain should be required to provide the complaint record to the landowner within 30 days after receiving the complaint and not "upon request" by the landowner as the condition currently stipulates. Trans Mountain should also be required to submit the complaint records to the NEB at regular intervals, and not "upon request" by the NEB.
110. In the interest of transparency and in order to provide a comprehensive perspective of the nature, frequency and types of complaints being issued against Trans Mountain, the landowner complaint record should be publicly available (with names and addresses redacted in accordance with freedom of information and privacy legislation).
111. Alternatively, Trans Mountain should be required to provide the complaint record to local governments (with personal identifiers removed unless consent obtained) on a semi-annual basis. The evidence submitted by CGLAP outlining the treatment of landowners in Abbotsford and Langley by Trans Mountain/Kinder Morgan staff is indicative of the type of data that would demonstrate over time which issues are systemic and common to many landowners.⁷⁶ With access to appropriate information regarding impacts on landowners, local governments may be well positioned to assist in seeking and developing mitigation measures that address landowner issues on a systemic or common basis, rather than one by one.

⁷⁶ CGLAP, Affidavits of Evidence, Exhibit [A70190](#).

L. Impacts to Business

112. In addition, the Local Governments are concerned about the impact to businesses during construction of the pipeline:

“The impact balance of this residual effect is considered to be negative, as physical disturbance to industrial and commercial use areas during construction and site-specific maintenance could disrupt businesses and deter users/customers from visiting a particular location. As a result, industrial and commercial activities could be disrupted, potentially resulting in a loss of income for local industrial and commercial retailers. Potential effects on business disruption are assessed in Section 7.2.7 Employment and Economy. Physical disturbance to industrial and commercial use areas is caused by construction activities and potentially periods of site-specific maintenance, therefore, is considered to be short-term in duration. Due to the potential for an interruption to business, this residual effect is considered to be of medium magnitude (*i.e.*, more than a nuisance or inconvenience)”.⁷⁷

113. Trans Mountain suggests that a possible mitigation measure in response to the disruption to businesses or commercial establishments is to “provide compensation, in various forms, to private land and property owners according to established industry protocols where losses of damages are proven”.⁷⁸ This is an overly restrictive measure which does not account for business owners who lease their establishments, and burdens local business with the duty to “prove damages” at law. Since Trans Mountain has established that the effect on local businesses is likely to be negative, reducing incomes over the short-term during construction⁷⁹, the Local Governments submit that Trans Mountain should be required to establish a Local Business Compensation Fund to compensate businesses impacted by the pipeline construction, irrespective of land ownership and based on demonstrable loss, but not requiring “proof” of damage at law.

M. Baseline Indicators

114. The Local Governments are concerned that Trans Mountain has to date provided no indication that it will establish reliable baseline data with which to monitor the negative socio-economic impacts of the TMEP on local governments. The FVRD has communicated this concern to Trans Mountain.⁸⁰ Selected baseline indicators must be

⁷⁷ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 112.

⁷⁸ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 164.

⁷⁹ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 165, 167.

⁸⁰ This communication is noted by Trans Mountain in a report provided by Trans Mountain to FVRD recently, and after close of evidence in this proceeding: Trans Mountain Socio-Economic Monitoring Plan (SEEMP) Workshop Summary Report for Distribution to Participants, July 14, 2015. Received by FVRD December 11, 2015.

relevant to the impacts that local governments will incur, and supported by accompanying data. Such indicators would include quantitative and qualitative factors such as crime statistics, emergency room visits, collisions, business complaints and noise complaints.

115. Condition #17 (“Socio-Economic Effects Monitoring Plan”) allows Trans Mountain to self-select the socio-economic baseline indicators to be monitored. To date, Trans Mountain has alluded to monitoring positive socio-economic benefits, such as direct investment in training and increase in employment, but it has yet to provide concrete indicators for measuring negative impacts to local governments.⁸¹ The Local Governments submit that Condition #17 should be amended to require an independent third party to develop the indicators to be monitored, in consultation with local governments.

III. Environmental Mitigation and Monitoring

A. Pipeline Integrity and Design

1. Valve Location and Placement

116. Abbotsford, Langley, and Valemount & RDFFG have each expressed concerns regarding the location and placement of mainline block valves on the TMEP.⁸² The NEB has clearly acknowledged these concerns with the addition of Conditions #34 (“Valve Locations on Line 2”) and 35 (“Valve locations and upgrades—Line 1”). The location of valves is significant because these valves limit the consequences associated with a pipeline leak or rupture.⁸³ The scale and location of leaks or ruptures can have a very significant impact on the local community in which it arises. Often local governments will have particular and valuable local knowledge about risks in certain locations, including emergency access issues. These must be taken into consideration in a meaningful way in determining final valve locations.

⁸¹ Trans Mountain PowerPoint presentation, Socio-Economic Effects Monitoring Plan, June/July 2015; Trans Mountain Socio-Economic Monitoring Plan (SEEMP) Workshop Summary Report for Distribution to Participants, July 14, 2015. Received December 11, 2015 [note: not in evidence].

⁸² Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 59; Trans Mountain Response to Township of Langley IR No. 2, Exhibit [A4H8T4](#) at p. 47; Trans Mountain Response to RDFFG and Village of Valemount IR No. 1, Exhibit [A3Y3Q1](#) at p. 16.

⁸³ Trans Mountain Application Volume 4A, Project Design and Execution – Engineering, Exhibit [A3S0Y8](#) at p. 52.

117. The Local Governments submit that in advance of final design approval by the Board:
- a. Trans Mountain should be required to clearly identify the locations of valves to be placed in each local government jurisdiction and submit these locations for local governments' as well as independent third party review and comment well in advance of submitting them for approval to the Board;⁸⁴
 - b. Where Trans Mountain is of the view that local governments' views on appropriate valve locations cannot be met, Trans Mountain will provide written explanation of its position, and will submit the local government's views and those of Trans Mountain to the Board for review. Furthermore, local governments should have the opportunity to make submissions directly to the Board on the proposed location, number and type of valve being proposed.
118. The FVRD submits that in addition to the table as referenced in Condition #34(a) and #35(a), valve locations should be mapped and shown in relation to the lateral extent of possible landslide zones in the Bridal Falls area. Given the risk of landslides in this area, there is increased potential for valves to be covered or inaccessible to emergency personnel if a landslide occurs, thus, knowing where valves have been placed in relation to a landslide zone is critical.⁸⁵ Information demonstrating that the risks to the pipeline associated with landslide hazards in the Bridal Falls area are managed to "As Low as Reasonable Practicable" levels based on valve locations as referenced in 34(e) and 35(e) must specifically address the information provided in the Quantitative Geohazard Assessment require by Condition #68 ("Quantitative Geohazard Frequency Assessment") regarding landslide hazards in the Bridal Falls areas (including the nature of geologic features, landslide frequency/probability, and lateral extent of slide zones).

⁸⁴ Since the close of intervenor's evidence in these proceedings, Trans Mountain has committed to work with the City of Abbotsford on the final agreement in valve locations: Trans Mountain Letter to Mayor Braun, City of Abbotsford, July 20, 2015. This commitment should be made applicable to all local governments and a condition of approval under Condition 34.

⁸⁵ FVRD Written Evidence Submission, Affidavit of Chris Wilson, Exhibit [A4L8W2](#) at para 13-14.

119. The Village of Valemount emphasizes that shut-off valves should be located at sites near the Village in order to allow timely and orderly closure of the pipeline should there be a leak or spill near the Village.

2. Joining Program

120. Condition #12 (“Joining Program”) should require that the quality assurance program for field welds and welding procedures be reviewed and evaluated by an independent third party.
121. In addition, all of the commitments made by Trans Mountain to Natural Resources Canada with respect to pipeline integrity should be incorporated into this Condition.⁸⁶

3. Inspection Reports

122. The inspection reports that are to be filed as part of Condition #133 (“Baseline inspections”) must be made publicly available on the NEB website. If there is an abnormality in the inspection reports, Trans Mountain should be required to contact the local government in which the abnormality is located to communicate what the issue is, where it is, and what steps Trans Mountain is taking to resolve the problem.

4. Conditions must ensure adequate assessment of geohazard risks

123. It is the FVRD’s position that Condition #68 (“Quantitative Geohazard Frequency Assessment”) should specify that the quantitative geohazard assessment for the Bridal Falls area in particular should address the following:
- a. The assessment must identify the nature and characteristics of the geotechnical features called the Timber Camp linears and Bridal Falls escarpment so that a clear understanding of the risk associated with these features can be developed and communicated. Previous reviews have indicated that these features may present the potential for catastrophic landslide hazards;
 - b. The assessment must identify the probability or frequency of occurrence of catastrophic and localized landslides associated with these features so that a clear understanding of the risk can be developed and communicated.

⁸⁶ Natural Resources Canada Written Evidence Submission, Exhibit [A4Q0V2](#) at p. 21.

c. The assessment must map the lateral (i.e. side to side) extent of the potential landslide area associated with each of these features. Given the significant risk involved, the lateral extent should be determined based on site-specific technical evaluation and potentially failure modelling by qualified professionals. It would be helpful if the run out path of potential landslide scenarios is also provided.

124. Condition #69 (“Risk Management Plan”) should specifically address, in a site-specific manner, the landslide risk in the Bridal Falls area including the frequency/probability of slope failures and the lateral extent of the potential failures. The location of any valves intended to reduce the Loss of Containment resulting from a slide event must be shown in relation to the lateral extent of landslide zones.
125. Furthermore, pipe depth and cover and any other mitigation measures proposed to reduce risk associated with landslides in this area, must be specifically assessed in relation to the information provided in the Quantitative Geohazard Assessment (i.e. the nature of geologic features, landslide frequency/probability, and lateral extent of slide zones).
126. The Local Governments submit that Conditions #68 to 72 should be subject to NEB approval with input from local government authorities.

B. General Environmental Protection Plans and Monitoring

127. Condition #55 (“Access Management Plans”) inextricably involves and is contingent upon local government bylaws, staff resources and emergency responders and as such, this condition must be developed in conjunction with local governments.
128. The Local Governments acknowledge that the NEB has amended Conditions #62 and 63 (“Facilities and Pipeline Environmental Protection Plans (EPPs)”) to include local governments in Trans Mountain’s consultation summary. Further, Condition #63 (d) recognizes the importance of vulnerable aquifers along the pipeline route, which are of significant concern to the Local Governments.
129. However, the EPPs—which are to contain measures that directly impact local governments—are to be filed for approval just 90 days prior to construction. The conditions require Trans Mountain to list its mitigation measures and monitoring plans;

however, this does not provide assurance as to how the Board will determine whether these mitigation measures are adequate and what recourse local governments have if the listed measures and monitoring remain inadequate. There are no specifications as to what criteria must be monitored, under what timeline, and how monitoring is to be conducted.

130. For example, the TMEP will cross through eight municipal parks and trails in Abbotsford.⁸⁷ The statutory right of way and construction workspace will be up to 45 metres wide through Abbotsford's parks.⁸⁸ Trans Mountain has refused to agree to limit the construction footprint of the statutory right of way through Abbotsford's parks.⁸⁹ Site-specific mitigation measures for Abbotsford's park and trails are being identified by Trans Mountain during the detailed engineering and design phase and these measures are to be included in the Pipeline EPP.⁹⁰ As such, Abbotsford will not know the mitigation measures being proposed by Trans Mountain until 90 days prior to construction.
131. The Local Governments agree with Metro Vancouver's conclusion that the impacts, both immediate and ongoing, on the ecological integrity of impacted parks cannot be easily quantified, mitigated and ultimately compensated for without the detailed study, review, and discussion process that is lacking in the Application. Based upon the present Application and draft conditions, the TMEP would, if approved, create environmental harms that are not known, nor for which mitigation is planned, and it is not clear how such impacts can and will be meaningfully compensated for if necessary.⁹¹
132. The EPP Conditions require Trans Mountain to submit a summary of its consultation with government authorities but do not define what meaningful consultation entails. The Conditions provide broad discretion to Trans Mountain to voluntarily decide who to consult and how often, what consultation means, which issues it will choose to include in the plans and how it will address the issues raised during consultation.

⁸⁷ Trans Mountain Application Volume 5B ESA-Socio-Economic 10 of 16, Exhibit [A3S1S4](#) Table 5.4-3 at p. 11.

⁸⁸ Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 11.

⁸⁹ Trans Mountain Response to City of Abbotsford IR No. 1 Exhibit [A3X5Z2](#) at p. 11; Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 11.

⁹⁰ Trans Mountain Response to City of Abbotsford IR No. 1 Exhibit [A3X5Z2](#) at p. 11.

⁹¹ Metro Vancouver, Written Evidence Submission Final, Exhibit [A4L7Y3](#) at p. 49-50.

133. In February 2015, upon an information request by FVRD, Trans Mountain said it would “work with” Fraser Health Authority (FHA) regarding Project construction activities to identify resolutions to concerns about protection of drinking water supplies in the FVRD.⁹² Trans Mountain met with FHA and Vancouver Coastal Health Authority on January 28, 2013 for a two hour introductory meeting.⁹³ As noted by FHA, “It was a meeting to elicit concerns only. There was no offer to the health authorities to work with the proponent on the issues. Neither was there further follow up dialogue between the proponent’s consultants and the health authorities. The two hour introductory meeting was the extent of the consultation with Fraser Health and Vancouver Coastal Health”.⁹⁴ If Trans Mountain records that it has “worked with” FHA in its report to the Board, it is unclear how the Board will determine the adequacy of this level of consultation. The Local Governments submit that it is not at a level of adequacy to be considered meaningful consultation, and refer again to the need to enforce the consultation framework set out in para. 35 above.
134. The Board revised Condition #62 (“Facilities Environmental Protection Plan”) to omit reference to consultation with local government authorities, and omitted subclause (j) which required Trans Mountain to set measurable goals for reclamation plans. The Local Governments submit that this wording should be reinstated.
135. Condition #140 (“Post-construction environmental monitoring reports”) requires Trans Mountain to identify its proposed post-construction environmental monitoring measures. The Condition has been amended to reflect Trans Mountain’s proposal to conduct monitoring for only the first five years after construction, with reports being publicized in years 1, 3 and 5.⁹⁵ However, Trans Mountain has provided no justification for the arbitrary and selective monitoring in years 1, 3 and 5 which risks leaving harms during operations undetected.

⁹² Trans Mountain Response to FVRD IR No. 2, Exhibit [A4H8S0](#) at p. 40.

⁹³ FVRD IR No. 2 to Trans Mountain, Attachment #1 Health Authorities Guidance Document, Exhibit [A4G5K5](#) at p. 18.

⁹⁴ FVRD IR No. 2 to Trans Mountain, Attachment #1 Health Authorities Guidance Document, Exhibit [A4G5K5](#) at p. 18.

⁹⁵ Trans Mountain Application Volume 6A Environmental Compliance, Exhibit [A3S2S1](#) s. 9 at p. 32.

136. The Local Governments submit that this limited monitoring increases the risk that impacts during the first five years of operations and afterwards will go undetected without any apparent rational for enduring this increased risk.
137. The FVRD and the other Local Governments submit that at minimum, independent biological monitors (experienced with the local flora and fauna, including the species at risk that may be present) must be on site for work done within any environmentally sensitive areas including wetlands, riparian areas. The monitor(s) should be capable of requiring the appropriate action if needed to salvage, monitor, trap, isolate, or otherwise protect species from potential harm.
138. Further, the EPP Conditions should reflect Trans Mountain's commitment to cover the costs for third party inspection where municipalities and regional districts wish to hire their own independent consultants to monitor the environmental impacts of the TMEP during construction in their regions:

"TMEP hires many inspectors and consultants who are experts in their fields. This is in addition to the oversight provided by regulators including the National Energy Board, BC Oil and Gas Commission and the Ministry of Environment. Work must be completed to established regulations, codes, and standards. There are many levels of oversight into the process. If the Project is approved and municipalities and regional districts wish to hire their own consultants, TMEP will cover the costs for third party inspection as indicated during the IR commitment process".⁹⁶

C. Air Quality

139. The FVRD and the City of Abbotsford seek to amend the conditions pertaining to fugitive emissions, air quality, and greenhouse gases. Both governments acknowledge that the Board has recognized certain concerns with respect to these issues by adding conditions pertaining to greenhouse gases and making improvements to the air quality and fugitive emissions conditions.

⁹⁶ Since the close of intervenor's evidence in this proceeding, Trans Mountain has advised: "If the Project is approved and municipalities and regional districts wish to hire their own consultants, TMEP will cover the costs for third party inspection as indicated during the IR commitment process" as recorded in: Trans Mountain Agricultural EPP Workshop Summary Report, September 10, 2015 at p. 3 (prepared by Trans Mountain and provided to FVRD). Note: Trans Mountain has not reflected this commitment in its commitment tracking table, despite asserting that the commitment was made during the IR process.

140. The Lower Fraser Valley Airshed is recognized by FVRD, Metro Vancouver, BC Ministry of Environment, Environment Canada and Port Metro Vancouver as being ‘volatile organic compound limited’, meaning that an overall reduction in VOCs is needed in order to reduce ground-level ozone formation and concentrations in the airshed.⁹⁷ The predicted increase in VOC emissions from the TMEP would undermine FVRD’s efforts to reduce VOC emissions and ozone concentrations in the FVRD.⁹⁸ Moreover, ground-level ozone is one of the most high-profile, well-studied and significant criteria air contaminants in the Lower Fraser Valley Airshed. However, ozone was not included in the human health risk assessment of Trans Mountain’s Application.⁹⁹
141. The FVRD submits that the conditions of any approval should require Trans Mountain to participate in all of the air quality and action programs as requested by Port Metro Vancouver, including the EcoAction Program to marine carriers calling at Westridge Marine Terminal that sets goals for air emissions reductions for ocean-going vessels that enter the port:
- “We expect our tenants and customers to participate in and support these programs and to demonstrate a commitment to continuous improvement of their environmental performance. Port Metro Vancouver expects that Trans Mountain will participate in these programs and will promote the EcoAction Program to marine carriers calling at Westridge Marine Terminal that sets goals for air emissions reductions for ocean-going vessels that enter our port and rewards those that excel in environmental stewardship”.¹⁰⁰
142. The EcoAction Program was developed by Port Metro Vancouver and promotes emission reduction measures that exceed the current North American Emission Control Area (NA-ECA) requirements adopted under the International Maritime Organization, while vessels operate within Port Metro Vancouver’s jurisdiction. Similar to local government bylaws, the Program is another example of local authorities’ expertise in setting standards for local air quality needs and conditions that corporations such as Trans Mountain who operate in these jurisdictions are expected to abide by.

⁹⁷ FVRD Written Evidence, Affidavit of Rebecca Abernethy, Exhibit [A4L8W6](#) at para 6 and Exhibit D to R. Abernethy Affidavit, Exhibit [A4L8X0](#).

⁹⁸ FVRD Written Evidence, Affidavit of Rebecca Abernethy, Exhibit [A4L8W6](#) at para 14.

⁹⁹ FVRD Written Evidence, Affidavit of Rebecca Abernethy, Exhibit [A4L8W6](#) at para 10.

¹⁰⁰ Port Metro Vancouver Written Evidence, Exhibit [A4L6Q7](#) at p. 3.

143. While Trans Mountain has committed to not burn slash anywhere in the Lower Fraser Valley, the FVRD requests that this commitment be extended to the entire FVRD, including the Coquihalla region and not solely within the Fraser Valley.¹⁰¹ With the Coquihalla region's mountains limiting pollutants from dispersing horizontally and a thermal inversion limiting pollutants from mixing vertically, the conditions are ideal for trapping pollutants in the region.¹⁰²
144. As indicated by FVRD's Environmental Services Coordinator and air quality specialist:
"The FVRD is concerned that evaluation of actual health effects due to potential for increased ozone concentrations from the TMEP have not been completed. Ground-level ozone is one of the most high-profile, well-studied and significant criteria air contaminants in the Lower Fraser Valley Airshed. Yet, ozone was not included in the human health risk assessment of Trans Mountain's Application (Response to FVRD IR No. 1.22(a), Filing ID A3Y2K7)."¹⁰³
145. The FVRD recognizes and appreciates that the Board has improved the air quality-related conditions by, for example, adding Condition #23, including diesel particulate matter and speciated PM_{2.5} (#19), reduced visibility (#23), odour (#47), and adding (a) and (c) to Condition #54. However, the FVRD requests the following further amendments:
- a. Include the requirement for monitoring of benzene, toluene, ethylbenzene and xylenes (BTEX)¹⁰⁴;
 - b. Require Trans Mountain to fund and provide mobile monitoring units to allow monitoring in real-time of speciated VOCs and particulate matter during an emergency event¹⁰⁵;
 - c. Reinstate the words "to reduce particulate matter emissions" into Condition #19(f) and reinstate the list of specific government authorities that Trans Mountain is required to consult under (j) and add the Fraser Health Authority to this list. The FVRD requests that this specific list be added to all of the air quality-related conditions.

¹⁰¹ Trans Mountain Response to FVRD IR No. 1, Exhibit [A3Y2K7](#) at p. 14.

¹⁰² FVRD Written Evidence, Exhibit D to R. Abernethy Affidavit, Exhibit [A4L8X0](#) at p. 7.

¹⁰³ FVRD Written Evidence, Affidavit of Rebecca Abernethy, Exhibit [A4L8W6](#)

¹⁰⁴ FVRD Written Evidence, Affidavit of Rebecca Abernethy, Exhibit [A4L8W6](#)

¹⁰⁵ FVRD Written Evidence, Affidavit of Rebecca Abernethy, Exhibit [A4L8W6](#)

d. Amend Condition #23(d) to include the requirement that Trans Mountain monitor for diesel particulate matter and speciation of PM_{2.5}. This will make this condition consistent with Condition #19. Diesel particulate matter has been shown to be the dominant contributor to lifetime cancer risk in the Lower Fraser Valley and FVRD from air pollution as indicated in a 2007 Lower Fraser Valley Air Toxics Emission Inventory and Health Risk Assessment.

e. Amend Condition #48(b) to clearly specify that quantification of fugitive emissions be completed; (c) should include reporting frequency; and subclauses (f) and (g) of Condition #47 should be included in Condition #48.

f. Condition #54(d) should include procedures for the frequency of inspection for identifying leaks or equipment malfunctions during operations, as well as the notification times by Trans Mountain to local government when a leak or malfunction occurs.

g. Condition #95 should include the methods and schedule of monitoring of air emissions during construction.

h. The Board should outline specified, regular intervals by which Trans Mountain is required to assess GHG emissions (Condition #106). Further, the FVRD submits that Condition #107 should be amended to require a GHG offset plan for operations as well as construction.

i. Require that all of the air quality-related management plans be submitted at least 6 months prior to commencing construction.

146. In addition, the FVRD disagrees with Trans Mountain's assertion that it has "addressed the concerns raised to date by the Lower Fraser Valley Air Quality Coordinating Committee (LFVAQCC)"¹⁰⁶ and the following statements by Trans Mountain which misconstrues the facts about the LFVAQCC's involvement in this process to date:

¹⁰⁶ Trans Mountain Response to NEB IR No. 6, Exhibit [A4R614](#) at p. 18.

a. “Trans Mountain submitted its draft Work Plan for the updated CMAQ modelling to the LFVAQCC members for their review and comments (Filing ID A4L8A5) and the LFVAQCC declined to provide any comments despite an offer by RWDI to extend the comment period for input and meet face-to-face with the LFVAQCC members again”¹⁰⁷

b. “Trans Mountain provided substantive responses to LFVAQCC on air quality matters in letters dated November 24, 2014, April 27, 2015 and May 26, 2015. Trans Mountain’s focus has been to address the LFVAQCC’s concerns and answer questions related to the Project irrespective of whether it is required for the NEB’s regulatory review process. Despite commitments from Trans Mountain to consult and review comments on the draft work plan for the updated CMAQ modelling, the LFVAQCC decided not to consult after all, and, therefore, the updated CMAQ modelling proceeded without their involvement.”¹⁰⁸

147. Trans Mountain has not addressed the concerns of the LFVAQCC. Moreover, the LFVAQCC did not “decline to provide any comments” and did not “decide not to consult after all”. In fact, Mr. Roger Quan sent a letter to Trans Mountain dated April 17, 2015, which was written on behalf of Environment Canada, FVRD, Port Metro Vancouver and Metro Vancouver.¹⁰⁹ In this letter, Mr. Quan identifies the LFVAQCC’s concerns respecting the insufficient amount of time to develop and review the modelling plan and establish emission scenarios and cumulative cases. Trans Mountain developed a model plan without the LFVAQCC’s input from the outset. As indicated in the letter, the LFVAQCC encouraged Trans Mountain to collaborate with the LFVAQCC in a meaningful consultative fashion to establish the scope, methodology, meteorological and emissions scenarios for carrying out the modelling.¹¹⁰ This consultation did not occur.

148. Trans Mountain’s states that more details of the consultation process between the LFVAQCC and Trans Mountain are provided in their correspondence as Attachments 1

¹⁰⁷ B413-2 Trans Mountain Response to NEB IR No. 6, Exhibit [A4R6I4](#) at p. 18-19.

¹⁰⁸ Trans Mountain Revised Final Argument (clean), Exhibit [A4W6L8](#) at p. 249.

¹⁰⁹ Metro Vancouver Written Evidence Submission, Exhibit 19B Letter on behalf of LFVAQCC to RWDI re TMX CMAQ Modelling 2015 Apr 17, Exhibit [A4L8A6](#).

¹¹⁰ Metro Vancouver Written Evidence Submission, Exhibit 19B Letter on behalf of LFVAQCC to RWDI re TMX CMAQ Modelling 2015 Apr 17, Exhibit [A4L8A6](#) at p. 2.

and 2 of Section 40.2 of the Reply Evidence.¹¹¹ However, s. 40.2 of the Reply Evidence refers to First Nation Specific Responses and does not contain correspondence between LFVAQCC and Trans Mountain.

D. Water Quality and Watercourses

149. The Local Governments urge the Board to require Trans Mountain to implement the most stringent, environmentally prudent, and precautionary measures to protect local drinking water supplies from impacts during construction or from a spill or leak.
150. Conditions #80 (“Water well inventory”) is insufficient because it merely requires Trans Mountain to gather information about water wells, for no apparent purpose other than to provide a repository of data. There is no requirement that Trans Mountain proactively act on this information by collecting necessary baseline data in order to determine the impacts it has on water well quality, and implement subsequent mitigation measures to address these potential impacts.
151. Condition #81 (“Consultation reports—protection of municipal water sources”) omits regional districts, which operate water systems that draw upon both ground and surface water that could be impacted by the project.
152. The Local Governments submit that a spill response scenario should be developed in consultation with local governments and for approval by the NEB for leaks and ruptures within a groundwater aquifer.
153. There needs to be a mechanism for local government concerns to be received and acted on by the NEB on a priority basis if drinking water concerns are not adequately addressed by Trans Mountain. An annual consultation self-report is inadequate, particularly given that modern day corporations and local governments operate using real-time data. The Local Governments submit that Trans Mountain be required to fund and operate an online, accessible database of issues related specifically to drinking water (aquifers, groundwater, and well water supplies) that the NEB and local governments can access at any time to input and track concerns.

¹¹¹ Trans Mountain Revised Final Argument (clean), Exhibit [A4W6L8](#) at p. 250, footnote #773.

154. The Township of Langley has expressed its concerns in this proceeding about the lack of details regarding Trans Mountain's hydrogeological assessment and mitigation measures pertaining to Langley's water sources, stating that the Township relies heavily on groundwater for agricultural, commercial, industrial and residential uses. Approximately 80% of the Township of Langley's water supply comes from municipal and private wells.¹¹²
155. In response, Trans Mountain said it will "test and sample wells 10 m or less in depth 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."¹¹³ Trans Mountain has, however, provided no scientific or empirical basis for the assertion that the impacts of pipeline construction are unlikely to extend to a depth greater than 10 m.
156. Moreover, Trans Mountain has provided no basis for the inherent proposition that risk should be monitored with reference to that arbitrary standard of "likely" impacts as opposed to, for example the more defensible and accepted Risk = Hazard x Consequences standard described by the City of Vancouver's expert Dr. Etkin.¹¹⁴ Not only probability but severity of incident must be considered in determining risk mitigation strategies such as monitoring. The Township of Langley bears the risk of Trans Mountain under-estimating the risk of impact to the Township's water supply. This is also supported by the expert groundwater report by Piteau Associates:

"The Trans Mountain Response to Shxw'ōwhámel FN IR No. 2 (Exhibit B317-30, Filing Number A4H9CB) indicated that a hydrogeological investigation would be completed if "...groundwater impacts are suspected." However, considering that the pipeline is buried over a vulnerable aquifer, groundwater impacts should automatically be suspected and a hydrogeological investigation conducted, if the pipeline leaks. Some clarity is required on this issue, including the specifics of the hydrogeological investigation such as (but not limited to): monitoring well locations relative to the leak for determining groundwater flow directions and for

¹¹² Township of Langley Information Request No. 2 to Trans Mountain, Exhibit [A4G5V6](#) at p. 9; Township of Langley Written Evidence, Affidavit of Asher Rizvi, Exhibit [A4L7R8](#) at para 4.

¹¹³ Trans Mountain Response to Langley IR No. 2 Motion, Exhibit [A4J5I5](#) at p. 3.

¹¹⁴ City of Vancouver, Written Evidence Submission, Appendix 22, Exhibit [A4L7Y0](#) at p. 18; See also: Tsleil-Waututh Nation, Written Evidence Submission, Volume 5 Tab 4A Appendix 1 Assessment of Spill Risk Report, Exhibit [A4L6A6](#).

characterizing the spill; and well screen completion intervals to characterize the vertical distribution of any contamination.

In the original submission, Trans Mountain included a series of spill scenarios at a series of specific locations along the pipeline alignment, which suggests that spill response is being dealt with systematically and considering all conditions. However, none of the spill response scenarios included a leak or rupture within a groundwater aquifer. Considering that the pipeline is routed through groundwater aquifers that supply drinking water throughout the Fraser Valley, this omission suggests that the risk of groundwater contamination is taken lightly.¹¹⁵

157. Trans Mountain is self-selecting the baseline measurement without providing independent scientific justification as to how sampling only the shallowest, closest wells is the safest and most effective way to determine impacts from pipeline construction. The prudent approach based on the precautionary principle¹¹⁶ would be to collect baseline data from wells at varying depths, including depths beyond 10 metres in order to detect impacts from pipeline construction at the earliest phase.
158. Further, monitoring should also be occurring during pipeline operations as one means to detect impacts from a pipeline leak.¹¹⁷ Trans Mountain has made no commitment to monitor groundwater wells during pipeline operations. In response to Valemount & RDFFG's IR No. 1, Trans Mountain said it will test water well quality following construction if requested by a landowner and that if warranted, corrective measures will be determined in consultation with the landowner.¹¹⁸ The Local Governments submit that the precautionary principle and adaptive management require Trans Mountain to bear the onus of testing water well and groundwater quality during pipeline operations.
159. By not proactively testing water well quality prior to construction to establish baseline water quality information, and by shifting the onus of when testing may be warranted on to individual landowners, Trans Mountain abrogates its duties to minimize damage

¹¹⁵ Shxw'owhamel First Nation Written Evidence, Piteau Groundwater Report Part 1, Exhibit [A4Q1A7](#) at p. 22.

¹¹⁶ See *CEEA 2012*: s. 4. (1) The purposes of this Act are... (b) to ensure that designated projects that require the exercise of a power or performance of a duty or function by a federal authority under any Act of Parliament other than this Act to be carried out, **are considered in a careful and precautionary manner to avoid significant adverse environmental effects**...(2) The Government of Canada, the Minister, the Agency, federal authorities and responsible authorities, in the administration of this Act, **must exercise their powers in a manner that protects the environment and human health and applies the precautionary principle**.

¹¹⁷ See, e.g. Coldwater Indian Band Written Evidence, Appendix C - Part 1 of 2 Pages 1 to 171 - BC Groundwater Hydrogeologic Overview, Exhibit [A4Q0W9](#) at p. 7, 16; and Shxw'owhamel First Nation Written Evidence, Piteau Groundwater Report Part 1, Exhibit [A4Q1A7](#) at p. 22.

¹¹⁸ Trans Mountain Response to RDFFG and Village of Valemount IR No. 1, Exhibit [A3Y3Q1](#), at p. 11.

caused by the pipeline and provide adequate mitigation measures for impacts to local government's drinking water supply. Local residents should not be relied upon by Trans Mountain to be an early detection mechanism for impacts from the TMEP operations. Citizens must be protected from impacts through a pro-active monitoring program carried out at Trans Mountain's cost.

160. The Local Governments recommend that the NEB require that Trans Mountain abide by the following parameters when establishing a groundwater and water well monitoring program:
 - a. The monitoring wells must be representative (both in terms of water quality and water supply) of the private and municipal wells being used along the pipeline construction route;
 - b. The monitoring wells must represent the type of aquifer (confined, unconfined or deep or shallow aquifer) through which the pipeline will be excavated;
 - c. Baseline water levels and water quality should be established for each type of groundwater use and aquifer, and the impacts should be monitored on long-term basis for comparison purposes; and
 - d. The selection of sampling parameters must account for the type of impact to water, streams and rivers and to natural habitats which could occur from construction activity, equipment, wastewater release, etc. and other pollutants that are expected from construction related works.
161. This approach would account for the varying hydrogeological and environmental situations along the pipeline route, as opposed to Trans Mountain's approach of basing its monitoring on one particular depth of 10 metres, which may not provide useful or sufficient data for all of the hydrogeological conditions along the pipeline route.
162. The Board is proposing that Trans Mountain submit a Watercourse Crossing Inventory (Condition #100), which would set out which crossing method Trans Mountain is proposing to use for various watercourse types and require design drawings for high sensitivity watercourses and proposed mitigation measures.

163. In response to questions from the City of Abbotsford on which drilling method Trans Mountain plans to use for crossing the Sumas River¹¹⁹, Trans Mountain has indicated that the horizontal directional drilling trenchless method is not feasible and that it is now assessing micro-tunnelling. If this alternative trenchless method is not feasible, then Trans Mountain will use an isolated trench method for the river, which poses greater risks of impacts to the City due to the large width of the river and the presence of the dyke system.¹²⁰ The City has requested that it be kept well informed of the studies that are being undertaken to determine the proposed method.
164. Condition #100 allows Trans Mountain to self-select the crossing method to be used and summarize how it will address any concerns raised but this does not provide recourse for the local governments who have informed concerns about the selected method and wish to obtain a third party review. The Condition should include such provisions.
165. In addition, Condition #100 was revised by the Board to omit subclause (e) regarding consultation requirements for watercourse crossings. The Local Governments submit that this subclause should be reinstated.

E. Wetlands and Riparian Areas

166. Condition #52 (“Wetland Survey and Mitigation Plan”), 79 (“Riparian Habitat Management Plan”) and 143 (“Wetland Reclamation Evaluation and Offset Plan”) pertain to impacts to wetlands and riparian areas. All of these conditions should include the requirement to provide the plans to local government authorities for their input prior to the NEB’s approval. Condition #52 requires a monitoring plan for wetlands for the first 5 years of operations. The BC Wildlife Federation recommends clarifying the set of metrics to be used for measuring wetland health in order to inform the methodology required to gather sufficient baseline data using well established protocols for survey work.¹²¹ These should include specific targets to measure wetland health and functional

¹¹⁹ See: City of Abbotsford IR No. 1 to Trans Mountain, Exhibit [A3W7W0](#) at p. 19; City of Abbotsford Information Request No. 2 to Trans Mountain, Exhibit [A4G5Y4](#) at p. 9; City of Abbotsford Information Request No. 2c to Trans Mountain, Exhibit [A4K3Z3](#) at p. 3.

¹²⁰ Trans Mountain Response to City of Abbotsford IR No. 2c, Exhibit [A4K5A6](#) at p. 2.

¹²¹ BC Wildlife Federation, Written Evidence Submission, Exhibit [A4Q0W2](#) at p. 7.

capacity.¹²² The objectives and targets should include: water quality, water quantity, soil integrity, wildlife habitat, indicator species population and baseline vegetation. Future inventory work should assess the wetlands under the B.C. Classification approach.¹²³

167. The Local Governments support the positions taken by the Salmon River Enhancement Society, Friends of Ecological Reserves, and the BC Wildlife Federation that Trans Mountain should be required to bear the costs of conducting monitoring prior to construction for collecting baseline data and over the lifetime of operations. All wetlands, streams and other important ecological communities at risk of being impacted by new pipeline construction should be monitored pre and post-construction to ensure that the effects of the TMEP are determined and mitigated or compensated.
168. Trans Mountain has refused to commit to recognizing local governments' identification of riparian management zones, for example, in response to the Township of Langley's information request 2.14(a):
- a. "Will Trans Mountain recognize and adhere to the Township's identification of riparian management zones?"
 - b. "Riparian Management Zones will be identified using the BC Riparian Management Area Guidebook (BC Ministry of Forests 1995) as outlined in the Forest and Range Practices Act. Trans Mountain will work with the Township of Langley to solidify riparian management zones and appropriate reclamation measures for these areas".¹²⁴
169. The Township of Langley acknowledges that while the BC Riparian Management Area Guidebook (RMA Guidebook) approach for designating "Riparian Management Zones" and the Streamside Protection Bylaw approach of identifying "Streamside Protection and Enhancement Development Permit Areas" differ, both processes produce similar results when applied to streams in the Township.
170. However, where local governments have bylaws and permitting requirements pertaining to riparian management zones (which have been identified by local governments based

¹²² BC Wildlife Federation, Written Evidence Submission, Exhibit [A4Q0W2](#) at p. 7.

¹²³ BC Wildlife Federation, Written Evidence Submission, Exhibit [A4Q0W2](#) at p. 7.

¹²⁴ Trans Mountain Response to Township of Langley IR No. 2, Exhibit [A4H8T4](#) at p. 30-31.

on their local expertise and knowledge), then Trans Mountain should be subject to these bylaws like any other contractor operating in local government jurisdiction. There is no evidence that such compliance would unlawfully interfere with the core of Trans Mountain's undertaking.

171. For example, consistent with the Streamside Protection Bylaw approach, the Township expects Trans Mountain to provide details with respect to restoration of the "Riparian Management Zone", including quantification of impacts, restoration works (e.g. planting) and development of a follow up monitoring program to ensure restoration works are functioning as intended. If portions of the "Riparian Management Zone" within the pipeline right-of-way must be permanently maintained (e.g. tree and shrub removal) for operational requirements (e.g. pipeline protection, access maintenance, aerial sightlines) that practice represents a permanent impact within the "Riparian Management Zone". Consistent with the Township's Streamside Protection Bylaw objectives, a plan to compensate for permanent loss of habitat functions within the "Riparian Management Zone" should be developed. Trans Mountain should retain the services of an independent, Qualified Environmental Professional familiar with the objectives of the Township's Streamside Protection Bylaw to address these items.

IV. Emergency Management and Response

A. Overview of submissions

172. Effective emergency response capacity, capability and plans are fundamental to any approval of the proposed TMEP. Trans Mountain has said that it will be relying on local government and agency first response organizations for prompt and effective emergency response.¹²⁵ In light of this, certain conditions must be in place to ensure effective emergency response measures are in place that do not place inappropriate burdens on local governments:

¹²⁵ See, for e.g. Trans Mountain Response to Langley IR No. 2, Exhibit [A3X6U7](#) at p. 11. In the event of an emergency, Trans Mountain has said it will have to rely on municipal first responders and municipal employees to enter into Unified Command, close roads, redirect traffic, order and manage evacuations, manage public transit and transportation-related infrastructure.

- a. Emergency response plans and documents must be submitted to the NEB for approval—the proponent cannot self-regulate with respect to emergency response;
- b. Emergency response plans and documents must be developed by the proponent with demonstrable and meaningful input from local government and emergency response organizations so that the true local conditions and capacity are developed and accounted for in the plans;
- c. All specialized training and equipment necessary for adequate spill response shall be provided by the proponent to local government and emergency response organizations at the proponent's expense.

B. Emergency response plans must be reviewed and approved by the Board as regulator

- 173. The draft Conditions do not provide specifications regarding the content of the required Emergency Management Program (“EMP”) nor do they require that the Emergency Management Program or the Emergency Response Plans which are integral to the EMP be filed “for approval” by the Board. The Local Governments submit that a comprehensive Emergency Management Program and Emergency Response Plans should be developed, independently reviewed and approved by the Board before the project is approved for construction and operation. Alternatively, the Board should impose a process for independent review, oversight and assessment of the EMP with input from local governments.
- 174. The RDFFG will use the CSA Standard Z1600 Emergency Management and Business Continuity as the benchmark standard to determine whether Trans Mountain's emergency plans are realistic and acceptable.

C. Consecutive spills in Abbotsford: an example of proponent's failures in response

- 175. The City of Abbotsford's evidence of past experience with spill response with the existing Trans Mountain pipeline highlights the potentially significant gap between the proponent's stated intentions with spill response, and actual on the ground response time

and performance. Fire Chief and Emergency Coordinator for the City of Abbotsford, Donald Beer, described in his affidavit the 2005 Ward Road spill in which Terasen Pipelines (Trans Mountain) Inc. staff were dispatched to odour complaints from local residents on more than one occasion. Trans Mountain staff were unable to locate the source of the odour. It was not until Abbotsford Fire Rescue Service (AFRS) were subsequently dispatched to the site that they discovered oil product in the creek, which was traced back to a fracture in the existing pipeline. Trans Mountain thereupon activated and Emergency Operation Center (EOC) in which AFRS participated to respond to the spill.¹²⁶

176. In this incident Trans Mountain relied on AFRS to detect the source of the oil spill, initially contain the pollutant, and participate in the EOC. As a result of this, once the incident was concluded, it was agreed between Trans Mountain and the City that the two organizations should undertake joint emergency preparedness exercises to be better prepared to respond to future incidents arising from Trans Mountain/Kinder Morgan infrastructure. Additional command training and table top exercises were planned for and established by Kinder Morgan. The City of Abbotsford participated as a partner during these training events.
177. However, despite these coordinated command training and table top exercises, the next time there was a spill from Kinder Morgan infrastructure within the City of Abbotsford, virtually none of the protocols for communication and emergency response that had been developed between the City and Kinder Morgan were actually carried out by Kinder Morgan employees.
178. On January 24, 2012 oil was accidentally released from Tank 121 at the Sumas Tank Farm. Kinder Morgan advised the City that approximately 500 barrels of oil (approximately 80,000 litres) was released that day. Several months prior to the 2012 Sumas Tank Farm Tank 121 release occurring, a tabletop emergency preparedness exercise had been conducted by Kinder Morgan and City of Abbotsford participated. However, when the Tank 121 release occurred, all the training and table top exercises for

¹²⁶ City of Abbotsford, Written Evidence Submission, Affidavit of Donald Beer, Exhibit [A4L6D3](#) at paras 12-17.

emergency response did not lead to proper notification of the City of Abbotsford as required to work as partners in emergency response.

179. The release was detected by residents in the area, who called 911 based on the odour. AFRS was the first to respond.
180. Kinder Morgan's operations and emergency response staff did not share immediate and accurate information with the City's emergency responders despite the fact that in the table top exercises the City had participated in, a requirement for such notification had been established as a protocol for emergency response. Instead, City staff were forced to rely on media information to know what was happening at the Tank Farm. The only reliable basic information about the incident was received several hours into the incident through the City making contact with the BC Ministry of Environment.
181. The City of Abbotsford Emergency Management and Emergency Services (Fire and Police) were first provided information about the release through Kinder Morgan's Manager, External Relations at the same time as information was shared with the news media.
182. Fire Chief Beer's observation was that the Kinder Morgan staff who were provided the training and table top exercises were not the same staff relied on with respect to the on ground emergency response to the Tank 121 release. A related observation is that the City of Abbotsford was not notified of the incident by Kinder Morgan despite the communication protocols established through the table top exercises.
183. This was particularly problematic because of the many complaints the City received from residents who were reporting serious concern and illnesses (complaints of headaches, nausea, breathing problems and even chest pain) arising from the strong petroleum odours.

D. Need for full-scale emergency response training exercises with local response organizations

184. Chief Beer attests that based upon his experience with the consecutive spills in Abbotsford described above, and the joint training and table top exercises engaged in between the City and the proponent, table top exercises are insufficient to ensure that

proper emergency response capacity and protocols are in place in the event of a rupture and spill.¹²⁷

185. This is supported by the evidence of Ginger Sherlock, Emergency Program Coordinator for the Township of Langley.¹²⁸ Based on her experience and training, Ms. Sherlock explains, in her affidavit, the important differences between discussion-based and operation-based exercises for emergency preparedness:

a. Discussion based exercises (also known as "table top exercises") focus on theorizing concept of operations, talking through a scenario and the steps taken by the different personnel positions and agencies engaged, and building functional and inter-agency awareness and understanding.

Key points of discussion based exercises include:

- i. The focus is on discussion between players;
- ii. Stress level is low;
- iii. There are few time constraints during exercise;
- iv. No equipment is used except for pens, papers, maps and plans;
- v. They are inexpensive to develop and implement; and
- vi. These are usually the first within a series of exercises conducted;

b. Operation based exercises (also known as "full-scale exercises") test the theories developed and reviewed through discussion-based exercises, by validating training, plans and procedures through deployment of personnel, equipment and other resources. The goal and focus is to have players (agencies) display a level of competency of specific tasks that are evaluated against established standards and metrics.

Key points of operation based exercises include:

¹²⁷ City of Abbotsford, Written Evidence Submission, Affidavit of Donald Beer, Exhibit [A4L6D3](#) at para. 27.

¹²⁸ See Township of Langley, Written Evidence Submission, Affidavit of Ginger Sherlock, Exhibit [A4L7S1](#) at paras. 5-9.

- i. They are used to validate training, resources, plans and procedures;
- ii. They are conducted within real time restrictions; creating higher stress;
- iii. They often identify gaps or weaknesses in emergency response plans;
- iv. They identify best practices (what is working well);
- v. They provide an opportunity for emergency response personnel to interact with other agencies with which they will need to interact in an emergency;
- vi. They improve the performance and competency of individuals;
- vii. They require more time, resources and funds than discussion-based exercises;
- viii. They follow discussion-based exercises.

186. Discussion-based exercises usually have supervisors and upper management attending, while functional or operation-based exercises will engage those personnel “on the ground” who are tasked to perform specific functions in an emergency. In Ms. Sherlock’s experience she has observed that even very well run discussion-based (also known as “table-top”) exercises may often not translate to better emergency response on the ground because the lessons learned and gaps identified through table top exercises are not transferred to operational protocols or taught to on the ground staff, leaving the very gaps and errors sought to be avoided through table-top exercises to be repeated during real events. As attested to by Chief Beer, this was Abbotsford’s experience.
187. Further, as explained in the District of West Vancouver’s written evidence, in order to be prepared to respond to a spill, emergency planners need to know what products are involved, the properties of those products and what risk these products pose to human health and the environment.¹²⁹

¹²⁹ District of West Vancouver Written Evidence Submission, Affidavit of Dorit Mason, Exhibit [A4L6L2](#) at para 3.3.

188. For this reason, Ms. Sherlock attests that a comprehensive emergency response exercise program includes the progression of both discussion-based exercises and operation-based exercises, to establish an agency's capability through validated concepts, tested functions, and staged operational activities. Discussion-based exercises are relatively inexpensive to develop and implement, whereas operation-based exercises require more time, resources and funds to both develop and implement. Drills can interrupt daily operations, even when staged and timed to not impact critical functions. However, such investment assures that all responsible agencies are:
- a. truly prepared with adequate procedures and authority to conduct the activities needed,
 - b. adequately trained to needed competency levels,
 - c. have the right equipment to perform their duties, and
 - d. can communicate and work collaboratively with other agencies through a major event.
189. In order to be prepared to participate in emergency response related to the TMEP, Ms. Sherlock attests that Township of Langley will require a dedicated, continuing and comprehensive joint exercise program with Trans Mountain which includes time, resources and funding to conduct training, discussion based and operation based exercises with local authorities. Other local governments are in the same situation.
190. While the Board has recognized that full-scale emergency response exercises will be necessary, the proposed draft conditions do not provide sufficient regulatory control to ensure adequate emergency preparedness. The RDFFG and Valemount understand that the BC Oil and Gas Commission is developing an emergency exercise evaluation tool that will provide a basis for ensuring that credible discussion-based exercises, table-top exercises and other associated emergency response drills are meeting the expectations and requirements of stakeholders and regulators. Once completed, this tool may be a valuable tool to measure compliance, and the RDFFG and Valemount recommend that

the NEB consider requiring Trans Mountain to incorporate this evaluation tool into its emergency response plans.

191. The City of Abbotsford submits that Condition #116 (Pre-operations full-scale emergency response exercises) must at least include a credible worst case release at Sumas Terminal and McDermott Pump Station and Condition #136 (Full-scale emergency response exercises during operations) include a tank fire scenario at the Sumas Terminal, particularly in light of previous emergency response failures by Kinder Morgan in the City's jurisdiction.
192. The FVRD submits that Condition #136 must at least include a full bore rupture response exercise into the Fraser River between Hope and Popkum as a result of a land slip. In the alternative, the FVRD proposes a full bore rupture exercise south of the Coquihalla summit (within FVRD jurisdiction) to test the region's capabilities, as the Coquihalla River flows into the Fraser River.
193. The Local Governments jointly further submit that there should be an option for municipalities and regional districts not included in the geographical locations of the exercises in Condition #136 to have the option to participate in the exercises provided for under that condition and recover their costs of participation from the proponent.
194. The Board has left it to Trans Mountain to determine for itself what and whether operation-based exercises will be done. Condition #119 ("Emergency Preparedness and Response Exercise and Training Program") neither makes specific requirements with respect to full scale operation based exercises, nor provides that the plans that Trans Mountain does develop will be subject to review and approval by the Board. The Local Governments submit that this is not a sufficient level of independent regulatory oversight, and leaves the real risk of inadequate emergency response.

E. Local governments and response agencies require full notice of Incident Command and response capacity

195. The experience of the City of Abbotsford illustrates the importance of local emergency responders having advance and accurate knowledge of how many Kinder Morgan personnel capable of taking on Incident Command and trained in fire suppression are

stationed within the City.¹³⁰ As such, the Local Governments request that Condition #90 (“Project Organizational Structure”) be amended to require Trans Mountain to submit a fulsome chart showing:

- a. how many of the 92 people are trained to take over Incident Command,
- b. in which location are they stationed, and
- c. how many operations and field personnel in each location are trained in basic fire suppression.

196. The chart should be updated on an annual basis during operations and submitted to applicable local governments and emergency first responders at the same time it is submitted to the NEB.
197. It is critical that local governments also have input into the Unified Command structure to ensure that local governments’ concerns, needs and requirements are appropriately considered and acted upon.¹³¹ The community’s economic, cultural and psycho-social needs must also be considered during a spill.¹³²
198. Trans Mountain should identify the location and contents of its OSCAR units and how they are accessed as part of Condition #123 (“Emergency Response Plan for the pipeline and the Edmonton, Sumas and Burnaby Terminals”). Fire Chief Don Beer explained how Abbotsford Fire Rescue Service (AFRS) has partnered with CP Rail and houses CP Rail’s Foam Fire Fighting trailer which is capable of delivery of firefighting foam.¹³³ AFRS has access to the CP Rail Trailer on a 24/7 basis for any emergency within the City. This is an example of an effective partnership between the municipality and industry to work toward effective emergency prevention and response in Abbotsford. Condition #123 should require that Trans Mountain form a similar partnership with the

¹³⁰ City of Abbotsford, Written Evidence Submission, Affidavit of Donald Beer, Exhibit [A4L6D3](#) at p. 4-5

¹³¹ District of West Vancouver Written Evidence Submission, Affidavit of Dorit Mason, Exhibit [A4L6L2](#) at paras 6.2, 6.6.

¹³² District of West Vancouver Written Evidence Submission, Affidavit of Dorit Mason, Exhibit [A4L6L2](#) at para 4.2.

¹³³ City of Abbotsford, Written Evidence Submission, Affidavit of Donald Beer, Exhibit [A4L6D3](#) at para 7.

AFRS and the OSCAR unit to be located in Abbotsford (reflecting the proponent's recent commitment regarding location).

F. Emergency Response Plans must ensure that all local response capacity is accounted for

199. Condition #119 ("Emergency Preparedness and Response Exercise and Training Program") is insufficient because it refers only to Trans Mountain's emergency response capacity when it should require a summary of local and regional emergency first responder capacity, an analysis of the gaps in local emergency first responder skills and available equipment relative to pipeline-related emergencies, training plans for local emergency first responders, and how it will pay for this training or equipment.
200. Many first responders in rural areas such as electoral area districts do not have the training or equipment to respond to pipeline emergencies. For example, emergency management and first response spill capacity within the FFGRD (which has a volunteer fire department) does not exist as a standalone entity which can provide adequate or effective surveillance, notification and spill response. In FVRD, the District of Hope Fire Department is not equipped or trained for pipeline/dangerous goods emergency response, and there are no fire departments adjacent to this region with this capacity.¹³⁴ There is no local government fire protection for a 45 kilometre stretch of land in Electoral Area B between Othello Fire Protection Area and the Coquihalla summit.¹³⁵ The Popkum Volunteer Fire Department is also not equipped or trained for pipeline/dangerous goods emergency response and these services are outside the scope of the department as mandated by the FVRD's bylaws.¹³⁶
201. Similarly, the City of Abbotsford does not have access to emergency response equipment that would be required to respond to a spill from the TMEP or the Sumas Tank Farm or the McDermott Pump Station, all of which lie in Abbotsford's boundaries.¹³⁷

G. Need for responsive and meaningful consultation with local governments in development of emergency response plans

¹³⁴ FVRD Written Evidence Submission, Affidavit of Chris Wilson, Exhibit [A4L8W2](#) at para 8. ▼

¹³⁵ FVRD Written Evidence Submission, Affidavit of Chris Wilson, Exhibit [A4L8W2](#) at para 9.

¹³⁶ FVRD Written Evidence Submission, Affidavit of Chris Wilson, Exhibit [A4L8W2](#) at paras 5, 8.

¹³⁷ City of Abbotsford, Written Evidence Submission, Affidavit of Donald Beer, Exhibit [A4L6D3](#)

202. The Board's draft conditions recognize the need for the proponent to consult with local governments (although notably, regional districts are omitted from the conditions, despite being implicated in emergency response in electoral areas outside of municipal boundaries). However, the draft conditions allow the proponent to self-report on the consultation efforts, and provide no mechanism for independent regulatory oversight over whether the content of emergency response plans is actually aligned with local government capacity, geography, and realities.
203. Condition #88 ("Consultation on improvements to Trans Mountain's Emergency Management Program") should be amended to include regional districts and local emergency first responders in the list of bodies that Trans Mountain is required to consult. Trans Mountain should be required to have a terms of reference with each local government and local first responder organization that defines the meaning of "consultation" in accordance with the elements agreed upon by Trans Mountain in response to the City of Abbotsford's information request (cited in introductory section of these submissions).
204. Condition #117 ("Reporting on improvements to Trans Mountain's Emergency Management Program") is inadequate because it allows Trans Mountain to self-report its consultation efforts. Trans Mountain should be required to share their consultation report with the local governments prior to submission to the Board and obtain the local governments' input or approval on this report.
205. Conditions #121 (Evacuation Plans), 123 (Emergency Response Plan for the pipeline and the Edmonton, Sumas and Burnaby Terminals), and 125 (SCADA and leak detection system design) should be submitted to the NEB for approval, with the opportunity for local governments to provide submissions on these plans, and the obligation upon the proponent to make the plans responsive to local government input.
206. Also note that, while specifically referencing municipalities and first responders, Condition #121 omits regional districts. This omission should be remedied.
207. Condition #123 (g) must be strengthened to require Trans Mountain to coordinate with provincial and municipal disaster response plans, and not merely provide a discussion as

to how a plan may allow for such coordination. The independent third party report should be submitted publicly and be subject to NEB and local government input, including health authorities.

H. Costs of adequate joint emergency response training must be borne by the proponent

208. For effective and comprehensive emergency response, it must be a condition of approval that local governments and response organizations are included in comprehensive emergency preparedness and training exercises. At the same time, these organizations must be compensated for the additional draw on resources that such training and exercises will cause.

209. The costs to local governments and emergency first responders to participate in ongoing training during operations was not considered by Trans Mountain in its Application:

“Effects of the Project on emergency, protective and social services during the operations phase (under normal operations) were considered for inclusion in this assessment, but were scoped out due to the understanding that Trans Mountain’s current emergency response regime will not change or need to change to accommodate the expanded operating system”.¹³⁸

210. The proponent has said that it will cover the costs associated with its instruction in emergency response exercises, continuing education programs and consultation meetings but will not cover the cost of attendance, such as responder wages, benefits and employment costs.¹³⁹ However, in order to be prepared to participate in emergency response related to the TMEP, local governments will require a dedicated, continuing and comprehensive joint exercise program with Trans Mountain which includes time, resources and funding to conduct training, discussion based and operation based exercises with local authorities.¹⁴⁰

211. The diluted bitumen transported and stored by the TMEP poses an extra-ordinary risk and demand on emergency preparedness inside the host local communities. Preparation for rupture and spill of the nature associated with Trans Mountain’s facilities is not something the host communities would be required to undertake, but for the presence of

¹³⁸ Trans Mountain Application, Volume 5B, ESA 13 of 16 Socio-Economic, Exhibit [A3S1S7](#) at p. 121.

¹³⁹ See, e.g., Trans Mountain Response to Langley IR No. 2, Exhibit [A3X6U7](#) at p. 12.

¹⁴⁰ See Township of Langley, Written Evidence Submission, Affidavit of Ginger Sherlock, Exhibit [A4L7S1](#) at para 9.

Trans Mountain's operations in their communities. The Local Governments submit that Trans Mountain should be required to pay the full cost of the extra-ordinary expenses incurred to adequately train local government emergency responders on the same basis that other residents and developers are required to compensate for extra-ordinary draws upon local government staff time and resources.

212. For example, like many local governments, when Township of Langley employees are required to attend to residential or commercial development projects and perform tasks not within the scope of Langley's duties, Langley must, in the normal course of municipal budgeting and finance, pay for the employee's time on a cost recovery basis.¹⁴¹ Residents and developers are then invoiced for the employee's time to recover these costs.¹⁴² Similarly, local governments would be performing tasks for Kinder Morgan or Trans Mountain infrastructure emergencies or training that are not within their scope of duties, and therefore must operate on a cost recovery basis for these tasks. As such, a condition of approval should be that the proponent will, upon receipt of invoice from local government and responder organization for the employment costs incurred by Langley to attend training and consultation meetings and for emergency response coordination, pay those costs as invoiced.
213. Both the Emergency Management Program and the Emergency Response Plans should be required by the Board to include mechanisms (for approval by the Board) to ensure that local government costs that would not arise by for the TMEP will be compensated by the proponent: see Conditions # 87(Emergency Response Plan for construction), 116 (Pre-operations full-scale emergency response exercises), 119 (Emergency Preparedness and Response Exercise and Training Program), 120 (Notification and reporting on emergency response exercises), and 136 (Full-scale emergency response exercises during operations) should be amended to require Trans Mountain to identify for approval how the proponent will ensure adequate training at its own expense of the local government emergency first response organizations.

I. NEB must impose a rule for system shut down when leak cannot be located

¹⁴¹ Township of Langley, Written Evidence Submission, Affidavit of Terry Veer, Exhibit [A4L7R7](#) at para 7.

¹⁴² Township of Langley, Written Evidence Submission, Affidavit of Terry Veer, Exhibit [A4L7R7](#) at para 8.

214. The Local Governments also submit that the Board must itself regulate when the proponent must initiate a partial system shut down in the face of an untraceable but persistent apparent leak. Condition #125 (SCADA and leak detection system design) purports to regulate this sort of event, but imposes no actual requirements that would protect the environment and minimize the scale of emergency response required.
215. Abbotsford's experience with the spill into the creek at Ward Road demonstrates that independent regulatory (rather than self-regulatory) measures are needed in this regard. Despite receiving five odour complaints in the same vicinity around the same time period, Terasen (Trans Mountain)'s Control Centre Operator did not shut down the pipeline until 12:10 pm on July 15, 2005, a full seven days after the first complaint was received and after an employee failed to detect the source of the leak during a visual examination.¹⁴³ By that time a 210 cubic metre spill had emerged from the Line 1 pipeline, entering a watercourse, and resulting in the necessary removal of 5150 cubic metres of organic peat soil from the wetlands to help remediate the damage from the spill.
216. After investigating the significant delay by Terasen (Trans Mountain) response time to a pipeline leak, the Transportation Safety Board of Canada stated: "Terasen's [Trans Mountain] response and identification of the leak was delayed by a number of factors that were within the company's capacity to manage and remediate."¹⁴⁴
217. The NEB should specify and regulate what the acceptable given time period before controlled shut down is. The Condition should be for approval, and it should not leave it to the proponent to determine when it will perform a controlled shutdown of the operation when a leak cannot be ruled out after initial indication.
218. Equipment should be in place to monitor air quality so that impacts to the community can be assessed and help to determine if evacuation or shelter-in-place response is

¹⁴³ City of Abbotsford, Written Evidence Submission, Exhibit A to D. Beer Affidavit, Exhibit [A4L6D4](#) at p. 4 and 15.

¹⁴⁴ City of Abbotsford, Written Evidence Submission, Exhibit A to D. Beer Affidavit, Exhibit [A4L6D4](#) at p. 5 and 15.

necessary.¹⁴⁵ Further, local governments require the capacity to immediately notify residents of air quality changes so that residents can take required action to protect themselves from hazards, particularly if they are vulnerable or sensitive to these hazards.

J. Conditions must ensure full compensation to local governments for ongoing spill related costs

219. The Emergency Management Program should include a provision to ensure full compensation to local governments for costs resulting from a spill. All emergency management costs directly associated with the response and recovery activities carried out by local governments to safeguard communities and the environment on behalf of the proponent should be fully compensated. The Local Governments are concerned:
- a. That neither the proponent nor the Board's draft conditions properly recognizes the full extent of the costs to local government that may arise from a spill; and
 - b. That the proponent has not made sufficient provision for compensation of the full costs arising from a spill.
220. In the event of a spill, local governments may incur significant costs to, for example, provide a safe, reliable drinking water source for residents until the supply is remediated or an alternative is sourced. For instance, the Fort Langley production well located at 88 Ave. and Salmon River would have to be shut down to undertake a risk assessment and evaluate the extent of the affected area; a long term water quality monitoring system would have to be set up and alternative water supply would need to be sourced for municipal water users.¹⁴⁶
221. As such, compensation should be provided to local governments which reflects the significant impacts and true costs to local authorities for planning, responding and recovering from a spill event.¹⁴⁷

¹⁴⁵ District of West Vancouver Written Evidence Submission, Affidavit of Dorit Mason, Exhibit [A4L6L2](#) at para 3.3.

¹⁴⁶ Township of Langley Written Evidence, Affidavit of Asher Rizvi, Exhibit [A4L7R8](#) at paras 8-12.

¹⁴⁷ District of West Vancouver Written Evidence Submission, Affidavit of Dorit Mason, Exhibit [A4L6L2](#) at para 6.13.

222. While Trans Mountain has sought to provide assurances that it will cover damages to third parties (including local governments) in the event of a spill and will also have the financial resources to cover these damages¹⁴⁸, evidence discloses that payable damages at law would not reflect the true socio-economic and environmental costs incurred by local governments:

“Based on these studies, spill cleanup costs range from \$3,746 to over \$17,082 per bbl and damage costs range from \$4,447 to \$27,526 per bbl.....As Kontovas et al. (2010 p. 4) state ‘...we further note that admissible claims cannot be paid in full, especially in the case of large spills...’ and Thebaud et al. (2005) found that compensation paid to claimants from the IOPCF in the case of six major oil spills represented between 5% and 62% of compensation claimed while Liu and Wirtz conclude that compensation costs represent only 2% of total damage costs.....The average spill clean-up cost per tonne spilled in North America is among the highest in the world and is over 1.5 times higher than the weighted global average (Vanem et al. 2008).

...

The TMEP insurance of \$750 million could provide sufficient coverage in the event of smaller pipeline leaks but may not fully compensate parties that incur losses from larger pipeline ruptures (Figure 6.3). In the case of the largest pipeline rupture of 25,160 bbl modeled in the TMEP application, the shortfall in compensation could total \$764 million for a \$1.5 billion pipeline spill, which would have to be covered by TMEP. Although TMEP is able to cover some damage liabilities, the maximum capacity of TMEP to cover compensation exceeding insurance coverage is unknown. A second concern is that the details of what will be compensated and how the value of damages requiring compensation will be determined is also unknown”.¹⁴⁹

V. Conclusion

223. The Board has proposed several draft conditions relevant to local governments that at this stage in the proceeding, the Board provisionally considers to be necessary and desirable in the public interest for addressing the environmental, socio-economic, and emergency management and response issues arising from the TMEP.¹⁵⁰
224. Several of these important conditions lack the requirement for independent third party oversight (including by the NEB) to ensure Trans Mountain is in compliance with its environmental, socio-economic and emergency management and response plans.

¹⁴⁸ See for e.g. Trans Mountain Response to City of Abbotsford IR No. 2, Exhibit [A4H729](#) at p. 39.

¹⁴⁹ Tsleil-Waututh Nation, Written Evidence Submission, Volume 5 Tab 4A Appendix 1 Assessment of Spill Risk Report, Exhibit [A4L6A6](#) at p. 135; 147.

¹⁵⁰ Conditions 2, 19, 20, 21, 22, 23, 26, 27, 29, 30, 41, 42, 45, 49, 50, 51, 52, 54, 56, 60, 63, 64, 147, 148.

225. Where Trans Mountain has committed to using independent third party monitors, there remains uncertainty as to who the monitor would report to, what qualifications the monitor is required to have, when monitoring would take place, and how local governments can access the monitoring data results and compel Trans Mountain to take action for impacts that are detected through monitoring to be occurring as a direct result of the TMEP.
226. In order to be effective and enforceable, monitoring plans should have measurable standards by which it can be determined what the mitigation for the damage should be. Without establishing requirements for the collection of baseline data and collection of data at reasonably frequent intervals, local governments cannot seek mitigation measures—and compensation where required—from Trans Mountain for the impacts that the data reveals.
227. The intent of mitigation measures is to eliminate, reduce or control adverse environmental effects and to require restitution for damages: “*mitigation measures*” means measures for the elimination, reduction or control of the adverse environmental effects of a designated project, and includes restitution for any damage to the environment caused by those effects through replacement, restoration, compensation or any other means (CEAA, 2012, s. 1).
228. In the Local Governments’ submission, imposing a requirement for a) independent and qualified third party monitoring and b) adaptive management that requires responsive action to prevent and if necessary mitigate harms detected through monitoring is not only consistent with, but required by the grant of authority to the NEB under CEAA, 2012. See *Greenpeace Canada v. Canada (Attorney General)*, 2014 FC 463, where the Court states:
- “...As the Panel notes at p. 40 of the EA Report, mitigation and follow-up are distinct concepts. Both are defined in s. 2(1) of the Act. Mitigation is about eliminating, reducing or controlling a project's adverse effects; follow-up is about verifying the accuracy of the EA, or the effectiveness of mitigation measures” (para 193).

229. The Board is required under *CEAA, 2012* to “exercise their powers in a manner that protects the environment and human health and applies the precautionary principle” (*CEAA, 2012*, s. 4(2)).
230. The precautionary principle requires, in the face of threats of environmental harm (which includes socio-economic impacts), and in the presence of some degree of uncertainty, that the responsible authority employ pessimistic assumptions thus lowering the levels of risks which are acceptable, and take appropriate measures to prevent harm.¹⁵¹ The precautionary principle is to be exercised in conjunction with adaptive management, which requires follow-up programs that are capable of adjusting mitigation measures to address the adverse environmental impacts that may not be adequately predicted or prevented in advance. Adaptive management also requires there to be sufficient baseline information regarding those impacts and mitigation measures to begin with:

“....In *Canadian Parks & Wilderness Society v. Canada (Minister of Canadian Heritage)*, 2003 FCA 197, [2003] F.C.J. No. 703 (Fed. C.A.), at para. 24, Evans J.A. stated that “[t]he concept of “adaptive management” responds to the difficulty, or impossibility, of predicting all the environmental consequences of a project on the basis of existing knowledge” and indicated that adaptive management counters the potentially paralyzing effects of the precautionary principle. Thus, in my opinion, adaptive management permits projects with uncertain, yet potentially adverse environmental impacts to proceed based on flexible management strategies capable of adjusting to new information regarding adverse environmental impacts where sufficient information regarding those impacts and potential mitigation measures already exists.

Accordingly, the scope of the duties incumbent upon a panel must be viewed through the prism of these guiding tenets: the precautionary principle and adaptive management. As an early planning tool, environmental assessment is tasked with the management of future risk, thus a review panel has a duty to gather the information required to fulfill this charge.

In sum, the CEAA represents a sophisticated legislative system for addressing the uncertainty surrounding environmental effects. To this end, it mandates early assessment of adverse environmental consequences as well as mitigation measures, coupled with the flexibility of follow up processes capable of adapting to new information and changed circumstances. The dynamic and fluid nature of the process means that perfect certainty regarding environmental effects is not required.”¹⁵² [emphasis added]

¹⁵¹ *Spellman v. Ontario (Director, Ministry of the Environment)* (2007), 2007 CarswellOnt 7915 (Ont. Environmental Review Trib.); *Budisukma Puncak Sendirian Berhad v. Canada* (2005) 2005 FCA 267.

¹⁵² *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, 2008 FC 302.

231. The Board is authorized to outline specific requirements for a monitoring scheme that is robust, transparent, scientifically sound and sufficient for determining the effect the TMEP has on the built and natural environment over the course of construction and during operations. Only following appropriate monitoring can adaptive mitigation and compensation for the actual impacts of the TMEP can be made.
232. The Local Governments jointly submit that the Board must exercise its jurisdiction to seek to ensure that any approval of the proposed TMEP is made conditional upon certain and enforceable measures that mitigate risk and impacts upon local communities to the greatest extent possible, compensate those communities for impacts that cannot be mitigated, and impartially monitor and adapt the construction and operation of the TMEP to ensure that the former two principles are appropriately implemented.

All of which is respectfully submitted.