

National Energy
Board



Office national
de l'énergie

DECISION

File OF-Fac-Oil-T260-2013-03 16
29 June 2018

Mr. John Richardson
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Avola, BC V0E 1C0

Mr. Robert McMahon
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Dear Mr. Richardson, Mr. McMahon, Mr. Stoness and Mr. Denstedt:

**Trans Mountain Pipeline ULC (Trans Mountain)
Trans Mountain Expansion Project - Certificate OC-064
Decision for Detailed Route Hearing MH-078-2017
Mr. John Richardson and Mr. Robert McMahon**

1. Background

On 19 May 2016, the National Energy Board (NEB or Board) issued its Report recommending that Governor in Council (GIC) approve the Trans Mountain Expansion Project (TMEP), subject to 157 conditions ([A77045](#)).

The TMEP included twinning the existing 1,147 kilometre long Trans Mountain Pipeline (TMPL) system in Alberta (AB) and British Columbia (B.C.) with approximately 981 kilometres of new buried pipeline; new and modified facilities, such as pump stations; additional tanker loading facilities at the Westridge Marine Terminal in Burnaby; and reactivating 193 kilometres of existing pipeline between Edmonton and Burnaby. Trans Mountain requested approval of a 150 metre wide corridor for the TMEP pipeline's general route.

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On 29 November 2016, GIC directed the Board to issue Certificate of Public Convenience and Necessity OC-064 ([A80871](#)), the effect of which was to approve the TMEP, including the 150 metre wide corridor.

On 3 March and 12 May 2017, Trans Mountain applied to the Board for Segments 3 and 4 of its TMEP detailed route, submitting the Plan, Profile and Book of Reference (PPBoR) for Segment 3 ([A81970](#)) and Segment 4 ([A81971](#)). Under section 34 of the *National Energy Board Act* (NEB Act), Trans Mountain made available for public viewing copies of its PPBoR, served notices on owners of lands proposed to be acquired for the proposed detailed route¹, and published notices in newspapers in the vicinity of the proposed detailed route².

In all detailed route hearings, the Board considers the following issues:

1. the best possible detailed route of the pipeline;
2. the most appropriate method of constructing the pipeline; and
3. the most appropriate timing of constructing the pipeline.

The Board in the Hearing Order issued on 16 November 2017 stated it would not reconsider matters that were addressed in the certificate hearing, such as the need for the TMEP.

2. Detailed Route Hearing MH-078-2017

Mr. John Richardson, Mr. Robert McMahon and Ms. Theresa McMahon, are registered owners of lands identified as District Lot 2954, Land District 24, Parcel Identifier 002-778-645 in BC (Lands). Trans Mountain is proposing to cross the Lands with the new TMEP pipeline in Segment 4. The Lands are shown on PPBoR: M002-PM03008-021 and in Figure 1. Trans Mountain identified the Lands as Tract 1022.

Mr. Richardson and Mr. McMahon (described as Robt. McMahon in the statement of opposition) (Landowners) filed their statement of opposition on 10 May 2017 ([A83402-1](#)).

The Board granted the Landowners a detailed route hearing and issued Hearing Order MH-078-2017 ([A87886](#)) on 16 November 2017. The Hearing Order set a February-March 2018 timeframe for the oral portion of the hearing. Mr. Richardson and Mr. McMahon did not request a site visit.

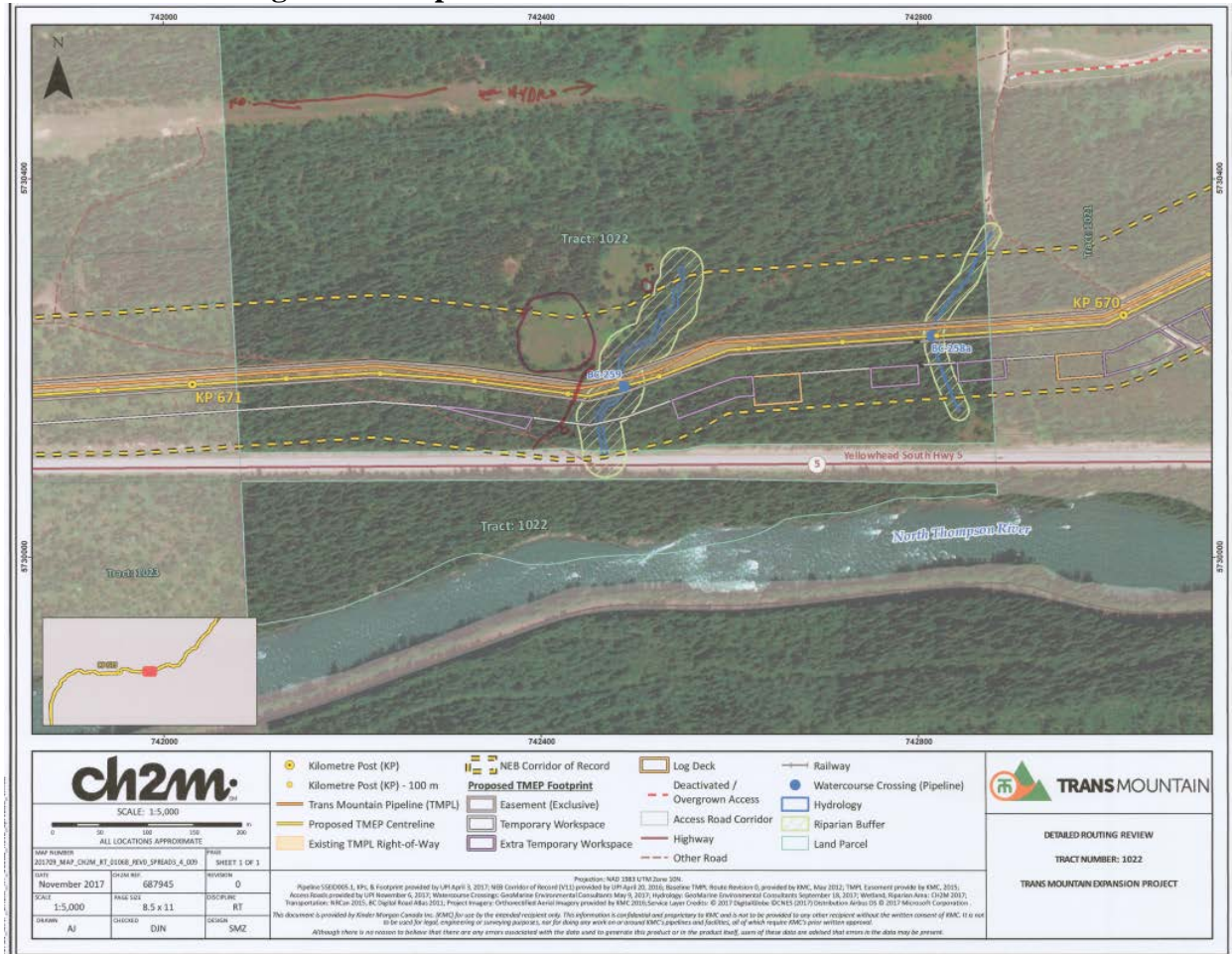
On 9 February 2018, the Board issued Order MO-018-2018 ([Order](#)) in response to an application for substituted service by Trans Mountain on the third registered owner, Theresa McMahon. This Order specified how service of the notice required under paragraph 34(1)(a) of the NEB Act was to be effected on Ms. McMahon. On 11 May 2018, Trans Mountain filed, with the Board, a letter ([A91932-1](#)) setting out that the requirements of the Order for substituted service on Ms. McMahon had been met, and that the 30 days for filing a statement of opposition had ended on 22 April 2018. No statement of opposition was filed with the Board by Ms. McMahon.

¹ As required by [paragraph 34\(1\)\(a\)](#) of the NEB Act.

² As required by [paragraph 34\(1\)\(b\)](#) of the NEB Act.

The oral hearing for the Lands was held on 6 March 2018, in Clearwater, BC. Mr. Richardson was present and indicated that he was representing himself and Mr. McMahon. Trans Mountain presented a panel of witnesses for cross-examination, provided an opening statement and final and reply argument. Mr. Richardson provided an opening statement and final argument.

Figure 1 – Map of the Richardson and McMahon lands³



³ The map in Figure 1 was originally filed by Trans Mountain as part of its evidence for detailed route hearing MH-078-2017 ([A89109](#)). Various coloured markings were added by the parties during the oral hearing, and the map with markings was entered on the record as Exhibit [A90438](#). Appendix I attached to this Decision contains a version of this map recreated by the NEB to reflect those markings.

3. Proposed detailed route, methods and timing of construction

3.1 Trans Mountain's routing criteria

Trans Mountain submitted that its pipeline corridor was developed based on a standard set of routing criteria designed to enable the pipeline to be installed safely, and reinforce the protection and integrity of the pipeline while minimizing the adverse effects of the pipeline installation and operation to the extent practicable.

During the route selection process, Trans Mountain established a hierarchy of routing options. In descending order of preference, these were:

- where practicable, co-locate the TMEP pipeline on or adjacent to the existing TMPL easement;
- where co-location with the TMPL was not practicable, minimize the creation of new linear corridors by installing the TMEP segments adjacent to existing easements or rights-of-way for other linear facilities including other pipelines, power lines, highways, roads, railways, fibre optic cables and other utilities;
- if co-location of the TMEP pipeline with any existing linear facility was not feasible, install the TMEP segments in a new easement selected to balance safety, engineering, construction, environmental, cultural and socio-economic factors; and
- in the event a new easement was necessary, minimize the length of the new easement before returning to the TMPL easement or other rights-of-way.

Trans Mountain also submitted that while installation of the TMEP pipeline will generally require a 45-metre wide construction easement, Trans Mountain studied and applied for a wider corridor (generally 150 metres). The wider corridor was intended to provide flexibility for minor pipeline alignment adjustments during the detailed engineering and design phase.

Trans Mountain stated that as a practice, determination of routing feasibility for the entire TMEP included consideration of a range of factors including constructability, long-term geotechnical stability, and environmental, cultural, and socio-economic suitability.

3.2 Proposed Detailed Route on the Lands

In its written evidence, Trans Mountain indicated that the proposed TMEP route on the Lands follows the existing TMPL easement and that the proposed TMEP pipeline is to be located within that existing easement. Trans Mountain also stated that in accordance with its routing criteria it strived to parallel or co-locate the TMEP within the existing TMPL easement to reduce land use fragmentation, reduce the use of unencumbered lands, and optimize pipeline integrity and safety.

As shown in Figure 1, the proposed detailed route crosses through the southern portion of the Lands which are situated north of the North Thompson River.

In its PPBoR, Trans Mountain noted that the proposed new easement would be 809.3 metres in length, 18 metres wide with an area of 1.457 hectares (ha) (3.6 acres) situated on the Lands. Trans Mountain during cross-examination noted it required about 2.5 ha of temporary workspace, about an acre of extra temporary workspace and about a third of an acre for a log deck.

3.3 Concerns Raised

Views of the Landowners

At the oral hearing, Mr. Richardson advised that no one resides on the Lands, and the Lands are used for recreational purposes. There is a trailer on the Lands as well as old log barns from the original homestead.

In their statement of opposition, the Landowners raised three concerns:

1. the driveway crossing needs to withstand construction vehicles;
2. watercourse crossings that need protection; and
3. tree removal.

At the oral hearing, Mr. Richardson advised that the first two concerns had been satisfactorily addressed by Trans Mountain (discussed in further detail below). The Landowners' outstanding concern with respect to the proposed TMEP pipeline that remained at the time of the oral hearing was with respect to the tree removal required for temporary and extra temporary workspace.

Views of Trans Mountain

Trans Mountain stated that it would use conventional open cut pipeline construction. Trans Mountain also stated it would use the isolated open cut method for the two watercrossings on the Lands, except if the crossings are dry; then it would be done without having to use the isolation method.

Trans Mountain took the position that the proposed project route is the best possible route on the Lands.

3.4 Proposed removal of trees

Views of the Landowners

Mr. Richardson testified that Trans Mountain currently has a 60 foot right-of-way on the property. The Landowners have no opposition to the route if the proposed TMEP pipeline is laid within the existing 60-foot right-of-way, without the removal of additional trees.

In their statement of opposition, the Landowners state that the trees provide a necessary buffer from the highway and the inherent problems associated with highway proximity such as noise pollution, loss of privacy, diesel and gas fumes, loss of security, etc. They went on to state that the removal of the trees would create an eyesore and reduce property value.

Mr. Richardson noted that there are currently four separate government sanctioned easements on the Lands: a highway, a pipeline, a hydro line and a fibre optic line. Mr. Richardson testified that the possible loss of more of the Lands for the proposed TMEP pipeline is dismaying.

Mr. Richardson argued that construction associated with the proposed TMEP pipeline should be contained within the existing TMPL right-of-way, without the loss of trees on the Lands. Mr. Richardson noted that Trans Mountain will use approximately 325,000 square feet of additional land for the proposed TMEP pipeline, beyond the 160,000 plus square feet already used for the TMPL, and that this is a heavily wooded area.

Mr. Richardson questioned why Trans Mountain required additional workspace to lay the proposed TMEP pipeline, which entails cutting down trees, when it can lay pipe in towns and neighborhoods within the existing right-of-way. Mr. Richardson argued that Trans Mountain's proposal to cut trees on the Lands was for its expedience at the expense of the trees.

In the alternative, Mr. Richardson proposed that a meadow (Meadow), which is cleared land to the west of Hornet Creek and north of the proposed TMEP pipeline, could be used to reduce the workspace required. Mr. Richardson advised that no trees would be required to be cut in this area.

Views of Trans Mountain

Trans Mountain noted that when the TMPL was built in 1952-53, a conventional 60-foot easement was used, and as a convention it likes to have 8 or 9 metres between the two pipelines. In order to minimize tree loss, Trans Mountain will use the existing TMPL easement for temporary workspace, but that additional temporary workspace is required adjacent to and along the TMPL easement during pipeline construction in order to safely install the proposed TMEP pipeline. Additional temporary workspace is also required at the Hornet Creek crossing. A log deck is also required.

Trans Mountain further noted that temporary workspace is required to allow for sufficient space to accommodate excavated material, pipeline material, and for operation and safe travel of heavy construction equipment. Additionally, temporary workspace is required to store salvaged topsoil or root zone material in a manner to prevent admixing with subsoils and preserve soil capabilities.

Trans Mountain stated it is motivated to minimize tree loss not only to address the Landowners' concerns, but also to minimize cost and environmental impacts, and the amount of restoration work associated with tree-clearing. [T1079] Trans Mountain stated that trees will be replaced with trees of similar species or, in lieu, the Landowners may accept monetary compensation.

Specifically, Trans Mountain suggested that it could reinstate visual screens by planting caliper sized trees that could range from 6 to 12 feet in height and having 4 to 6 inches in trunk diameter at breast height.

In terms of monitoring the restoration of the areas where trees are removed, Trans Mountain indicated it would work with the Landowners. Further, Trans Mountain noted that while post-construction monitoring is set out for five years, if any unresolved issues remain, those will continue to be addressed until the issues are resolved. If there is the need for adaptive management options, Trans Mountain noted that input from the Landowners would be taken into consideration.

With respect to relocating workspace to the Meadow, Trans Mountain noted that it is constrained by the existing access road and driveway on the south side. Further, Trans Mountain noted that it is challenging to remove all of the grade material across an active creek during the installation process to temporarily store the grade material on the west side. Trans Mountain also stated that it wanted to ensure that the material that comes from the creek on the east side stays on the east side, and that what comes from the west side stays on the west side.

Trans Mountain stated that it is always looking to minimize its use of lands. In this regard, Trans Mountain committed to continue to engage with Mr. Richardson and see if there is some way it can make adjustments and determine if there are some potential uses for the Meadow.

With respect to constructing the proposed TMEP pipeline entirely within the existing right-of-way without requiring additional workspace or removal of trees, Trans Mountain noted that there are instances where it is required to construct within an 18 metre workspace due to the presence of physical constraints such as houses. Trans Mountain noted there are no technical or environmental considerations that would require anything but conventional construction on the Lands.

If Trans Mountain were to minimize the workspace, it stated that the stove-pipe construction method would be required. This would result in there being no travel lane and it would require a “move around” which means the contractor’s equipment is loaded onto a truck and moved to the other side to continue the construction. Trans Mountain provided a rough estimate of \$1 million for the move around. The move around would break up approximately 73 kilometers of continuous open cut construction. Further, the move around would relocate the workspace onto adjacent properties and Trans Mountain would be required to haul material back and forth. Trans Mountain noted that it has agreements with the nearby landowners and it would need to renegotiate those agreements if new lands are required to do the move around.

Trans Mountain explained that the stove-pipe construction method would entail an extension to the construction schedule in the order of 20 to 25 times of what it would take to do conventional open cut construction. From a cost perspective, Trans Mountain testified that it would be approximately five to ten times more expensive.

Due to the creek crossing, Trans Mountain also noted that it may need to use sheet piling to shore, which adds complexity, cost and time.

3.5 Driveway crossing

Views of the Parties

In their statement of opposition, the Landowners stated that they needed an assurance from Trans Mountain for the protection of their driveway crossing to withstand construction vehicles.

During the oral hearing, Trans Mountain stated that it would ensure that the driveway access was suitable for the Landowners' activities to come and go from the property as they choose. As Trans Mountain gets closer to construction, it said that it would work closely with the Landowners to schedule those activities. If the driveway needs to be open cut or compromised during the actual installation of the pipeline, Trans Mountain said it will work with the Landowners to install an alternate access, so that the Landowners would have full access to their property.

At the hearing, Mr. Richardson confirmed that the Landowners' concerns regarding the driveway crossing had been addressed by Trans Mountain.

3.6 Protection of the Two Watercrossings

Views of the Parties

In their statement of opposition, the Landowners noted that they needed assurance from Trans Mountain on the protection of Hornet Creek and the unnamed watercourse on the Avola side of the property, which the Landowners referred to as the springwater crossing.

Trans Mountain noted that the watercourses on the Lands were identified on the Environmental Alignment Sheets as BC-259 (Hornet Creek) and BC-258a (unnamed watercourse/springwater crossing). Trans Mountain noted that during a fishery survey, Hornet Creek was identified as a fish bearing creek. No fish were found in the springwater crossing.

Trans Mountain stated that watercourses will be reclaimed as outlined in its Reclamation Management Plan which is part of the Environmental Protection Plan filed pursuant to the Certificate. The reclamation measures will include the physical replacement of streambed habitat features and replacement of the stream banks; re-contouring, constructing soil mounds and spreading root zone or topsoil material in upland areas; installing permanent bio stabilization measures on approach slopes and on stream banks; and redistributing coarse woody debris.

Trans Mountain also noted that the measures outlined in the Reclamation Management Plan are designed to ensure the stabilization of the banks and approach slopes of watercourses and re-vegetation within riparian areas immediately following construction and to re-establish important fish habitat at these watercourses.

During the hearing, Mr. Richardson confirmed that the Landowners' concerns regarding the protection of these two watercourses had been addressed by Trans Mountain.

4. Board Decision for Detailed Route Hearing MH-007-2017

The Board appreciates the time spent by Mr. Richardson, representing himself and Mr. McMahon, and Trans Mountain in discussing their concerns at the detailed route hearing.

The Board notes the filing of Trans Mountain in relation to the substituted service for the third landowner being Theresa McMahon. The Board also notes that the 30 day period in which she could file a statement of opposition has passed with no statement of opposition being filed.

During the oral hearing, both Mr. Richardson and Trans Mountain identified the issues were related to the methods of construction, and not to the detailed route of the proposed TMEP pipeline nor to the timing of construction.

The Board is pleased that the detailed route hearing assisted the parties in resolving two out of the three concerns raised by the Landowners. The remaining concern is about whether Trans Mountain could construct the proposed pipeline either exclusively within the existing TMPL easement, without requiring the removal of additional trees, or use the already cleared Meadow for its workspace requirements.

The Board finds that Mr. Richardson's argument that Trans Mountain could construct the proposed TMEP pipeline within the existing TMPL easement, without requiring the removal of additional trees, to have merit. However, the Board is persuaded by Trans Mountain's evidence that it requires additional workspace to build the pipeline safely and efficiently.

Further, the Board is persuaded by Trans Mountain's specific and detailed evidence that the stove-pipe and the move around method of construction are not the most appropriate methods of construction on the Lands as they would, among other things, be more time consuming, complex, costly, and would impact additional landowners.

With respect to using the Meadow as alternative space for Trans Mountain to utilize for its workspaces, the Board is persuaded by Trans Mountain's evidence that there are challenges of hauling materials to the northside of the creek, the quantity of materials required to be moved, and maintaining landowner use of the driveway. The Board is of the view that these restraints limit this option.

The Board notes Trans Mountain's commitment to continue to engage with Mr. Richardson to see if there is a way to make adjustments so as to make use of the Meadow to potentially reduce the need for, or amount of, tree-clearing. As with any commitment made, the Board expects Trans Mountain to follow through.

The Board understands that there are no residents on the Lands, and no immediate plans for people to become residents there. In such a situation, the immediate potential impacts as stated by the Landowners such as noise pollution, loss of privacy, gas and diesel fumes and other matters due to removal of trees which have acted as a buffer from problems associated with the proximity of the highway, would result in negligible effects. The Board also understands that if trees are replanted these potential impacts would further diminish over time and the area would be returned to a state similar to what it is today.

The Board notes that Trans Mountain is motivated to try to minimize tree cutting, and that it will work with Mr. Richardson in relation to replacement of the trees that are removed. At a minimum, the Board would expect, that if requested by the Landowners, Trans Mountain would use trees of similar species and a size not less than 6 to 12 feet in height and having a 4 to 6 inch trunk diameter at breast height, as stated by Trans Mountain during the oral hearing, unless the Landowners request less mature replacement trees. Alternatively, the Board notes that the Landowners could request compensation from Trans Mountain in lieu of replacement trees. While the Board recognizes that compensation was not a concern raised by Mr. Richardson during the hearing, the statement of opposition did mention a reduction in property value due to the removal of trees. Compensation matters are outside of the Board's jurisdiction. Such matters are within the authority of the Minister of Natural Resources Canada in accordance with Part V of the NEB Act. For information, the Landowners may contact Natural Resources Canada at PAS-SAG@NRCanRNCa.gc.ca or visit its website.

Lastly, the Board notes that Trans Mountain has a five-year post-construction monitoring plan to deal with unresolved and unmitigated issues. Trans Mountain stated that if issues remain unresolved following the five year period, it will continue to engage landowners and try to resolve any outstanding issues.

Having considered all of the evidence filed on the record by Mr. Richardson and Mr. McMahon and Trans Mountain, the representations made at the oral portion of the detailed route hearing, and the matters described above, the Board finds that Trans Mountain's proposed route is the best possible detailed route for the TMEP on the Lands. The Board also finds that the methods and timing of constructing the new TMEP pipeline are the most appropriate, subject to the commitments made by Trans Mountain.

Any approval by the Board of the PPBoR for the Lands will include a condition requiring Trans Mountain to list and fulfill the commitments it made in the course of this detailed route hearing, and update its alignment sheets. The Landowners are entitled to seek remedy from the Board if the commitments are not being fulfilled.

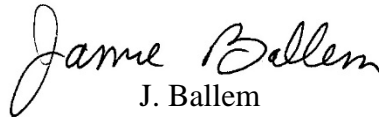
Trans Mountain is reminded that the relevant conditions of approval in Certificate OC-064 apply to the construction and operation of the new TMEP pipeline on the Lands.



L. Mercier
Presiding Member



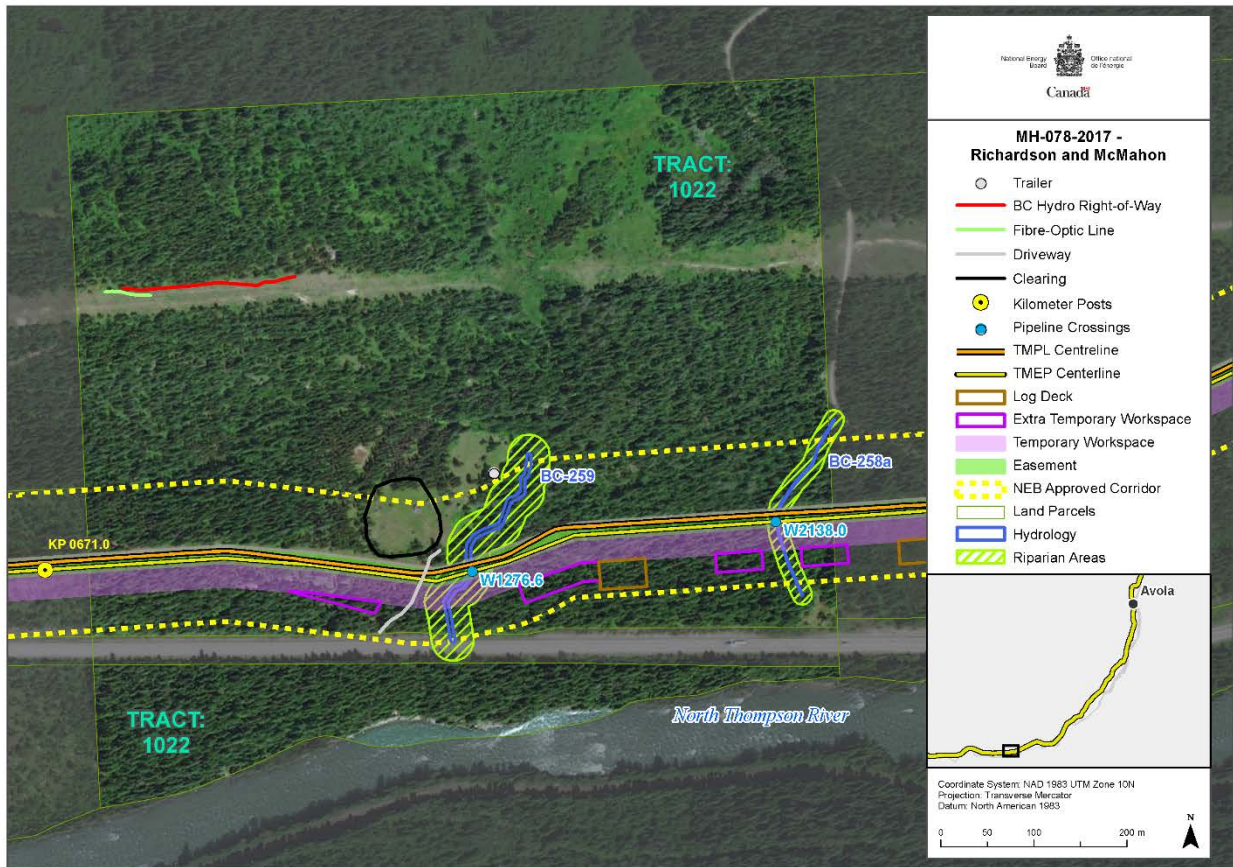
S. Parrish
Member



J. Ballem
Member

Appendix I – Map of the Lands

This map was created by the NEB for illustrative purposes only.



MAP PRODUCED BY THE NEB, APRIL 2018. THIS MAP HAS BEEN GENERATED BY THE NEB FOR ILLUSTRATIVE PURPOSES ONLY. THE NEB DISCLAIMS ALL RESPONSIBILITY FOR ANY ERRORS, OMISSIONS AND INACCURACIES. READERS WISHING TO CONSULT THE ACTUAL MAPS AS THEY WERE FILED SHOULD REFER TO THE OFFICIAL RECORD.