

NATIONAL ENERGY BOARD

IN THE MATTER OF the *National Energy Board Act*, R.S.C. 1985, c. N-7, as amended, (“NEB Act”) and the Regulations made thereunder;

AND IN THE MATTER OF the Certificate of Public Convenience and Necessity OC-064 held by Trans Mountain Pipeline ULC as General Partner of Trans Mountain Pipeline L.P., in respect of the Trans Mountain Expansion Project;

AND IN THE MATTER OF National Energy Board Orders XO-T260-003-2017, MO-021-2017, XO-T260-010-2016 and XO-T260-007-2016 for Project-related work at the Burnaby Terminal and Westridge Marine Terminal.

AFFIDAVIT OF MICHAEL DAVIES

October 26, 2017

To: The Secretary
National Energy Board
517 – 10th Avenue S.W.
Calgary, AB T2R 0A8

AFFIDAVIT #1 OF MICHAEL DAVIES

I, Michael Davies, of Calgary, Alberta MAKE OATH AND SAY AS FOLLOWS:

1. Trans Mountain Pipeline ULC is general partner of Trans Mountain Pipeline L.P. (collectively, “**TMPU**”), which together are the proponents of the Trans Mountain Expansion Project (the “**Project**”). I am VP Operations for Kinder Morgan Canada Inc. (“**KMC**”) and am authorized by TMPU to swear this affidavit (the “**Affidavit**”). In this affidavit, KMC and TMPU (collectively and independently) are referenced as “**TM**”.
2. I have personal knowledge of the matters in this Affidavit, except where stated to be based on information and belief, in which case I believe the same to be true.
3. I swear this Affidavit in support of TM’s Notice of Motion and Notice of Constitutional Question (which I have reviewed) requesting an order from the National Energy Board (“**NEB**” or “**Board**”) in relation to Certificate OC-064 (“**Certificate**”), NEB XO-T260-003-2017 [**A82717**], MO-021-2017 [**A82725**] and XO-T260-010-2016 [**A77401**], XO-T260-007-2016 [**A5C4Z0**], the City of Burnaby’s (“**Burnaby**”) Bylaw No. 4742 (“**Zoning Bylaw**”) and Burnaby Bylaw No. 10483 (“**Tree Bylaw**”).

A. Overview

4. This Affidavit describes:
 - (a) the Project, including its main components and related activities within Burnaby;
 - (b) the stakeholder engagement process TM followed to develop the Project, including its engagement with Burnaby representatives and residents;
 - (c) the regulatory process leading to the Board’s issuance of its report in respect of the Project on May 19, 2016 (“**NEB Report**”), including Burnaby’s participation in that process;
 - (d) the Governor in Council’s (“**GIC**”) approval of the Project;
 - (e) the Board’s issuance of the Certificate and related orders for the Project;

- (f) TM's engagement with Burnaby representatives and residents since 2011;
- (g) Burnaby's opposition to the Project;
- (h) TM's efforts to obtain Preliminary Plan Approvals ("PPAs") from Burnaby under the Zoning Bylaw and,
- (i) the potential harm that may arise if Project construction is delayed.

5. Throughout this Affidavit, reference will be made to documents that were filed with the NEB on its electronic registry ("**Registry**"), located on the Board's website (<https://apps.neb-one.gc.ca/REGDOCS/Item/View/2392873>). Individual documents on the Registry are identified in this Affidavit by the NEB's filing ID in square brackets. Documents referenced in this Affidavit that were not previously posted on the Registry are appended hereto as exhibits.

B. The Project Proponent

6. Trans Mountain Pipeline ULC, an unlimited liability company, is a Canadian corporation with its head office located in Calgary, Alberta, formed pursuant to the laws of Alberta and extra-provincially registered in BC.

7. KMC operates the existing TM pipeline system ("**Pipeline**") pursuant to an operating agreement between KMC and TMPU whereby TMPU owns and holds the NEB operating certificates for the Pipeline.

C. The Pipeline

8. The Pipeline was commissioned in 1953. The Pipeline currently moves crude oil, refined and semi-refined petroleum products from Sherwood Park, Alberta, to marketing terminals and refineries in the central BC region, the Lower Mainland area, and the Puget Sound area in Washington State. Oil is also loaded from the Pipeline onto third-party tankers at the Westridge Marine Terminal ("**WMT**"), in Burnaby, BC, for delivery to Pacific Rim destinations, such as Washington State, California, and Asia.

9. The initial capacity of the Pipeline was 150,000 barrels per day ("**bpd**"). The capacity of the Pipeline has increased a number of times since 1953 through the twinning of parts of the line

and the addition of associated facilities. Today the Pipeline is 1,147 kilometres (“**km**”) in length and has a capacity of approximately 300,000 bpd.

10. When existing shippers nominate more volume than the Pipeline can transport, each shipper’s nominated volume is apportioned or reduced by the same percentage. The current demand for transportation services exceeds the current Pipeline capacity and has resulted in the ongoing need to apportion the available capacity among existing shippers.

D. The Project

(i) Expansion of the Pipeline

11. The Project which involves expanding the existing Pipeline capacity was developed in response to requests for service from Western Canadian oil producers and West Coast refiners for increased Pipeline capacity, in support of growing oil production and access to West Coast offshore markets.

12. TM’s evidence during the NEB hearing (“**Hearing**”) included, among other things, that the Project will: (i) provide additional transportation capacity for crude oil from Alberta to markets in the Pacific basin including BC, Washington State, California, Hawaii and Asia; (ii) enhance access to growing Pacific basin markets that provide a critical alternative market to Canadian crude oil producers; and, (iii) increase Canadian oil production revenues by approximately \$73.5 billion over the first 20 years [A4U8F7, A4U8F8, A4U8F9]. The Project will nearly triple the Pipeline capacity to 890,000 bpd.

13. TM executed long-term firm transportation contracts with 13 shippers for a volume of 707,500 bpd, which represents approximately 80% of the nominal capacity of the expanded Pipeline. This represents the full amount of the Project’s nominal capacity made available for firm service, with the remaining 20% reserved for common carriage service. The tolling methodology, including all aspects of the transportation service agreements, was approved in the Board’s Reasons for Decision RH-001-2012 [A51913-1].

14. On May 23, 2013, TM filed its Project Description with the Board [A3H8S2, A3H8S3, A3H8S4, A3H8S5]. The Project includes the following components:

- (a) pipeline segments that complete a twinning (or looping) of the Pipeline in Alberta and BC with about 987 km of new buried pipeline;
- (b) new and modified facilities, including pump stations and tanks; and
- (c) three new berths at the WMT in Burnaby, BC.

(ii) *Burnaby Terminal Work*

15. The Burnaby Terminal is an industrial site that operates as the end point of the Pipeline. Currently, it serves as a distribution point for crude oil to the Chevron refinery in Burnaby and to the WMT, and refined products to the Suncor terminal. Part of the Project entails expanding and modifying the Burnaby Terminal within the existing property, including:

- (a) relocating existing delivery pipelines and utilities within the Burnaby Terminal, referred to as the Burnaby Terminal modifications (“**BTM**”); and
- (b) demolishing one of the existing 13 tanks and building 14 new tanks, resulting in a total of 26 tanks, installing full-surface fire-protection systems and odour abatement equipment on all new tanks, and installing an enhanced storm water treatment system (“**BT Expansion**”).

16. The BT Expansion is subject to the Burnaby Terminal Variance Application submitted pursuant to s. 21 of the NEB Act (“**s. 21 Variance Application**”) [A81919, A84954]. The s. 21 Variance Application was filed on March 1, 2017, and July 14, 2017 respectively. The s. 21 Variance Application has not yet been approved by the Board [A5V5W5]; however, the lands disturbed and nature of the work described in the s. 21 Variance Application are not materially different from the BT Expansion work originally contemplated by TM and approved by the Board. Approval of the s. 21 Variance Application is expected in December 2017, based on the Board’s letter of October 13, 2017 [A5V5W5].

17. The entirety of the BTM and BT Expansion activities will take place on TM’s Burnaby Terminal lands, which are owned in fee simple by TM.

(iii) WMT Expansion

18. The WMT is a loading facility where tankers that transport products from the Pipeline to overseas markets are loaded with products from the Pipeline. To accommodate increased delivery capacity on the Pipeline associated with the Project, TM must expand the WMT, which includes the installation of a new dock complex with three berths, a utility dock to moor tugs, boom boats and emergency response vessels, additional delivery pipelines and an extension of the land along the shoreline to accommodate new equipment.

19. Construction activities for the WMT expansion will include: (i) site preparation; (ii) in-water construction including pile driving to accommodate new berths and trestles; (iii) construction on the foreshore extension; (iv) construction on land, including replacement of the existing substation, replacement of power line within the terminal, installation of new electrical cables, control systems and pipe; (v) tunnel portal construction and tunnel boring, installation of pipelines within the tunnel; (vi) decommissioning and demolition of existing dock; and, (vii) demobilization and site restoration (“**WMT Expansion**”).

20. In order to complete the WMT Expansion, TM will need to prepare a temporary construction laydown area, referred to as the Kask Bros Laydown Site (“**KB Site**”). The KB Site is currently used for the manufacturing and fabrication of concrete blocking, will be used for assembly and storage of materials, tools and equipment, parking, a construction office trailer and a bus staging area to shuttle workers to and from the WMT lands. I have been informed by Randy Brake, Project Manager, that the KB Site is necessary, and its sole purpose is to support the WMT Expansion. A map showing the proximity of the KB Site and the WMT Expansion is attached as **Exhibit 1**.

21. The foreshore activities at the Westridge Marine Terminal will occur on federal lands. The remainder of the WMT Expansion will occur on lands owned by TM in fee simple. The KB Site will be constructed on lands in Burnaby leased by TM on a temporary basis from a third party.

E. The Project Application

(i) 2013 Application to the NEB

22. TM submitted the facilities application for the Project (“**Application**”) on December 16, 2013. In its Application, Trans Mountain sought approval for the Project, including the associated expansion of the Burnaby Terminal and WMT, pursuant to section 52 of the NEB Act. Volume 1 [A3S0Q7] of the Application summarizes the Application’s contents.

23. Volume 4B [A56004] of the Application describes the BT Expansion and WMT Expansion as follows, and includes supporting figures:

4.2.1.3 Burnaby Terminal

The primary scope elements at Burnaby Terminal will include:

- clearing the trees from around Eagle Creek and its tributaries, and permanently diverting their flows into culverts or new open channels (if practical);
- removing part of the existing secondary containment berms around Tanks 85, 71, and 73 in the middle of Terrace 1 and around Tank 86 in the middle of Terrace2, and constructing new secondary containment berms to create common impoundment areas;
- excavating to create eastern extensions to Terraces 1 and 2, and constructing new secondary containment berms to create common impoundment areas;
- excavating to create Terraces 3 and 4, and constructing new secondary containment berms to create common impoundment areas and a partial remote impoundment area;
- installing synthetic liners in the new secondary containment areas;
- constructing new terrace and tank access roads;
- constructing an intermediate storm-water retention area;
- cleaning and demolishing one existing tank (Tank 74);
- constructing 14 IFR storage tanks, complete with TVAUs;
- installing tank lines for the new tanks, largely above ground;
- installing a sending/receiving trap area, valve manifold, booster pumps, and metering system;

- installing the terminating and originating segments of the incoming nominal pipe size (NPS) 36 pipeline and the two outgoing NPS 30 pipelines;
- installing interconnection piping between the new manifold and the existing manifold, largely above ground;
- installing one fire-water pump building and one foam building;
- installing a fire-water/foam distribution system;
- installing a storm-water collection and treatment system;
- installing a new electrical sub-station; and
- installing three ESBs and one VFD building.

4.2.1.4 Westridge Marine Terminal

The primary scope elements at Westridge Marine Terminal will be in two areas, the foreshore area and the dock area, and will include:

Foreshore area:

- excavating unsuitable materials and installing infill materials;
- densification of the portions of existing foreshore and the infill areas;
- excavating to create a terrace for the vapour recovery unit (VRU) process tanks;
- constructing secondary containment walls for the pipeline pressure relief tank and the VRU process tanks;
- installing synthetic liners in the new secondary containment areas;
- constructing concrete containment and storm-water collection in process equipment areas;
- constructing an access road system;
- constructing three IFR tanks, complete with TVAUs, one for pipeline pressure relief and two for VRU processes;
- installing tank lines for the new tanks, largely above ground;
- installing a receiving trap area, valve manifold, and metering system, complete with a prover;
- installing the terminating segments of the incoming NPS 24 and NPS 30 pipelines;
- installing interconnection process piping between the manifold area and the dock complex, largely above ground;

- installing two VRU systems, including process vessels, pumps, and vapour and process piping;
- installing one vapour combustion unit (VCU) skid, including a fuel source and vapour piping;
- installing a nitrogen (purge) system;
- installing interconnection vapour piping between the VRU/VCU area and the dock complex, largely above ground;
- installing one fire-water pump building and one foam building;
- installing a fire-water/foam distribution system;
- installing a storm-water collection and treatment system;
- installing a new electrical sub-station; and
- installing ESBs and a standby generator building.

Dock area:

- demolishing the existing utility dock;
- installing approximately 200 piles (driven and/or socketed);
- installing cast-in-place and/or pre-cast pile caps;
- installing pre-cast and/or pre-fabricated trestle, and loading platform decking structures;
- installing breasting and mooring dolphins;
- installing gangways, catwalks, and other structural components;
- installing loading arms, and other mechanical components;
- installing interconnection process and vapour piping from the foreshore to the berths (above water);
- installing a fire-water/foam distribution system;
- installing a contained storm-water collection and return system; and
- demolishing the existing loading/unloading dock and its associated infrastructure, after new Berth 1 is in service.

There may also be some improvements made to the existing main access road and the addition of a second access road for emergency response purposes.

24. TM provided the following information with respect to its plans for vegetation clearing to facilitate Project construction in Volume 5A [A3S1L3] of the Application:

Vegetation (trees, stumps, brush, grasses, crops and other vegetation) and snow will be cleared or mowed from the construction right-of-way and temporary workspace. Equipment used during clearing activities may include chainsaws, rotary grinders, feller-bunchers, hydro-axes or other tree-clearing and brushing equipment, as well as skidders, bulldozers and excavators. A stump mulcher will be utilized rather than grubbing on areas where topsoil or root zone material salvage and grading is not necessary [section 2.2.1].

25. TM's Application also sought an order from the NEB, pursuant to section 58 of the NEB Act, exempting TM from the requirements of subsections 31(c), 31(d) and 33 of the NEB Act in relation to select temporary lands or infrastructure required for construction of the Project.

(ii) Stakeholder Engagement

26. In addition to the numerous opportunities to express concerns and views about the Project to the NEB, all potentially affected stakeholders, including Burnaby, were able to discuss the Project directly with TM.

27. TM provided introductory information on the Project through 37 public open houses in the fall and winter of 2012 and hosted subsequent open houses between May and July 2013 based on the initial public feedback it received. During the NEB process, TM consulted with thousands of individuals through 159 open houses or workshops along the Project's pipeline and marine corridors and organized more than 1,700 meetings between Project team members and stakeholder groups. These efforts were summarized in TM's filings during the Hearing [**A3S0R2, A59343, A62087, A62088, A4H1W2, A4H1W3, A4H1W4, A4H1W5, A4H1W6, A4H1W7, A4S7G8**].

28. TM filed numerous consultation logs and engagement summary documents with the NEB throughout the Hearing to report on its consultation efforts with potentially impacted stakeholders and Aboriginal groups [**A3S0R2, A3V3L9, A3Z8Q2, A4S7G8**].

29. For a period in excess of five years (and, preceding the formal announcement of the Project), TM conducted extensive stakeholder engagement with Burnaby government representatives, Burnaby residents and other stakeholders in Burnaby. These efforts were summarized in TM's filings with the board and include:

- (a) November 2011: TM sent a letter to Burnaby residents advising that TM had commenced informal discussions to expand its Pipeline [**A3S0R3**].

- (b) July 2012: TM sent 45,529 newsletters to Burnaby and North Vancouver residents with Project details and a preview of future engagement opportunities [A3S0R3].
- (c) November 2012: TM participated in Burnaby's integrated storm water management visionary workshop for Eagle Creek watershed [A3S0R5].
- (d) November 24, 2012: TM hosted a public open house in Burnaby with approximately 98 attendees [A4H1W5].
- (e) November 26, 2012: TM hosted a public open house in Burnaby with approximately 118 attendees [A4H1W5].
- (f) June 26, 2013: TM held a community workshop for selected participants in Burnaby. Of the 37 community representatives invited, 14 attended, including the Sapperton Fish & Game Club, Eagle Creek Streamkeepers, Burnaby Board of Trade, Westridge neighbours, Burnaby Mountain Residents Association, North Burnaby Community Association, Simon Fraser University Facilities, UniverCity, Burnaby Residents Opposed to Kinder Morgan Expansion, North East Burnaby Community Association, Stoney Creek Community Garden, Stoney Creek Environment Committee and the BC Federation of Fly Fisherman [A3S0R4].
- (g) September 25, 2013: TM held a public open house on the Burnaby Terminal with approximately 88 attendees [A4H1W5].
- (h) December 6, 2013: TM and Burnaby attended the multi-stakeholder Regional Emergency Planning Committee workshop [A4H1W5].
- (i) January 2014: TM provided notice in publications of the Application to Participate ("ATP") deadline for the Project [A3Z8J2].
- (j) March 11, 2014: TM met with Burnaby to provide a Project update, including an update on the proposed ESA and routing [A3Z8J2].
- (k) April 3, 2014: TM hosted a pipeline corridor optimization workshop in Burnaby. Representatives from Burnaby Board of Trade, Simon Fraser University, BC Fly

Fishers Federation, a Member of the B.C. Legislative Assembly, the B.C. Ministry of Transportation and Infrastructure and the Stoney Creek Streamkeepers attended [A3Z8J2].

- (l) April 3, 2014: TM hosted an open house to discuss the Project in Burnaby with approximately 146 attendees [A3Z8J2, A4H1W5].
- (m) April 10, 2014: TM sent an electronic copy of the Application to Burnaby [A3Z8J2].
- (n) June 4, 2014: TM sent a letter to Burnaby extending an invitation to meet and discuss potential legacy benefits to the community should the Project proceed [A3Z8J2].
- (o) June 10, 2014: Despite several requests from TM to Burnaby to meet to discuss community legacy benefits, Burnaby confirmed that it will not discuss community benefits until TM receives Project approval [A3Z8J2].
- (p) June 11, 2014: TM announced that it had documented more than 150 instances of engagement with Burnaby regarding the Project since May 2012 [A4H1W2].
- (q) August 22, 2014: TM notified Burnaby and residents in the Westridge neighbourhood that it filed Technical Update No. 2 with the NEB [A4H1W3, A4H1W5].
- (r) September 2014: TM notified stakeholders about an NEB supplementary ATP process in Burnaby publications [A4H1W2].
- (s) September 16, 2014: TM held a telephone town hall with over 5,000 Burnaby residents, which included an update on the Project and an opportunity for participants to ask questions [A4H1W3].
- (t) October 17, 2014: TM sought input from Burnaby School District (No. 41) [A4H1W5].

- (u) December 3, 2014: TM held a telephone town hall with 4,937 Burnaby residents, which also included an update on the Project and an opportunity for participants to ask questions [A4H1W3].
- (v) December 1 to December 7, 2014: TM ran its Burnaby Mountain communications initiative focused on the facts surrounding the events happening on Burnaby Mountain and brought awareness to TM's preference to continue the dialogue about the Project [A4H1W2].
- (w) June 3, 2015: TM conducted neighbourhood information session for residents of Burnaby and Coquitlam, BC to provide an update on the proposed Project and share information on the environment, reclamation and construction impacts [A4S7G4].

30. I have been advised by TM's Stakeholder Engagement and Communications Team that there has been comprehensive and transparent continuing engagement with residents of Burnaby since June 2015, which will continue throughout the construction of the Project.

F. Burnaby's Participation in the NEB Process

31. The Board posed more than 400 information requests "IRs" of TM in seven rounds. The intervenors posed more than 17,000 questions in two rounds of IRs, and additional specific intervenor IR rounds were added by the Board. Intervenors were also permitted to file motions to compel further IR responses.

32. Burnaby extensively participated in the NEB process including by filing IRs, motions, written evidence, written argument and providing oral argument.

33. Burnaby filed an Application to Participate in the Hearing on February 3, 2014 [A3T5X8]. The Board granted Burnaby intervenor status on April 2, 2014 [A3V6I5, A3V6I6].

34. Burnaby submitted numerous IRs to TM and other parties during the regulatory process. A summary of Burnaby's involvement with IRs is as follows:

- (a) May 8, 2014: Burnaby submitted over 1,800 Round 1 IRs to TM, to which TM responded on June 18, 2014 [A61123].

- (b) July 4, 2014: Burnaby filed a motion to compel further and better responses to specific Round 1 IR responses. TM responded on July 11, 2014 and indicated that follow-up responses for certain IRs would be provided by August 1 and August 15, 2014 [A61682].
- (c) July 16, 2014: Burnaby filed a letter with the Board in response to TM's July 11 response [A3Z3T7].
- (d) August 1, 2014: TM provided follow-up responses to specific Round 1 IR responses [A62083].
- (e) August 15, 2014: TM provided follow-up responses to specific Round 1 IR responses [A62290].
- (f) September 26, 2014: In Ruling No. 33, the Board compelled TM to provide full and adequate responses to 19 of Burnaby's Round 1 IRs. The Board denied Burnaby's other requests [A63066].
- (g) October 17, 2014: TM provided supplemental Round 1 IR responses pursuant to Ruling No. 33 [A63576].
- (h) January 16, 2015: Burnaby submitted over 600 Round 2 IRs to TM, to which TM responded on February 18, 2015 [A66273].
- (i) February 18, 2015: Burnaby submitted over 70 TERMPOL IRs to TM, to which TM responded on March 17, 2015 [A68933].
- (j) February 26, 2015: Burnaby filed a motion to compel further and better responses to specific Round 2 IR responses, to which TM responded on March 12, 2015 [A68659].
- (k) March 17, 2015: Burnaby replied to TM's March 12, 2015 response in a letter to the Board [A4J7Q3].

- (l) March 24, 2015: Burnaby filed a motion to compel further and better responses to specific TERMPOL IR responses, to which TM responded on April 7, 2015 [A69399].
- (m) April 7, 2015: Burnaby submitted 70 Round 2(c) IRs to TM, to which TM responded on April 13, 2015 [A69477].
- (n) April 13, 2015: Burnaby responded to TM's April 7, 2015 response in a letter to the Board [A4K5E1].
- (o) April 17, 2015: Burnaby filed a motion to compel further and better responses to specific IR Round 2(c) responses, to which TM responded on April 22, 2015 [A69612].
- (p) April 23, 2015: Burnaby responded to TM's April 22, 2015 response in a letter to the Board [A4K7Q6].
- (q) April 27, 2015: In Ruling No. 63, the Board compelled TM to provide full and adequate responses to three of Burnaby's Round 2 IRs. The Board denied Burnaby's other requests [A69687].
- (r) May 1, 2015: In Ruling No. 67, the Board compelled TM to provide a full and adequate response to one of Burnaby's TERMPOL IRs. The Board denied Burnaby's other requests [A69796].
- (s) May 4, 2015: TM provided supplemental Round 2 IR responses pursuant to Ruling No. 63 [A69815].
- (t) May 4, 2015: Burnaby submitted 18 Round 2(d) IRs to TM, to which TM responded on May 11, 2015 [A69933].
- (u) May 7, 2015: TM provided a supplemental TERMPOL IR response pursuant to Ruling No. 67 [A69873].

- (v) May 8, 2015: In Ruling No. 69, the Board denied all of Burnaby's requests for TM to provide further responses to Burnaby's Round 2(c) IRs [A69925].
- (w) May 15, 2015: Burnaby filed a motion to compel further and better responses to specific IR Round 2(d) responses, to which TM responded on May 19, 2015 [A70060].
- (x) May 21, 2015: Burnaby responded to TM's May 19, 2015 response in a letter to the Board [A4L4L2].
- (y) May 28, 2015: In Ruling No. 74, the Board denied all of Burnaby's requests for TM to provide full and adequate responses to Burnaby's Round 2(d) IRs [A70397].
- (z) June 22, 2015: Burnaby submitted 56 IRs to the Department of Fisheries and Oceans Canada ("DFO"), 43 IRs to Natural Resources Canada ("NRCan") and 20 IRs to the Vancouver Fraser Port Authority, to which these parties responded on July 14, 2015 [A71209].
- (aa) June 22, 2015: TM and Vancouver submitted one IR and three IRs, respectively, to Burnaby, to which Burnaby responded on July 14, 2015 [A4R4H8].
- (bb) July 15, 2015: The Board submitted three IRs to Burnaby, to which Burnaby responded on July 27, 2015 [A4R7S5].
- (cc) July 22, 2015: Burnaby filed a motion to compel further and better responses to specific IR responses from the DFO and NRCan, to which these parties responded on August 4, 2015 [A71608] and [A4R9H5].
- (dd) August 5, 2015: Burnaby responded to the August 4, 2015 responses from the DFO and NRCan in a letter to the Board [A4R9S4].
- (ee) August 12, 2015: In Ruling No. 85, the Board denied all of Burnaby's requests for DFO and NRCan to provide further responses to Burnaby's IRs [A71779].

- (ff) October 20, 2015: Burnaby submitted over 230 IRs to TM regarding its replacement evidence, to which TM responded on October 26, 2015 [A73427].
- (gg) October 29, 2015: Burnaby filed a motion to compel further and better responses to IRs on TM's replacement evidence, to which TM responded on November 2, 2015 [A73614].
- (hh) November 3, 2015: Burnaby responded to TM's November 2, 2015 response in a letter to the Board [A4V0U0].
- (ii) November 17, 2015: In Ruling No. 99, the Board denied all of Burnaby's requests for TM to provide further responses to Burnaby's IRs regarding TM's replacement evidence [A74037].

35. Burnaby submitted over 900 pages of written evidence on May 27, 2015 [A70266], addressing, among other things, (i) risks associated with TM's proposed tank farm expansion and the WMT, including from possible oil spills or fires; (ii) geotechnical concerns with the WMT and TM's Burnaby Mountain tunnel option; and, (iii) socio-economic impacts on Burnaby, including health effects. Burnaby's evidence included:

- (a) a report entitled, "Trans Mountain Tank Farm Tactical Risk Analysis" by Burnaby's Fire Department [A4L8F6];
- (b) a report entitled, "Oil Spill Trajectory Modeling in Burrard Inlet for the Trans Mountain Expansion Project" by Genwest Systems Inc. [A4L8F8];
- (c) a report entitled, "Westridge Marine Terminal Offshore Geotechnical Investigation" by MineIt Consulting Inc. [A4L8F9];
- (d) a report entitled, "Burnaby Terminal Geotechnical Investigation" by MineIt Consulting Inc. [A4L8G0];
- (e) a report entitled, "Cost Impacts of the Trans Mountain Expansion on Lower Mainland Municipalities" by L. Martin (an excerpt of which is attached as [A4L8G3]);

- (f) a report entitled, “Assumptions of Trans Mountain Pipeline ULC for the Trans Mountain Expansion Project in the City of Burnaby” prepared by Burnaby (an excerpt of which is attached as [A4L8G5]);
- (g) a report entitled, “Opinion on Potential Off-Site Risks of the Proposed Expansion of Burnaby Tank Farm” prepared by Dr. Ivan Vince (an excerpt of which is attached as [A4L8G6]);
- (h) a report entitled, “Addendum to Review of Burnaby Mountain Tunnel Option” prepared by Pakalnis & Associates [A4L8G9]; and
- (i) a letter from Vancouver Coastal Health regarding possible health impacts from a major spill of diluted bitumen in the Burrard Inlet [A4L8H5].

36. TM replied to Burnaby’s (and other intervenors’) evidence on August 20, 2015 [A72224, A72225]. TM’s reply evidence included two reports prepared specifically in response to Burnaby [A4S7K0, A4S7K1].

37. TM filed written argument on December 15, 2015 [A4W6L8, A4W6Q0, A4W6Q2]. Burnaby submitted its final written argument on January 12, 2016 [A4X4I6] and delivered oral summary argument in Burnaby, BC on January 20, 2016 [A4X7G2]. TM filed its reply argument on February 17, 2016 [A75548].

G. Burnaby’s Refusal to Grant Access for the Project in 2014

38. Extensive urban development has encroached along the Pipeline alignment in Burnaby since its completion in 1953. In the Application, TM proposed an alignment for the Project parallel to the Pipeline through residential streets in Burnaby. During the NEB process, Burnaby residents and stakeholders repeatedly requested that TM consider a trenchless option through Burnaby Mountain instead of routing through residential streets in Burnaby.

39. TM took numerous steps in response to landowner and stakeholder feedback that indicated they preferred to avoid routing the pipeline through Burnaby streets. To meet the NEB Filing Manual requirements for a potential Burnaby Mountain trenchless alignment, TM identified

studies involving geotechnical investigations, surveys and fieldwork on the Burnaby Mountain corridor on lands belonging to Burnaby.

40. On July 15, 2014, the NEB requested geotechnical, engineering, socio-economic and environmental studies and related information (“**Corridor Studies**”) regarding TM’s preferred corridor through Burnaby Mountain and announced an excluded period (July 11, 2014 to February 3, 2015) to allow TM to complete and file these Corridor Studies [A3Z2W5]. TM requested from Burnaby access to conduct the Corridor Studies, which was not given. Burnaby’s position was that TM’s statutory rights are subject to compliance with municipal bylaws.

41. In Ruling No. 28 [A4A2V2], the NEB confirmed that TM had a statutory right to enter Burnaby’s lands and conduct the Corridor Studies without Burnaby’s consent.

42. Delays occurred when TM was unable to acquire municipal permits from Burnaby enabling TM to access city lands to conduct its studies. After TM commenced the Corridor Studies, Burnaby issued bylaw contravention notices to TM.

43. Burnaby requested an injunction against TM. Based on information from TM’s counsel, I understand that, in support of its injunction application, Burnaby relied on an affidavit sworn by Mr. Dipak Dattani, Deputy Director Engineering for Burnaby, and that the BC Supreme Court declined to grant an injunction (**Exhibit 2**).

44. The Board issued Ruling No. 40 [A4D6H0] and Order MO-122-2014 [A4D6H2] on October 23, 2014, which required: (i) Burnaby to comply with section 73(a) of the NEB Act and allow TM temporary access to city lands to conduct its studies; and (ii) forbid Burnaby from obstructing TM’s access to its lands.

45. Order MO-122-2014 was certified by the Federal Court on October 27, 2014 (**Exhibit 3**).

46. Burnaby’s request for leave to appeal Ruling No. 40 was denied by the Federal Court of Appeal on December 12, 2014 (**Exhibit 4**).

47. TM also obtained an injunction from the BC Supreme Court on November 14, 2014 (**Exhibit 5**) against named and unknown protestors who blocked TM’s access to city lands to perform its studies.

48. TM provided evidence to the NEB demonstrating the Burnaby Mountain route has the fewest impacts to directly affected residents. TM also responded to Burnaby's requests for supplemental information regarding the Burnaby Mountain alignment. On December 1, 2014, TM confirmed in a Westridge Delivery Lines Routing Update [A4F5D5] that its preferred routing for the Westridge Delivery Pipelines, based on the results of studies and stakeholder engagement, is a tunnel through Burnaby Mountain,.

49. TM applied its routing criteria to follow the existing Pipeline alignment and other existing linear facilities wherever possible [A3S0Y8]. TM requested Board approval for the preferred corridor as well as the limited alternative corridors in order to address technical issues and stakeholder concerns. This included the preferred trenchless pipeline corridor through Burnaby Mountain and an alternative corridor required as a contingency for trenchless installation [A65693].

H. NEB Report

(i) NEB Recommends Conditional Approval

50. On May 19, 2016, the NEB issued the NEB Report [A77045-1]. Among other things, the Board concluded that:

- (a) the Project is in the public interest (p. xi);
- (b) TM developed and implemented a broadly based public consultation program, offering opportunities for the public, landowners, governments and other stakeholders to learn about the Project and to provide their views and concerns (p. 28);
- (c) Burnaby declined a number of opportunities to engage with TM, which diminished the quality of information available to both TM and the Board (p. 28);
- (d) TM will design, construct and operate the WMT in accordance with applicable regulations, standards, codes and industry best practices, and TM's design approach for the WMT Expansion is acceptable (pp. 100-101);

- (e) TM provided an adequate assessment, including consideration of technical, socio-economic and environmental effects, of technically and economically feasible alternative marine terminal locations (p. 244);
- (f) the trenchless Burnaby Mountain alignment would reduce disruption during construction, minimize risk during operation, and would have a lower hazards rating than constructing the Project through the streets of Burnaby (pp. 81-82);
- (g) the Board is satisfied with TM's commitments related to forest health and urban trees (p. 196);
- (h) with the Board's conditions and with the implementation of TM's environmental protection procedures and mitigation, the Project is not likely to cause significant adverse environmental effects (p. xii); and,
- (i) TM's request for orders pursuant to s. 58 of the NEB Act in relation to temporary lands and infrastructure required for construction of the Project should be granted, subject to GIC approval and conditions (pp. 245-246).

51. The NEB Report imposes 157 conditions (“**Conditions**”) on the Certificate (and other legal instruments) that address many issues, including:

- (a) safety and integrity of the pipeline;
- (b) emergency preparedness and response;
- (c) protection of the environment;
- (d) ongoing consultation with those affected, including municipalities;
- (e) socio-economic matters;
- (f) affirmation of commercial support for the Project prior to construction; and,
- (g) financial responsibility.

52. TM filed a risk assessment of the Burnaby Terminal with the Board [A3W9S5]. Conditions 22, 24 and 129 require TM to file with the Board for approval updated terminal risk assessments and additional secondary containment analysis for the Burnaby Terminal.

53. The majority of the Conditions were modified based on feedback from intervenors, including Burnaby. In its argument before the NEB, Burnaby provided comments on the draft Conditions proposed by the NEB, including for example a general statement that 35 conditions have been deferred to the post-approval stage of the Project [A4X4I6]. In its analysis (as set out in the NEB Report), the Board noted Burnaby's concerns in relation to more than 15 Conditions.

54. Each Condition contains a list of more specific parameters and obligations with which TM must (and fully intends to) comply during construction and operation of the Project. Certificate Condition 1 states that "Trans Mountain must comply with all of the [certificate/order] conditions, unless the NEB otherwise directs."

55. Certain relevant Conditions require TM to:

- (a) form Technical Working Groups ("TWGs") with willing municipalities in order to address specific technical and construction issues with affected municipalities through the development of TWG terms of reference in consultation with the municipalities, and regularly report on: (i) all TWG activities; (ii) issues or concerns raised or addressed during TWG activities; and, (iii) outcomes or measures that were or will be implemented to address issues or concerns raised through the TWGs (Conditions 14, 49);
- (b) file the results of an updated pipeline risk assessment, a Quantitative Geohazard Frequency Assessment (Condition 16) and a Natural Hazards Management Program prior to construction (Conditions 15, 16, 147);
- (c) prepare post-construction environmental monitoring reports in consultation with Appropriate Government Authorities for periodic filing with the Board, where such reports must include information on monitoring results and TM's management of Project-related impacts to soils, weeds, watercourse crossings, riparian vegetation,

wetlands, rare plants, municipal tree replacement, wildlife and wildlife habitat, fish and fish habitat, marine mammals, marine birds and species at risk (Condition 151);

- (d) list all temporary sites and perform an Environmental and Socio-Economic Assessment of temporary construction land locations and infrastructure. The Environmental and Socio-Economic Assessment must identify all associated mitigated measures and be approved by the Board (Conditions 60, 61).

56. Each Condition contains a list of specific parameters and obligations with which TM must comply during construction and operation of the Project.

57. The Conditions also require TM to implement all of the commitments it made during the NEB process. A copy of the Commitments Tracking Table was filed on the Registry during the Hearing [A4R6I5], and an updated version was subsequently filed on the Registry pursuant to Condition 6 [A5J1R6, A5J1R7, A5J1R8, A5J3G5, A5J3G4]. TM made several commitments in direct response to Burnaby's concerns, as reflected in the Commitments Tracking Table.

(ii) The Project is in the Public Interest

58. The Board concluded in the NEB Report that the Project was in Canada's public interest and recommended the GIC approve the Project. As was stated by the Board:

To set the context for its recommendation, the overarching consideration for the Board's public interest determination was: can this Project be constructed, operated and maintained in a safe manner. The Board found the Project would meet this threshold. (p. xi of NEB Report)

59. The NEB Report, in assessing the public interest value of the Project also pointed to the fact that, "if constructed, the Project would approximately triple the capacity of the Trans Mountain Pipeline system in Western Canada" (p. xi of the NEB Report).

60. This increase in capacity indicated to the Board a significant economic benefit that would be realized throughout Canada, "particularly in British Columbia, Alberta, Ontario and Quebec". It was this national perspective that was critical in the Board's finding that the Project is in Canada's public interest. (p. xv of the NEB Report).

(iii) TM's Commitment regarding Municipal Bylaws

61. Regarding TM's commitment to comply with municipal bylaws, the NEB Report stated that:

Trans Mountain said that it anticipates engaging with municipal representatives, through the formation of technical working groups, to ensure that goals are respected and adhered to for long-term land development. Trans Mountain said it would apply for, or seek variance from, all permits and authorizations that are required by law, and would continue to work with all municipalities to understand the applicability of bylaws and standards related to the construction and operation of the Project [page 251].

Generally speaking, companies are expected to obtain any federal, provincial or municipal permits or authorizations required by those jurisdictions, and Trans Mountain has committed to comply with, or seek variance from, all municipal bylaws, including those involving noise [page 254].

62. Condition 2 requires TM to “implement all of the commitments it made in its Project application or to which it otherwise committed on the record of the OH-001-2014 proceeding.”

63. TM intends to fulfill all of its obligations, including: statutory requirements; the Conditions; and, its self-imposed and demonstrated commitment to sustainable development.

I. NEB Report Judicial Review Applications

64. In June 2016, Burnaby (and six other groups of intervenors) filed applications in the FCA for judicial review of the NEB Report (together, the “**NEB Report JRs**”). Burnaby's Notice of Application filed with the FCA is (**Exhibit 6**).

J. Ministerial Panel

65. On May 17, 2016, the Minister of Natural Resources (“**Minister**”) announced a three-member Ministerial Panel (“**Panel**”) tasked with re-engaging local communities and Aboriginal groups and reviewing feedback on the Project. The Government of Canada's (“**Canada**”) announcement of the Panel is attached as **Exhibit 7**.

66. To provide sufficient time for the Panel's work, Canada sought a four month extension of the GIC deadline for the Project, extending the date from August 2016 to December 2016. Canada clarified that it would: (i) undertake deeper consultations with Aboriginal peoples and provide funding to support their participation in the additional consultations; (ii) assess the upstream

greenhouse gas emissions associated with the Project and make this information public; and, (iii) appoint a representative to engage local communities and Aboriginal groups to seek their views and report back to the Minister. A copy of Canada's announcement dated January 27, 2016 is attached as **Exhibit 8**.

67. The Panel held a series of roundtable and town hall meetings in Alberta and BC between June and September, 2016. The Panel conducted eight meetings in Burnaby over three days, attracting more than 250 people. In total, the Panel held 44 public meetings attended by more than 2,400 Canadians, 650 of whom made direct presentations to the Panel, including input from 22 First Nations, four First Nation organizations and 15 self-identified First Nations presenters. The Panel also received and considered more than 20,000 emails and 35,000 responses to an online questionnaire (**Exhibit 9**). I understand from the Panel's report that Burnaby presented its views to the Panel (**Exhibit 9**).

68. On November 1, 2016, the Panel submitted its report to the Minister (**Exhibit 9**).

K. Order in Council P.C. 2016-1069 (the "OIC")

69. On November 29, 2016, the GIC issued the OIC. The OIC was published in the *Canada Gazette, Part I* on December 10, 2016, along with an Explanatory Note, a copy of which is **Exhibit 10**. The portion of the corresponding *Supplement to the Canada Gazette* regarding the Project contains over 500 pages of material. The OIC accepted the Board's recommendation that the Project will, if the Conditions are complied with, be required by the present and future public convenience and necessity under the NEB Act and will not likely cause significant adverse environmental effects under CEAA 2012. The Prime Minister's announcement of the Project approval, and Canada's news release of same, are attached as **Exhibits 11** and **12**, respectively.

70. On November 29, 2016, NRCan released its Project Summary, which summarized key information regarding the review of the Project. A copy of the Project Summary is attached as **Exhibit 13**.

71. On December 1, 2016, the Board issued the Certificate and Amending Orders AO-003-OC-2 and AO-002-OC-49, which allows TM to construct and operate the Project, subject to the Conditions [**A80871-3**].

72. Orders under ss. 44 and 58 of the NEB Act are also required for the construction and operation of the Project and were issued by the Board on June 6, 2016, subject to the GIC's approval of the Project. A copy of the Board's cover letter [A5C4Y8] and the ss. 44 and 58 Orders [A5C4Y8, A5C4Z0, A5C4Z2, A5C4Z4, A5C4Z6, A5C4Z8] are on the Registry. The Board's approval of TM's request to construct temporary sites prior to the approval of the detailed route for the Project was granted in Order XO-T260-007-2016 [A5C4Z0].

L. Judicial Review of the OIC

73. Nine groups of intervenors, including Burnaby, applied to the FCA for leave to judicially review the OIC. On February 22, 2017, the FCA granted leave to all nine groups. A copy of Burnaby's Application for Judicial Review filed with the FCA is attached as **Exhibit 14**.

M. Post-OIC Federal Approvals for Terminal Work

(i) Applications for Burnaby Terminal Modifications

74. In furtherance of the NEB-approved BT Expansion activities, TM made applications to the Board for the approval of the BTM, which are necessary to accommodate the BT Expansion.

Decommissioning Application

75. On January 25, 2017 TM submitted the "Application to Decommission Facility piping at Burnaby Terminal" to the Board ("**Decommissioning Application**" [A5I3X5]). The application's stated purpose was to:

"[...] Decommission selected portions of facility piping...and related ancillary infrastructure...at Burnaby terminal... Trans Mountain has identified select facility piping that would otherwise be in the way of the construction of TMEP tanks and associated infrastructure, and require removal or relocation." (page 3 of Decommissioning Application)

76. The Decommissioning Application mainly addressed facility piping at the Burnaby Terminal that is no longer required for the safe and efficient operation of the Pipeline. The affected pipelines were generally portions of certain delivery lines, tank lines, firewater and foam lines and utilities. The Decommissioning Application included information on:

- The general engineering of the proposed pipelines for decommission including the decommissioning schedule, outline of decommissioning activities, assessment of

potential hazards, contamination management, and proposed mechanisms of compliance with regulations, codes and standards

- Environmental and Socio-economic Assessment
- Economics of the decommissioning, including project cost and impact, shipper impact and provisions for abandonment
- Consultations, including public and Aboriginal consultation

77. Attached to the Decommissioning Application were four appendices:

- A. Existing Regional and Site Aerial Photos [A5I3X6]
- B. Proposed Piping Plan [A5I3X7]
- C. Environmental and Socio-Economic Assessment [A5I3X8]
- D. Decommissioning Checklist [A5I3X9]

78. The Environmental and Socio-Economic Assessment of the Decommissioning Application is a 102-page report prepared for TM by CH2M HILL Energy Canada, Ltd. Pursuant to Guide A.2 and K.3 of the NEB Filing Manual (<https://www.neb-one.gc.ca/bts/ctrg/gnnb/flngmnl/index-eng.html>), the level of detail contained in the report corresponds to the nature and magnitude of the anticipated environmental and socio-economic impacts. The report contains a detailed analysis of potential environmental impacts, including and in particular, the impact on vegetation (Table 5-1, p. 24 [A5I3X8]). The assessment highlighted potential effects such as the loss or alteration of isolated trees and shrubs and stated that the magnitude of the effect was low (p. 24).

79. Attached to the Environmental and Socio-Economic Assessment of the Decommissioning Application is “Appendix 1 – Environmental Protection Plan for the Trans Mountain Pipeline ULC Burnaby Terminal Facility Piping Relocation Project” (“**BTM EPP**”). The Decommissioning EPP proposed several mitigation measures, including the seeding and planting of seedlings or trees and shrubs (p. 31 of the BTM EPP).

80. On February 24, 2017, the Board submitted IR No. 1 on the Decommissioning Application (“**Decommissioning IR1**”) [A5J0T1]. Decommissioning IR1 requested information on the method of identifying and notifying potentially affected third parties, signage, the risk of

disturbance of crossings, confirmation regarding costs, and clarification on incorrect section references in the Decommissioning EPP.

81. On March 3, 2017, TM responded to Decommissioning IR1 [A5J2S5].

82. On April 20, 2017, by way of Order MO-021-2017, TM's Decommissioning Application was approved, subject to seven (7) conditions. They are reproduced as follows:

1. Trans Mountain shall comply with all of the conditions contained in this Order unless the Board otherwise directs

2. Subject to condition 5, Trans Mountain shall decommission and maintain the piping at Trans Mountain's Burnaby Terminal in its deactivated state in accordance with the specifications, standards, commitments made and other information referred to in its application or in its related submissions.

3. Trans Mountain shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations, procedures and its commitments for the protection of the environment included in or referred to in its application or in its related submissions.

4. Trans Mountain shall file with the Board, at least 15 days prior to commencing decommissioning activities, written confirmation that it has notified all potentially affected third parties of the Project at least 20 days prior to commencing decommissioning activities.

5. Within 10 business days prior to completing decommissioning activities, Trans Mountain shall file with the Board all technical specification updates for the Project. Technical specification updates are limited to difference in pipe length, and/or removal of other inactive infrastructure discovered during excavation activities that do not impact any other information provided in the Application.

6. Within 30 days of the date that the decommissioning is completed, Trans Mountain shall file with the Board a confirmation that the Project was completed in compliance with all applicable conditions in this Order. If compliance with any of these conditions cannot be confirmed, Trans Mountain shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is the accountable officer of Trans Mountain, appointed as Accountable Officer pursuant to s. 6.2 of the OPR.

7. Unless the Board otherwise directs prior to 20 April 2018, this Order shall expire on 20 April 2018 unless the Project has commenced by that date. [A5K5X9]

Piping Relocations Application

83. On January 25, 2017 TM submitted the “Burnaby Terminal Facility Piping Relocations” application to the Board (“**Relocations Application**”) [A5I3V9]. The application’s stated purpose was to request

[A]uthorization, pursuant to section 58 of the National Energy Board Act (“NEB Act”) to construct relocated facility piping and related infrastructure at Burnaby Terminal. (p. 1 Relocations Application)

84. Together, the Relocations Application and the Decommissioning Application reflect the scope of work required for the BTM.

85. The infrastructure affected by the Relocation Application includes certain delivery lines, tank lines, fire suppression system and utilities to allow for the construction of tanks and other infrastructure associated with the BT Expansion.

86. The Relocations Application contained information on:

- General engineering matters, including materials to be used for the pipelines, applicable acts, codes and regulations, and details of the relocation
- Environmental and Socio-Economic impact assessments
- Land matters including confining the relocations to existing land rights held by TM
- TM’s consultations with the public
- TM’s Aboriginal consultation

87. Attached to the Relocations Application was an ‘Environmental Interactions Table’ [A5I3W3]. The table summarized the information found in the Environmental and Socio-Economic Assessment report [A5I3W4] (“**Relocations ESA**”). The section on ‘Vegetation’, states:

Loss or alteration of vegetation during Project activities will be limited to where the relocated and decommissioned pipe segments cross vegetated drainages and isolated patches of trees and shrubs. While the cumulative effect on vegetation in the [local study area] may be of medium magnitude...Project-specific contributions are expected to be negligible. Consequently, the cumulative effect is not likely to be significant.

88. Attached to the Relocations ESA is the BTM EPP, which included seeding recommendations for disturbed lands (p. 32 Relocations EPP).

89. On February, 24 2017, the Board submitted IR No. 1 in relation to the Relocation Application (“**Relocation IR1**”) [A5J0S4]. Relocation IR1 requested information on the method of identifying and notifying potentially affected third parties, clarification on the scope of requested exemptions, and references in the Environmental Protection Plan.

90. On January 25, 2017, TM filed its response to Relocations Application IR1 [A5J2R9].

91. On April 20, 2017, by way of Order XO-T260-003-2017 [A5K5U3] the Board granted TM’s Relocations Application, and allowed the various exemptions requested. The approval was subject to seven (7) conditions, reproduced as follows:

1. Trans Mountain shall comply with all of the conditions contained in this Order unless the Board otherwise directs.

2. Subject to condition 5, Trans Mountain shall cause the approved Project to be designed, located, constructed, installed, and operated in accordance with the specifications, standards, commitments made and other information referred to in its application or in its related submissions.

3. Trans Mountain shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations, procedures and its commitments for the protection of the environment included in or referred to in its application or in its related submissions.

4. Trans Mountain shall file with the Board, at least 15 days prior to commencing construction activities, written confirmation that it has notified all potentially affected third parties of the Project at least 20 days prior to commencing construction activities.

5. Within 10 business days prior to placing the Project in service, Trans Mountain shall file with the Board all technical specification updates for the Project. Technical specification updates are limited to difference in pipe length, diameter, wall thickness, and/or pipe grade that do not impact any other information provided in the Application.

6. Within 30 days of the date that the approved Project is placed in service, Trans Mountain shall file with the Board a confirmation that the approved Project was completed and constructed in compliance with all applicable conditions in this Order. If compliance with any of these conditions cannot be confirmed, Trans Mountain shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is the accountable officer of Trans Mountain, appointed as Accountable Officer pursuant to s. 6.2 of the *National Energy Board Onshore Pipeline Regulations*.

7. Unless the Board otherwise directs prior to 20 April 2018, this Order shall expire on 20 April 2018 unless construction of the Project has commenced by that date.

92. In compliance with condition 4 and its associated activities, TM submitted an assessment of tree clearing activities and temporary road installation conducted by CH2M Hill Energy Canada Ltd. (“**ESA Addendum**”) on July 18, 2017 [**A5S6J4**]. The ESA Addendum states that the conclusions made in the Relocations ESA remain unchanged for the potential project effects and cumulative effects.

93. The ESA Addendum addressed the fact that updated construction activities included the removal of previously undisturbed vegetation and clarified that approximately 5.2 hectares of trees will be removed to support this relocation work. It also stated that the “timber cruise” method will be used to evaluate and document all trees scheduled for removal. While the Relocations ESA had not anticipated all of this tree clearing, the ESA Addendum concluded that the conclusions of the ESA remain unchanged for the potential Project effects and cumulative effects (p. 3-4 ESA Addendum).

(ii) Vancouver Fraser Port Authority Approval

94. TM required approval from the Vancouver Fraser Port Authority (“**VFPA**”) for a portion of WMT Expansion work.

95. In June 2017, TM submitted a project permit application for the WMT Expansion work to the VFPA. Attached is the summary section of the application (**Exhibit 15**).

96. On August 28, 2017, VFPA approved the application and granted TM Project Permit PER No. 15-322 (**Exhibit 16**).

(iii) Fisheries Act Authorization

97. Federal Condition 109(a) requires that, in the event that DFO determines that the WMT Expansion requires Authorization under paragraph 35(2)(b) of the *Fisheries Act*, RSC 1985, c F-14, TM must file with the NEB, at least 10 days prior to commencing works specified in the respective Authorization(s), a copy of that Authorization.

98. DFO determined that an Authorization was required for the WMT Expansion work. On February 6, 2017, TM submitted an application under the *Fisheries Act* to DFO for approval.

99. On September 8, 2017, DFO issued Authorization No.: 17-HPAC-00071 (“**FA Authorization**”) for the WMT Expansion work, subject to conditions. Trans Mountain filed the FA Authorization with the Board later that same day pursuant to Federal Condition 109(a) [A85941]. The FA Authorization describes the authorized activities and the serious harm to fish that is likely to result from the WMT Expansion work.

(iv) *Temporary Sites*

100. The Certificate and corresponding NEB orders define temporary infrastructure” as:

“[A]ll structures or sites necessary for pipeline, terminal and pump station construction, reactivation, deactivation, modification and expansion approved as part of the Project. Examples of infrastructure include construction camps, stockpile sites, contractor yards, laydown areas, temporary work space, borrow pits, roads, bridges, snow pads, and temporary power supply lines necessary for operating infrastructure and equipment during the construction phase [A5S6J3]”

101. Condition 60 requires TM to perform an environmental and socio-economic assessment of temporary construction land locations and infrastructure, and identify all associated mitigation measures. The assessment is subject to approval, before Condition 60 is met.

102. TM made four filings pursuant to Condition 60:

- (a) June 1, 2017 [A84130]
- (b) June 30, 2017 [A84762]
- (c) July 31, 2017 [A85227]
- (d) September 1, 2017 [A85798]

103. TM assessed the impacts and proposed mitigation measures in these filings for the KB Site.

104. On September 27, 2017 the Board approved TM’s filings pursuant to Condition 60 and sent a letter to TM stating that it was of the opinion that Condition 60 was met [A5U5S4].

105. Condition 61 requires TM to submit a complete list of all temporary infrastructure sites at least three months prior to commencing construction. The list must include information on each site's location, structures to be installed, the anticipated date for commencing construction, and activities involved in its construction (p. 449 NEB Report).

106. TM made two filings pursuant to Condition 61:

(a) June 1, 2017 [A84135]

(b) June 30, 2017 [A84762]

107. The June 1, 2017 filing included the KB Site. The Board has not provided feedback on these filings, but a response is anticipated in November 2017, pursuant to the Board's letter of October 13, 2017 [A5V5W5].

N. BC Oil and Gas Commission Approval

108. On March 1, 2017, TM applied to the BC Oil and Gas Commission ("BCOGC") for approval to change four streams under the *Water Sustainability Act* as part of the BT Expansion (**Exhibit 17**).

109. On October 16, 2017, the BCOGC issued TM the order requested under section 11 of the *Water Sustainability Act* (**Exhibit 18**).

O. Burnaby's Opposition to the Project

110. For several years, Burnaby's Mayor (Derek Corrigan) and representatives have publically stated that Burnaby:

- is staunchly opposed to the Project (**Exhibit 19**);
- will do everything it can to frustrate the Project (**Exhibit 20**);
- will continue to work to stop the pipeline, storage tanks and marine terminal docks associated with the Project from coming to Burnaby (**Exhibit 21**).

111. In August 2016, the Burnaby online newsroom published a statement from the Mayor that Burnaby "remains steadfastly opposed" to the Project (**Exhibit 22**). Subsequently, on November

19, 2016, the Mayor stated in a speech that “We will ensure that the Kinder Morgan Pipeline never goes through our community” (**Exhibit 23**).

112. The National Observer reported that the Mayor believed the permitting process was a legitimate method of slowing down the Project (**Exhibit 24**).

P. TM’s Applications to Burnaby for PPA’s

113. In furtherance of TM’s commitment to comply with municipal bylaws, TM applied for PPAs pursuant to the Zoning Bylaw. The conferral of a PPA is subject to compliance with various requirements imposed by Burnaby.

(ii) TM’s Applications to Burnaby for Permits under the Zoning Bylaw

114. Subsection 7.3(1) of the Zoning Bylaw states that “[a]ny person wishing to undertake a development shall apply for and receive [PPA] from the Director of Planning before the issuance of a building permit or a business license,” except in certain circumstances. A copy of Section 7 of the Zoning Bylaw is attached as **Exhibit 25**. The defined terms are included in Section 3 of the Zoning Bylaw, which is attached as **Exhibit 26**.

115. Under subsection 7.3(2) of the Zoning Bylaw, a PPA application must be supported by information regarding landscaping.

116. Subsection 7.3(3) of the Zoning Bylaw provides that “[w]hen such application for development conforms to the provisions of this Bylaw and does not contravene any approved land use or road plan, preliminary plan approval shall be given by the Director of Planning.”

117. I have been informed about TM’s efforts to comply with the Zoning Bylaw by External Relations Manager for KMC, Lexa Hobenshield, and based on that information and the related documents that I’ve reviewed, I understand the chronology of the PPA application process to date to be as follows:

- (a) On April 4, 2017, TWG meeting with Burnaby officials. At that meeting, Mr. Dipak Dattani, Deputy Director of Engineering for Burnaby, requested TM officials direct any permit applications to Burnaby through the TWG meetings. A copy of the minutes from this meeting are attached as **Exhibit 27**.

- (b) On May 9, 2017, Burnaby sent a letter to TM requesting clarification on whether TM intended to apply for any permits from Burnaby (**Exhibit 28**).
- (c) On May 30, 2017 TM sent a letter to Burnaby indicating that it would “submit PPAs to the City which demonstrate that we have complied with Burnaby’s bylaws. Only in the unexpected case of a conflict between federal law or the need to apply for a variance as directed, by the NEB, would clarification be required.” (**Exhibit 29**)
- (d) On June 2, 2017, Laurie LeHingrat of Burnaby sent an email to the TM general information email address confirming receipt of the PPA Applications, and advising that Burnaby “expect[s] to review the documents and advise [TM] about the [PPA] application / submission requirements sometime next week” (**Exhibit 30**)
- (e) On June 8, 2017 Burnaby sent an email to TM stating that the documents in support of the PPA application relating to the KB Site, were insufficient to meet the PPA submission requirements. The email enumerated the deficiencies of the application, and what would be required in order to satisfy the requirements of a complete PPA submission (**Exhibit 31**).
- (f) On June 16, 2017, TM submitted PPA Application No. 17-00165 in relation to the KB Site (“**KB Application**”) and paid a \$750.00 fee (**Exhibit 32**).
- (g) On June 23, 2017, TM submitted PPA Application No. 17-00173 in relation to the WMT and paid a \$89,500.00 fee (**Exhibit 33**).
- (h) On June 23, 2017, TM submitted PPA Application No. 17-00172 in relation to the BT Expansion and paid a \$1,032,500.00 fee (**Exhibit 34**).
- (i) On June 27, 2017, TM Submitted PPA Application No. 17-00178 in relation to the BTM (“**BTM Application**”) and paid a \$37,500.00 fee (**Exhibit 35**).
- (j) On September 1, 2017, TM submitted its first revision of the BTM Application (**Exhibit 36**).

- (k) On October 16, 2017, TM submitted its second and final revision of the BTM Application (**Exhibits 37 and 38**). KB Application, PPA 17-00173, PPA 17-00172 and BTM Application are collectively referred to as the “**PPA Applications**”.
- (l) On June 8, 2017, Burnaby advised TM that the information provided in the KB Application package was insufficient and all PPA applications “must be made in person at the Planning Department”. Burnaby further provided a summary of PPA requirements (**Exhibit 31** same as in para 117 (e)).
- (m) On June 21, 2017, having not received a response from Burnaby on the BTM Application, TM representatives attended the Burnaby Planning Department to enquire about its status. Planning Department officials advised that they were “too busy” to consider the BTM Application, but that a response would be provided no later than June 27, 2017. Burnaby Planning Department officials further advised TM not to submit additional information for the BTM Application (similar to the additional information submitted for the KB Application) as failure to wait for an official response or request directly from Burnaby may lead to “rework and delay”.
- (n) On June 26, 2017, TM received an email from Burnaby indicating that the information provided in the BTM Application was insufficient and identified required drawings and documents to be provided (**Exhibit 39**).
- (o) On June 27, 2017, TM representatives attended at the Burnaby Planning Department and provided officials with additional and updated information to meet the PPA requirements as requested by Burnaby (**Exhibit 40**).
- (p) On July 5, 2017, TM representatives attended a TWG meeting with Burnaby officials. The Burnaby officials stated their administrative process for processing permit approval applications is uninfluenced by elected officials and that the timeline for processing a “complex application” such as the BTM Application was typically six to eight weeks and that the BTM Application may take a little bit more time. TM was assured that it would not be treated differently from other applicants. Minutes from the meeting are attached as **Exhibit 41**.

- (q) On July 20, 2017, TM received an email from Burnaby stating that Burnaby “does not have resources to process all PPAs simultaneously”. This was the first time TM received any indication from Burnaby that multiple PPA applications would not be processed at the same time (**Exhibit 42**).
- (r) On July 21, 2017, TM sent a letter to Burnaby requesting Burnaby respond to TM’s BTM Application by no later than July 26, 2017 (**Exhibit 43**), approximately eight weeks following formal submission of the BTM Application.
- (s) On July 26, 2017, Mr. Dattani responded to TM’s letter and stated that Burnaby was “working diligently to review the BTM Application” and confirmed the review would be uninfluenced by elected officials or Burnaby’s position on the overall Project before the NEB or the courts (**Exhibit 44**).
- (t) On August 4, 2017, TM sent a letter to Burnaby to address numerous factual errors in Burnaby’s letter dated July 26, 2017 (**Exhibit 45**).
- (u) On August 9, 2017, Burnaby provided comments on several of TMs PPA Applications and other permitting requests and requested, via email to TM’s contractor, additional information and revised drawings in relation to the BTM Application (**Exhibit 46**).
- (v) On September 1, 2017, TM’s contractor responded to the August 9, 2017 email from Burnaby and provided the requested information and drawings in relation to the BTM Application (**Exhibit 36** from para 117(j)).
- (w) On September 13, 2017, TM sent a letter to Burnaby outlining some of the challenges it has experienced with the PPA Application review process to date and offering to meet regularly with Burnaby’s permit review team (**Exhibit 47**).
- (x) On September 18, 2017, TM received a reply to its September 13, 2017 letter from Mr. Dattani of Burnaby. Mr. Dattani indicated that TM’s concerns are “better discussed at TWG” meetings and that “[t]he City of Burnaby has a regulatory responsibility in assessing all permit applications, and we ask that you respect our

process, and the commitment to move forward in a professional manner” (**Exhibit 48**).

- (y) On September 28, 2017, TM and its contractor met with members of Burnaby’s administration to discuss the BTM Application in order to get a better understanding of the remaining outstanding issues (**Exhibit 49**).
- (z) On October 16, 2017, TM’s contractor submitted additional information and revised drawings in relation to the BTM Application (**Exhibits 37 and 38** same as para 112(k)).

118. On October 11, 2017, TM sent a letter to the Board requesting that it approve a proposed detailed route on TM’s lands at the Burnaby Terminal and WMT, specifically in relation to the Burnaby Mountain Tunnel Portals (“**Portal Lands**”) [A5V7V6]. Burnaby objected to this request, arguing that approving the Portal Lands would prejudice Burnaby in its own detailed route hearings. In support of its position, Burnaby addressed the fact that TM would be required to obtain PPAs from Burnaby for developments. Burnaby suggested that advanced approval of TM’s request by the Board would therefore not be material in TM’s construction schedule, because TM would still have to comply with Burnaby’s PPA process.

(iii) TM’s Applications to Burnaby for Permits under the Tree Bylaw

119. Compliance with Burnaby’s bylaws in accordance with the PPA Application includes compliance with Burnaby’s Tree Bylaw. The Tree Bylaw requires a ‘tree plan’ for every tree cutting application, which includes many requirements such as providing information on the location and diameter of each protected tree to be removed, and identifying which trees are to be removed (see Burnaby Tree Bylaw attached as **Exhibit 50**).

120. Section 12(b) of the Tree Bylaw however, allows the Director of Planning to exempt an application from needing a tree plan and all it entails “where the Director of Planning is satisfied that such trees can be readily identified on the site from other information provided by the applicant”.

121. On June 27, 2017, TM received an email from Burnaby that its documents originally sent on June 2, 2017 in support of the BTM Application were insufficient. Contained in the email was a reference to TM's proposed "timber cruising" method. Burnaby did not refer to the "timber cruising" method as a deficiency in TM's application, but did acknowledge the method as part of TM's proposed plan of action for the BTM (**Exhibit 39**).

122. On June 27, 2017, TM sent a revised BTM Application in compliance with Burnaby's PPA Application Requirements (**Exhibit 35** same as para 117 (i)).

123. On August 9, Burnaby provided its first round of official comments regarding the BTM Application. There was no mention of TM's use of the "timber cruise" methodology (**Exhibit 51**). As stated above, TM responded on September 1, 2017 (**Exhibit 36** same as para 117(j)).

124. On September 19, 2017, TM received an email from Burnaby, forwarded from an email originally sent on August 1, 2017 from Burnaby Landscape Technician Geoff Gooderham. Mr. Gooderham's email noted TM's proposal to utilize a "timber cruise" methodology in order to fulfill the Burnaby Tree Bylaw. In this email, Mr. Gooderham stated that "while the methodology is commonly used in the forest industry and may provide a reasonably accurate estimation for the number of trees to be removed, it was not supported by the Burnaby Tree Bylaw" (**Exhibit 52**).

125. In the same email, Mr. Gooderham stated that section 12(b) of the Burnaby Tree Bylaw allows the Director of Planning to exempt an application from the strict requirements of the bylaw, "where the Director of Planning is satisfied that such trees can be readily identified on the site from other information provided by the applicant" (**Exhibit 52** same as in para 124).

126. On September 1, 2017, TM sent a letter to Burnaby requesting a variance from the Burnaby Tree Bylaw pursuant to subsection 12(b) ("**Tree Exemption Request**") (**Exhibit 53**).

127. On September 28, 2017 TM attended a meeting at Burnaby with Ms. Malaysz. At the meeting, TM asked for a status update regarding the Tree Exemption Request. Ms. Malaysz replied that she was unable to provide an update (**Exhibit 54**).

128. On October 4, 2017, another meeting was held between TM and Ms. Malaysz. Again, TM requested an update regarding the Tree Exemption Request. Again, Ms. Malaysz replied she was unable to provide one. Minutes of this meeting are attached as **Exhibit 54** (Same as para 127).

129. On October 6, 2017 TM sent a letter to Burnaby, outlining the initial Tree Exemption Request and the meetings, and requested a decision upon receipt of the letter (**Exhibit 54** same as para 127).

130. On October 10, 2017, Lou Pelletier of Burnaby's Planning and Building Department replied that he did not find a supportable basis for variance of the requirements of the Tree Bylaw. As such, Burnaby denied the Tree Exemption Request (**Exhibit 55**). No further reasons were provided by Burnaby.

(iv) TM's Applications to Burnaby for Permits under the Streamside Protection and Enhancement Area Bylaw

131. On October 16, 2017 and as part of the second revision of the BTM Application, TM submitted an Ecological Assessment, which contained the assessment and calculation of Streamside Protection and Enhancement Areas ("SPEA") pursuant to section 6.23 of Burnaby's Zoning Bylaw (**Exhibit 37** and **38** same exhibit as referenced above) and submitted revised architectural drawings which show SPEA boundaries on several of the drawings.– Around this time I was also advised by our engineering consultants that the SPEA calculation confirmed that the works proposed by the BTE PPA Application would be located in the SPEA.

(v) TM's Applications to Burnaby for the WMT Expansion and KB Site

132. In an email dated October 16, 2017, Burnaby informed TM that the KB site buildings were not considered temporary buildings, but permanent buildings from a PPA perspective (**Exhibit 56**).

133. On September 19, 2017, TM received an email forwarded from Mr. Gooderham, stating that the "timber cruise" method proposed for the WMT Expansion and KB site in furtherance of TM's PPA Applications, were insufficient to meet the Burnaby Tree Bylaw (**Exhibit 54** same as para 127).

134. In a letter dated October 17, 2017 TM acknowledged comments received from other Burnaby departments on the WMT PPA Application and KB Applications (**Exhibit 57**).

(vi) Burnaby's Rejection

135. To date, Burnaby has yet to approve any of the PPA Applications, provide any further zoning comments, issue any permits or exemption requests in relation to the Project or the Terminal Work.

Q. TM Notification regarding BTM Work

136. On July 26, 2017, TM provided written notification to all potentially affected third-parties of its intention to proceed with the BTM activities authorized by NEB Orders XO-T260-003-2017 and MO-021-2017. A copy of that letter is attached as [A5S6J3]. A notification and newsletter hand delivered or emailed to local neighbours and Burnaby staff are attached as **Exhibits 58 and 59**.

137. On July 28, 2017, TM notified the NEB of the Burnaby relocation start, in compliance with Condition 4 [A85199].

R. Prejudice from Delay of Project Execution

138. The potential direct financial harm to TM and third parties from delay in Project construction is enormous. However, it is impossible to precisely quantify potential harm at this stage due to variables in, among other things, the construction process. Accordingly, the potential harm described herein is based on TM's estimates, assumptions and projections as of today's date and is likely to change as the construction schedule progresses, and with any material development related to the construction.

139. *Financial Harm to the Local, Provincial and Federal Economy:* Construction and operation of the Project will provide substantial economic and fiscal benefits to involved parties, to Canadian production, and to all Canadians and their governments. Based on material previously filed with the board, the construction phase would generate a total of \$1.2 billion in federal and provincial government revenues [A3S0Q7, p. 1-85]. Construction of the Project will inject upwards of \$6.8 billion in capital expenditures into the Canadian economy. The construction of the Project would support over 58,000 person-years of direct and indirect employment generated

across Canada. The operations phase of the Project, over its first 20 years of service, is expected to generate \$3.3 billion in combined federal and provincial revenues. Delays will postpone and/or reduce these benefits.

140. Based on information received from Mr. Kevin Ainsworth, Senior Project Controller for the Project at TM, I understand that if the In-Service Date is not met, TM will suffer serious prejudice (the exact particulars of which are impossible to define at present) including, but not limited to:

- (a) ***Direct financial harm to TM:*** Based on current estimates, it is projected that, for each month of delay to the Project, TM will incur direct costs ranging from \$30 million (“M”), to \$35M, related to corporate support, salaries, professional fees, third party fees, travel, office and overhead, suspension or cancellation of vendor or supplier contracts, management and security of materials already ordered and insurance or financing. Additionally, based on current estimates, projected loss of revenue to TM due to the delay in Project start-up is likely to exceed \$90M per month of delay.
- (b) ***Postponement of Key Project timelines:*** A delay of the Project will result in the postponement and rescheduling of key Project timelines, which are affected by critical timelines for the ordering, delivery and construction of essential Project components. The timely execution of the Project is contingent on TM’s ability to maintain its Schedule.
- (c) ***Inability to Meet Contractual Requirements:*** TM requires the Project to be completed by the In-Service Date to increase capacity and meet shippers’ contractual firm service requirements. These shippers include some of Canada’s largest oil sands developers. Without the Project in-service, there is significant potential for continuing service interruptions and curtailments.
- (d) ***Workforce Loss:*** Construction contractors have been engaged, and their respective contracts have been negotiated, on the premise that the In-Service Date is met. Delays in the Schedule increase risks of losing key parts of the workforce and there

is no certainty that contractors will be available in the future. This would compromise TM's ability to complete construction and would likely result in additional costs to TM.

- (e) ***Potential failure of the Project:*** A delay of an indeterminate nature will create uncertainty regarding the Project's future and the In-Service Date of the Project, potentially resulting in the failure of the Project.

141. Based on information filed by TM with the National Energy Board during the public hearing process for the Project and input from Scott Stoness, Vice-President of Regulatory and Finance at KMC, I understand that failure to meet the In-Service Date may also harm third parties, including as follows:

- (a) ***Demand not Met:*** The Project has significant commercial support and has already received approval of its toll methodology from the NEB. TM's shippers for the Project are comprised of some of the largest energy companies in Canada and the world. TM has signed long-term firm transportation contracts of 15 and 20 years with 13 shippers, for a total volume of 707,500 barrels per day. If the Project does not meet its In-Service Date, these shippers may need to find alternate, and potentially higher cost, transportation options for this production to other markets.
- (b) ***Termination or Suspension of Contracts for Goods and Services:*** There is a significant risk that contracts for goods and services related to construction will be suspended or terminated, the costs of which will be borne in part by third-party vendors, service providers, and their employees. This will result in a loss of employment and other opportunities for residents of Canada. Contracts at risk include contracts with Aboriginal and non-Aboriginal businesses.

