Trans Mountain Pipeline ULC
Trans Mountain Expansion Project
NEB Hearing Order OH-001-2014
Responses to Information Request from
Shauna Dennert

General Route

1.1 The location of the proposed Trans Mountain Pipeline Project Study Corridor (Project) at the Shell Burnmount Tank Farm (Shell TF) and Shell Burmount Terminal (Shell BT) on Underhill Avenue, Burnaby

Reference:

A3S1A4, Application Volume 4A Part 1, Appendix 9, Proposed Line 2 Route Maps, Drawing Number 19731-8013-0038, Sheet 54 of 54, Reference Kilometres 0 and 1178-1179

Preamble:

The proposed Project crosses through the Shell TF and Shell BT on its way to the Trans Mountain Tank Farm according to the Reference

Request:

a) Please confirm whether or not Trans Mountain has had discussions or correspondence with Shell Canada regarding the Project route utilizing the Shell TF and BT properties.

a.1) Please provide details as to Shell Canada's position for or against Trans Mountain utilizing the Shell TF and BT properties for the Project, the basis and rationale taken by Shell Canada for that position, and who represented Shell Canada and Trans Mountain (names and titles) in those discussions and correspondences.

a.2.) Please give details as to how and from whom (name and title) Trans Mountain will obtain permission to utilize the Shell TF and BT properties.

a.3.) Please provide details as to whether Shell Canada will have to move/change any of their equipment, tanks, pipelines, parking lot, buildings, roadways to accommodate the Project.

a.4.) Please confirm as to whether there will be any compensation from Trans Mountain to Shell Canada for utilizing the Shell TF and Shell BT properties for construction, operation and maintenance of the Project, and please provide details as to what type of compensation.

a.5.) If there have not been any discussions or correspondence with Shell Canada, regarding Trans Mountain utilizing the Shell TF and BT properties please provide an explanation as to why not.

b) Please confirm whether or not Trans Mountain currently or has in the past utilized Shell Canada properties in British Columbia for pipeline or tank farm operations.

b.1.) Please include location; type of access Trans Mountain has to those properties, type of compensation Trans Mountain gives Shell Canada for utilizing Shell Canada properties.

b.2.) If Trans Mountain has access to Shell Canada properties in British Columbia, but provides no compensation for access, please detail why not.

Response:

a) Trans Mountain representatives have had preliminary discussions with Shell Canada regarding general routing for the TMEP, and to seek permission to complete the necessary field surveys required for the NEB application. No further discussions have occurred.

b) This information request is not relevant to one or more of the issues identified in the National Energy Board's List of Issues for the Trans Mountain Expansion Project.

Impact on landowners and land use

1.2 Shell Burmont Tank Farm (Shell TF) and its right-of-way/easement/greenbelt (greenbelt) on Underhill Avenue

Reference:

i) A3S1A4, Application Volume 4A Part 1, Appendix 9, Proposed Line 2 Route Maps, Drawing Number 19731-8013-0038, Sheet 54 of 54, Reference Kilometres 0 and 1178-1179
ii) Trans Mountain Expansion Project email May 1, 2014 @ 4:12pm of the Trans Mountain Today newsletter, first issue. This issue states "Following construction, Trans Mountain's objective is to return the right-of-way to preconstruction condition, to the extent possible."

Preamble:

I live in Burnaby BC, owning a home with my husband that is adjacent/ immediately west of the Shell TF. Our back yard fence abuts the Shell TF and its greenbelt. We bought our property 23 years ago and fell in love with the very private backyard afforded us by the greenbelt. We were not concerned at the time of purchase of living next to two tank farms as there were no plans to expand/change the two tank farms that we, friends in the neighbourhood or close neighbours were aware of.

The Project boundaries encompass the Shell TF. Thus, the proposed pipeline could be within 0-300 metres of our property. The Trans Mountain Tank Farm and the proposed addition of 13 tanks could be within 1 kilometre of our Home.

This greenbelt, as our family refers to it, runs behind approximately 24 private properties, in our Forest Hills Properties subdivision. That greenbelt is approximately 50 metres wide and is full of brush (approximately 2-4 metres in height), ferns and very tall trees (approximately 30+ metres in height). This greenbelt buffers us from visual and noise impacts of the Shell TF tanks, pipes and trucks.

That greenbelt also contains a variety of wildlife. This includes but is not limited to: birds - Bald eagle, Great Blue Heron, crow, robin, chickadee, Northern Flicker, bushtit, Junco; mammals - coyote, fox, lynx, rabbits, raccoon, squirrel, shrew; amphibians - tree and water-based frogs; reptiles - garter snake; invertebrates - slug, snail; insects - dragon fly, butterfly, damsel fly, ladybug, bees.

Our family is concerned that the greenbelt may be removed and a pipeline, containing diluted bitumen, would be very close to our property. The removal of the greenbelt would destroy the habitat of hundreds of wildlife. We, also, believe additional tank and pipeline construction and operations would greatly diminish our enjoyment of our home and backyard, imperil the lives of wildlife, reduce property values and risk our home and property to Trans Mountain pipeline/tank farm leaks/spills.

Request:

a) Please confirm whether the greenbelt will be removed in part or in its entirety? If removed in part or its entirety, please give details as to:
   a.1) Why it is necessary to remove the greenbelt.
   a.2) Would you replace the greenbelt once construction is over. If not, explain rationale for not doing so.
   a.3) What will the space that the greenbelt now occupies be used for during and after construction of the Trans Mountain proposed pipeline.
   a.4) What is "to the extent possible" from your newsletter mean.
   a.5) What will Trans Mountain specifically do to return the greenbelt, with the current brush, very tall trees AND wildlife, to preconstruction conditions, in order that we not see, hear, smell the pipeline, its operation or maintenance nor the Shell TF tanks, roadways, trucks and above ground pipes; and so that we can again enjoy the wildlife and vegetation we see and hear in the current greenbelt.
   a.6) Please provide details as to what vegetation you would use to replace the greenbelt to preconstruction conditions, and the steps you would take to reintroduce the wildlife to the current greenbelt space.

I was not impressed by one of Trans Mountain Finance personnel who told me at a Trans Mountain Open House this year that the greenbelt would be planted and grow back eventually - · I won't live another30 - 100 years to see that!

Response:

a) a.1) Trans Mountain recognizes the importance of the treed buffer area to the residents of the Meadowood subdivision. Trans Mountain has submitted updated route maps for the City of Burnaby as part of the response to the first round of NEB IRs. The new proposed corridor is shown on map 54 of 54 in response to NEB IR No. 1.84a (NEB IR No. 1.84a – Attachment 1).

As part of detailed engineering and design, routing refinements are ongoing in this area. In determining detailed routing in this area, and finalization of the pipeline centerline and right-of-way, Trans Mountain's aim is to minimize potential impacts to the greenbelt and if possible, to avoid it entirely by making as much use as possible of an existing access road on the Shell property. Construction planning will also include a review of construction techniques that can be adapted for work in a narrower workspace.

It is anticipated that there will be some minor impact to the greenbelt area during construction with removal of brush, but both Trans Mountain and Shell are motivated to maintain the mature trees where practical. Trans Mountain will only remove trees that impact Trans Mountain's ability to ensure construction safety for workers and the public.

Should the greenbelt be affected by pipeline construction, Trans Mountain would implement restoration of lands to pre-existing conditions to the extent possible,

including landscaping where doing so will not compromise the Project's operational requirements or conflict with other laws or regulations governing the Project. Restoration would include replacing footpaths, restoring habitat, improving water crossings or bettering migration corridors. Reclamation efforts could also include the establishment of native plant and grass species, riparian and wetland areas, wildlife habitats and any other areas disturbed during construction.

Trans Mountain is committed to industry accepted best practices in reclamation, and has been a recognized industry leader with the restoration completed for the Anchor Loop Project through Jasper National Park and Mount Robson Provincial Park. Trans Mountain also has considerable experience in the urban environment with a long standing encroachment removal program which requires close collaboration with individual landowners to develop mutual solutions. As with all of its construction projects, Trans Mountain is committed to reclaiming any areas affected by the proposed Project, including pipeline rights-of-way and surrounding areas.

All restoration work will be conducted in accordance with the Environmental Protection Plan as set out in Application Volume 6B, Pipeline Environmental Protection Plan, Section 8.0.

Prior to planning any restoration activities, Trans Mountain would seek input from both the landowners and neighbouring residents.

a.2) Please refer to the response to Dennert S IR No.1.2a.1.

a.3) Please refer to the response to Dennert S IR No.1.2a.1.

a.4) Please refer to the response to Dennert S IR No.1.2a.1.

a.5) The question is based on a number of assumptions regarding the Trans Mountain Expansion Project that are incorrect. To clarify,

- The proposed pipeline will be buried underground and will therefore not be visible.
- While in operation the pipeline itself does not make any discernible noise.
- There are no smells from a pipeline in operation. Odors associated with pipeline operations typically only occur at pump stations, trap facilities and other above-ground installations, none of which are planned for the area within the Shell Tank Farm.
- With regard to maintenance, the only activity that will normally be visible is clearing of brush above and adjacent to the pipeline to allow access in case of maintenance.

Specific details regarding the restoration in this area have yet to be determined. However, as was discussed in the response to Dennert S IR No. 1.2a.1 Trans Mountain is committed to ensuring that the right-of-way is restored to pre-construction conditions to the extent possible. Details regarding the process for

determining restoration plans are outlined in the response to Dennert S IR No. 1.2a.1.

a.6) Please refer to the response to Dennert S IR No. 1.2a.1. Detailed reclamation planning has not yet been completed, therefore, Trans Mountain cannot comment on the type of vegetation that would be used during the reclamation phase of the Project or how disturbed wildlife habitat would be restored.

Safety and security and spill response

1.3 Trans Mountain's Safety, Security and Spill Response

Reference:

i) A3S4W6, Application Volume 7, Appendix C, Overland and Stream Flow Modeling of Potential Full-Bore Rupture Release, Page 97 of 97
ii) A3S1A4, Application Volume 4A Part 1, Project Design and Execution, Appendix 9, Proposed Line 2 Route Maps, Drawing Number 19731-8013-0038, Sheet 54 of 54, Reference Kilometres 0 and 1178-79

Preamble:

I live within 500 metres of the Burnaby Terminal Tank Farm and could potentially live within 50 metres of the proposed pipeline as it traverses the Shell Burmount Tank Farm on Underhill Avenue in Burnaby.

I also travel east along Broadway, Underhill and Eastlake Streets, under the Gaglardi overpass at Eastlake and Loughheed Highway to access work, shopping and leisure activities.

In other words, I would live my life at the convergence of 2 proposed major hydrocarbon construction, transportation and storage activities.

I think I am 'hooped' (a stronger word comes to mind), in terms of how your Project will impact my life.

Request:

a) Please provide a list of spills/leaks/Full Bore Rupture Releases (FBRR) of any size that have occurred involving Trans Mountain/Kinder Morgan (Trans Mountain) facilities in Burnaby, in the past 10 years.

Please provide the following information on each FBRR:

a.1) The type of hydrocarbons
a.2) When each FBRR occurred
a.3) Where each FBRR occurred
a.4) How much hydrocarbon was released in each FBRR
a.5) How much hydrocarbon was recovered in each FBRR
a.6) Details as to where unrecoverable hydrocarbons are now in each FBRR
a.7) Why did each FBRR occur
a.8) Who was responsible for each FBRR (e.g. company, job title/duty--I don't need names of specific persons)
a.9) Who does Trans Mountain have to notify in the event of a FBRR in Burnaby, and how soon after a FBRR is Trans Mountain required to notify those agencies and the general public.
a.10) How soon after each FBRR DID Trans Mountain report to the required agencies

a.11) What FBRRs have you relied on the general public to notify Trans Mountain of a FBRR
a.12) Were any evacuations of people, equipment or wildlife required at the time of each FBRR.
a.13) Who carries out the evacuations after a FBRR
a.14) Who was responsible for cleanup in each FBRR
a.15) Who paid for the cleanup in each FBRR
a.16) Did the City of Burnaby and its taxpayers (including me) have to pay for any of the cost of the cleanup in each FBRR
a.17) What resources of the City of Burnaby did Trans Mountain require in order to cleanup each FBRR (including, but not limited to traffic control near a FBRR, emergency responders at a FBRR, Engineering Department input)
a.18) How long did the cleanup take at each FBRR
a.19) Was there property damage at each FBRR
a.20) In terms of cost, how much property damage at each FBRR
a.21) Who compensated landowners/businesses for property damage?
a.22) Was Trans Mountain fined/disciplined in each FBRR, provide details as to how much, type of discipline and by whom
a.23) Details as to the environmental impact (land, water, air, wildlife) of each FBRR
a.24) What changes in policies/procedures/emergency plans has Trans Mountain implemented after those FBRRs? If there have been no changes, give the rationale for not changing your policies/procedures/emergency plans.

b) Please provide details as to how much hydrocarbons is expected to be released in a FBRR at Reference Kilometre 1179, as I live there; and from a Burnaby Terminal (Reference Kilometre 0) FBRR into Eagle Creek, the Burnaby Mountain Golf Course and Forest Hills Properties subdivision.c)

c) Please provide your best-case response time to stop a spill in a FBRR at Reference Kilometres 1179 and 0 (RK 1179 & 0).

d) Please explain whether evacuations of homes, schools, business and recreational areas would be ordered in the event of FBRRs at RK 1179 & 0.

e) Please provide details as to who (name and/or job title) is responsible for:

e.1) Ordering the evacuations.
e.2) Notifying the affected public of the evacuations.
e.3) Carrying out the evacuations
e.4) Providing assistance to the public to evacuate.

f) If there are no evacuations required in the event of a FBRR at RK 1179 & 0, explain why not.

Response:

a) Response for a.1 to a.13:

Please refer to the responses to Eliesen M IR No 1.10a and NEB IR No. 1.70a. Trans Mountain Pipeline has not experienced a full bore rupture release in the last 10 years. A full bore rupture release is defined as a complete cross-sectional break in the pipe. Local emergency services are responsible for carrying out evacuations.

a.14) Please refer to the responses to Dennert S IR No. 1.3a.1 to 1.3a.13.

a.15) Please refer to the responses to Eliesen M IR No. 1.10a and NEB IR No. 1.70.

a.16) Please refer to the response to Eliesen M IR No. 1.10a.

a.17) Please refer to the responses to Dennert S IR No. 1.3a.1 to 1.3a.13.

a.18) Please refer to the responses to Dennert S IR No. 1.3a.1 to 1.3a.13.

a.19) Please refer to the response to Eliesen M IR No. 1.10a.

a.20) Please refer to the response to Eliesen M IR No.1.10a.

a.21) Please refer to the response to Eliesen M IR No.10.1a.

a.22) Trans Mountain has only had one spill, which was not a full bore rupture release, in the last 10 years that resulted in a fine. Specifically, Trans Mountain was fined $1,000, along with two City of Burnaby contractors who were also fined $1,000 each, for introducing waste into the environment, in relation to the third party strike to the Westridge delivery pipeline on July 24, 2007.

a.23) Please refer to the responses to Dennert S IR No. 1.3a.1 to 1.3a.13.

a.24) Please refer to the responses to Dennert S IR No. 1.3a.1 to 1.3a.13.

b) Trans Mountain is not familiar with the term FBRR, however in the context of your question this is taken to mean a full bore rupture. Trans Mountain does not 'expect' to release hydrocarbons in a full bore rupture anywhere along the Trans Mountain route, and is taking measures well beyond meeting minimum code requirement to prevent that scenario from happening. Trans Mountain's commitment to a risk-based design, as described in the response to City Burnaby IR No. 1.07.14r is a rigorous design process that seeks to enable designers to be informed of principal risks along the pipeline route, and to pre-emptively employ risk mitigation measures to prevent spills and the consequences associated with such spills.

For the purposes of the risk assessment that will support the risk-based design process, Trans Mountain has employed assumptions involving a most credible worst-case scenario, in which full-bore releases along the pipeline right-of-way are modeled. The outflow modeling results of those analyses are presented by pipeline location in Appendix B, Volume 7 of the Application.

c) A report of a release related to the Trans Mountain terminals or pipelines received by our control centre would result in the immediate shut down of pumps, closure of valves, and dispatch of field operations personnel to investigate the report. Time required for drain-down of the pipeline following the shut down is dependent on a number of factors including topography of the location relative to the upstream and downstream pipeline.

Trans Mountain believes that appropriate and credible information on oil spill modeling has been included with the Application (Sections 6, 7 and 8 of Volume 7) to enable the appropriate level of risk assessment and allow risk informed decision making related to the application.

d) In the low probability event of a spill, the Trans Mountain Emergency Response Plan will be activated (refer to Section 4.0 of Volume 7) and municipal, provincial and federal authorities who have the legislated responsibility for public safety and health will be notified.

KMC does not have the authority to order evacuation, or conduct the evacuation of public or private places, nor does it have the authority to close roads, redirect traffic, public transit and other transportation related infrastructure. KMC anticipates working collaboratively with the local first responders through an Incident Command System (ICS) structure to coordinate these and other activities in the unlikely event the need arises.

Also refer to the response to City Surrey IR No. 1.4f.

e) Please refer to the response to Dennert S IR No. 1.3d.

f) Please refer to the response to Dennert S IR No. 1.3d.