



DECISION

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Mr. Greg McDade
Counsel
Ratcliff & Company
500 – 221 West Esplanade
North Vancouver, BC V7M 3J3
Email GMcDade@ratcliff.com

Mr. D. Scott Stoness
Vice President, Regulatory and Finance
Kinder Morgan Canada Inc.
Suite 2700, 300 – 5th Avenue SW
Calgary, AB T2P 5J2
Email regulatory@transmountain.com

Mr. Shawn H.T. Denstedt
Counsel
Osler, Hoskin & Harcourt LLP
Suite 2500, 450 – 1st Street SW
Calgary, AB T2P 5H1
Email regulatory@transmountain.com

Dear Mr. McDade, Mr. Stoness, and Mr. Denstedt:

**Trans Mountain Pipeline ULC (Trans Mountain)
Trans Mountain Expansion Project - Certificate OC-064
Decision for Detailed Route Hearing MH-033-2017
City of Burnaby (Burnaby)**

Summary

The National Energy Board's (Board) current detailed route hearings are to determine the best possible route and the most appropriate methods and timing of construction for the new Trans Mountain Expansion Project (TMEP) pipeline. In its statement of opposition, Burnaby discussed six different sections of its lands, which it referred to as the: (1) Brunette Section; (2) Cottonwood Park Section; (3) Lougheed-Gaglardi Section; (4) Eastlake Section; (5) Shellmont Section; and (6) Tunnel Section.

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This decision relates to five of these six sections as the Board previously issued its ruling on the Tunnel Section.¹ Burnaby opposed the proposed detailed route and the methods and timing of construction in relation to all of these sections.

For Burnaby's hearing, the Board finds that for three sections, Cottonwood Park, Lougheed-Gagardi and Eastlake, the applied-for route is the best possible route, and the methods and timing of construction are the most appropriate, subject to the commitments Trans Mountain has made and the conditions imposed by the Board. The majority of the Board finds the same for the Brunette and Shellmont sections. Member Parrish, in dissent, would have directed Trans Mountain to provide additional information regarding the Brunette and Shellmont sections.

¹ The Board issued its decision for MH-033-2017 on the Tunnel Section on 15 February 2018 ([A90020](#)).

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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 (BC) 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 generally 150 metre-wide corridor for the TMEP pipeline's general route.

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

On 3 and 17 March 2017, Trans Mountain applied to the Board for Segment 7 of its TMEP detailed route, submitting the Plan, Profile, and Book of Reference (PPBoR). 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 route², and published notices in newspapers in the vicinity of the proposed detailed route³.

In all detailed route hearings, the Board considers the following issues⁴:

- 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.

In its 4 October 2017 Letter of Decision ([A86548](#)), the Board said that it would not consider the issue of compensation to be paid to landowners as that matter is not within its jurisdiction.

In its 16 January 2018 Procedural Update No. 4 ([A89245](#)), the Board reminded parties of the above three issues that it would consider and said,

Issues raised should be site-specific to the proposed detailed route of the pipeline. Topics such as individual compensation, the specific terms of easement agreements and general design and safety already considered at the certificate hearing are out of scope and not relevant to the detailed route hearing.

² As required by paragraph 34(1)(a) of the NEB Act

³ As required by paragraph 34(1)(b) of the NEB Act

⁴ As set out in subsection 36(1) of the NEB Act

2. Detailed Route Hearing MH-033-2017

Burnaby is the registered owner or occupier of lands located at various locations proposed to be crossed by the TMEP in Segment 7. Burnaby discussed six different sections of lands in its statement of opposition, which it referred to as:

- Brunette Section;
- Cottonwood Park Section;
- Lougheed-Gaglardi Section;
- Eastlake Section;
- Shellmont Section; and
- Tunnel Section.

This decision relates to all sections identified in the statements of opposition, except the Tunnel Section, for which the Board issued its decision on 15 February 2018 ([A90020](#)).

Burnaby filed statements of opposition on 23 April 2017 ([A82783](#)) and 24 July 2017⁵ ([A85106](#)), stating that it is opposed to the proposed detailed route and methods and timing of construction in relation to all sections served by Trans Mountain. Details about the individual sections of land can be found in the statements of opposition.

The Board granted Burnaby detailed route hearing MH-033-2017 and issued a Hearing Order on 4 October 2017 ([A86549](#)).

The oral portion of the detailed route hearing was held from 23 to 25 of January 2018 in the City of Burnaby, BC (transcripts filed as [A89490](#), [A89535](#) and [A89557](#)). Both Trans Mountain and Burnaby presented witness panels, who were cross-examined by the respective parties and questioned by the Board.

Issues raised by Burnaby that apply to all sections of land are addressed below in the *Overarching Concerns* section, where the Board has also indicated issues raised by Burnaby that were out of scope. Section-specific issues raised by Burnaby are addressed under the relevant headings below.

2.1 Proposed Detailed Route

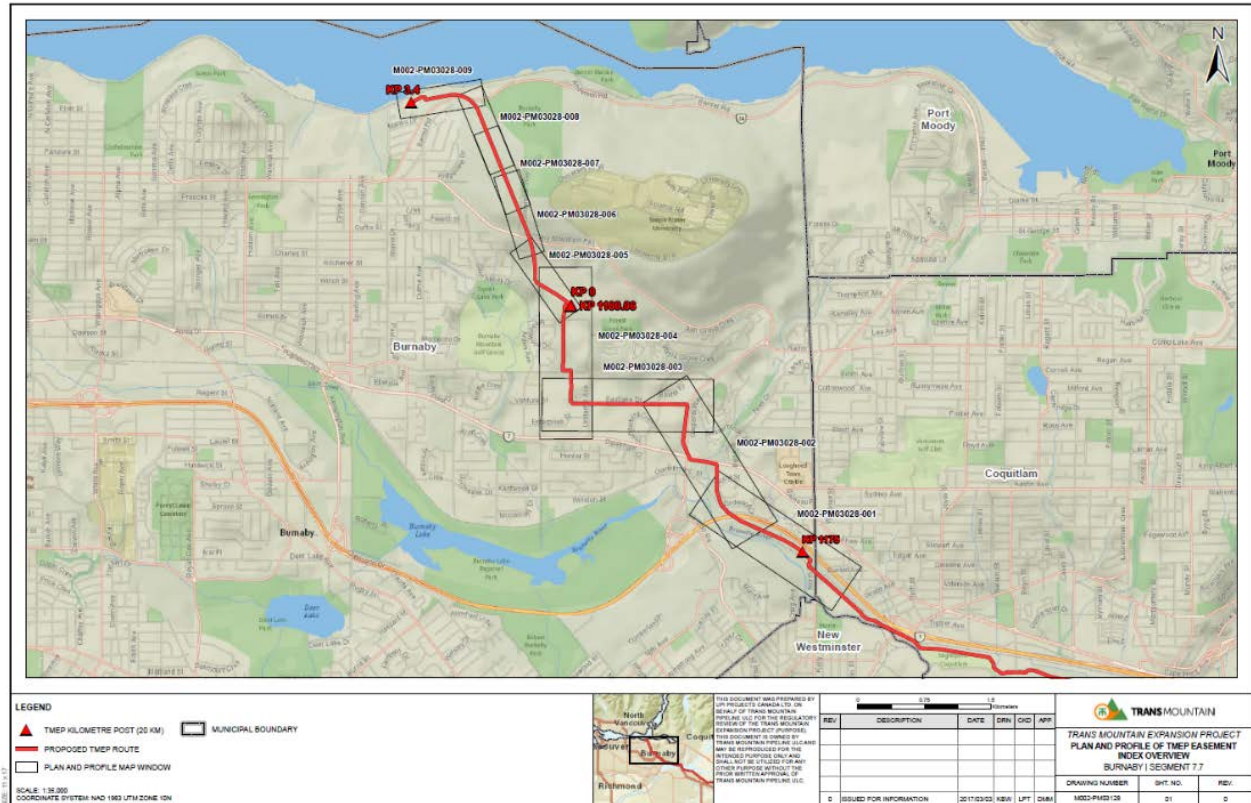
The proposed detailed route referred to in this decision crosses through the City of Burnaby between kilometre post (KP) 1174.85 and KP 1179.90. This excludes the Tunnel Section which was the subject of the decision released on 15 February 2018.

Trans Mountain identified the tracts affected by the proposed route in its PPBoR for Segment 7.7, which was filed with the Board on 3 March 2017 ([A81972-2](#)), shown below in Figure 1.

⁵ Burnaby's 24 July 2017 filing clarified that its previously-filed statement of opposition applied to two additional parcels, identified after a subsequent service step by Trans Mountain, but in all other respects was a re-filing of the 23 April 2017 statement of opposition. Therefore the Board refers singularly to Burnaby's statement of opposition.

Detailed descriptions of the route and maps for each of the five sections are included under the relevant headings below.

Figure 1 – Map of the proposed route through Burnaby⁶



3. Overarching Concerns

The following general concerns raised by Burnaby are applicable to all five sections of land in Burnaby’s statement of opposition. Issues deemed by the Board to be out of scope are also addressed at the end. Concerns related to the Tunnel Section were addressed in the 15 February 2018 decision.

3.1 Consultation

Views of Burnaby

During the detailed route hearing, Burnaby said that Trans Mountain’s engagement on the TMEP started poorly and was characterised by confusion. Burnaby objected to the claim made by Trans Mountain that Burnaby refused to engage, and said that it was always willing to engage with Trans Mountain. Burnaby said that it was very diligent at the beginning in engaging with Trans

⁶ Figure 1 is a map filed by Trans Mountain as part of the PPBoR for Segment 7.7 ([A81972-2](#)).

Mountain in order to understand the TMEP and its implications for Burnaby residents. Burnaby also said that it was not engaged in a way that was fair and equitable, and that overall Trans Mountain's approach lacked due diligence, community engagement, and information from the outset.

Burnaby expressed concern that once Trans Mountain receives approval for its detailed route, that all levels of cooperation will be gone. Burnaby said that, the reason it was before the Panel was that it is not satisfied that compromise is possible without an order of the Panel to go and find a new route.

In questioning during the oral hearing, Burnaby said, “[i]n many respects, we're still here to oppose many of the things that are going to be impacted.” Burnaby indicated that it had only limited engagement with Trans Mountain during the time period when detailed routing was being developed, although it had provided comments through its counsel on reports that had been filed with the NEB.⁷

Views of Trans Mountain

In its written evidence, Trans Mountain said that it provided Burnaby with all notifications required under the NEB Act, including for roads and some parks within Burnaby's lands.

Trans Mountain said it was diligent in its attempts to engage Burnaby in the routing, planning, and design of the TMEP, and provided the information sought by Burnaby in its statement of opposition, but acknowledged success was limited, as Burnaby refused to engage with Trans Mountain on several occasions. Trans Mountain further disagreed with Burnaby's statements that it did not have a chance to articulate its concerns and that it was always willing to engage with Trans Mountain. Trans Mountain said that it began engagement with Burnaby in 2012 and summarized its efforts to engage Burnaby in its written evidence, as well as at the oral hearing.

In August 2014, Trans Mountain initiated Technical Working Groups with various municipalities as part of its engagement program. Burnaby declined to participate when they were initially established. After the Certificate was issued in 2016, Trans Mountain again invited Burnaby to participate, which it agreed to do if they were called “pre-Technical Working Group” meetings. More specific issues were to be dealt with in Sub-Working Groups, but Burnaby staff were not willing to fully participate in these meetings until after the detailed route process was complete and hearings concluded. Overall, Trans Mountain indicated it has only been able to discuss limited information in the pre-Technical Working Group and Sub-Working Group meetings with Burnaby staff.

Trans Mountain said it undertook an open, inclusive, and transparent stakeholder engagement process and that it remains ready to continue to engage with Burnaby around opportunities for improved mitigation and reclamation enhancement. Trans Mountain said that it proactively made changes to its construction plans based on concerns expressed by Burnaby, for example, by removing extra temporary workspace in high-value areas. It is Trans Mountain's view that

⁷ Also stated at page 6 in the Tunnel Section Decision.

Burnaby has refused to engage because it remains opposed to the TMEP in its entirety, regardless of the specific route through Burnaby.

3.2 Location of the Route

3.2.1 Route Selection Process and Routing Criteria

Views of Burnaby

At the oral hearing, Burnaby expressed several concerns with Trans Mountain's approach to routing within the city and made a number of arguments against it. Many of the concerns related generally to routing throughout Burnaby and not to specific locations.

First, Burnaby challenged Trans Mountain's standard routing criteria, including how the criteria were developed and applied, and whether or not they were industry standard principles. Burnaby also noted that Trans Mountain continued to use its standard criteria for this area even though Burnaby argued that bringing an oil pipeline through a major municipality is unprecedented.

Second, Burnaby took issue with Trans Mountain's application of its routing criteria, noting it did not follow its number one routing criterion, which is to co-locate the new TMEP pipeline with the existing TMPL, and is instead proposing an entirely new route. Burnaby suggested that co-location was a primary justification for the approval of the TMEP, yet in Burnaby this has not been applied. Burnaby argued that Trans Mountain did not present any engineering evidence, socio-economic evidence, or other analysis on why following this criterion was not practicable in Burnaby other than a general statement saying there was extensive urban development along the route.

Third, Burnaby argued that Trans Mountain did not follow any objective process in its route selection within the city and intentionally targeted municipally-owned lands. Burnaby is of the view that the route failed to conform with many of the routing criteria, such as co-location, following existing previously-disturbed corridors, and avoiding environmentally sensitive areas. Burnaby submitted that instead, Trans Mountain selected a route to avoid the difficulty of pushback from individuals and businesses who would have been affected had the criteria been followed.

Overall, Burnaby argued that the route is not acceptable as the best possible route. It said the route does not meet the routing criteria and should be rejected. Burnaby did not suggest any specific alternate routes.

Views of Trans Mountain

In selecting its generally 150-metre-wide corridor and detailed route for the TMEP, Trans Mountain established a hierarchy of routing principles, which it set out in its written evidence and spoke to in the hearing. There were four routing criteria that guided Trans Mountain in selecting its route, in descending order, these were:

1. where practicable, Trans Mountain co-located the TMEP on or adjacent to the existing TMPL;
2. where co-location with the TMPL was not practicable, Trans Mountain minimized the creation of new linear corridors by installing the TMEP segments adjacent to existing easements or rights-of-way or other linear facilities;⁸
3. if co-location of TMEP with an existing linear facility was not feasible, Trans Mountain installed the TMEP segments in a new easement selected to balance safety, engineering, construction, environmental, cultural, and socioeconomic factors; and
4. in the event a new easement was necessary, Trans Mountain minimized the length of the new easement before returning to the TMPL easement or other rights-of-way.

Trans Mountain also developed and used a set of guidelines to enable and maintain consistent decision-making in route and corridor selection [Written Evidence, para 15]. In Trans Mountain's view, the routing criteria it used reflects standard industry practices that are employed for linear projects like the TMEP. Trans Mountain said it also used feedback from landowners, stakeholders, and various levels of government and Aboriginal communities to optimize the proposed TMEP corridor.

Trans Mountain said it received strong feedback that Burnaby residents and stakeholders preferred a route that would reduce disruption to dense residential areas that had developed adjacent to the existing TMPL since its construction in 1953. As a result, Trans Mountain proposed to install the new TMEP pipeline adjacent to existing linear infrastructure for 87 percent of Segment 7, following Trans Mountain's routing criteria and guidelines. Trans Mountain indicated in written evidence and the oral hearing that it followed its second routing criterion, to follow existing linear infrastructure, throughout the detailed route in Burnaby.

Trans Mountain said it did not "target" municipal lands, but rather went through the route selection process and applied the routing criteria to arrive at the proposed route in Burnaby. Trans Mountain argued that its route is the best possible route through Burnaby as it minimizes impacts overall, is practical, and efficient. Trans Mountain argued that Burnaby is opposed to the TMEP as a whole, did not propose any alternative, and is likely to be opposed to any route, regardless of whether it is inside the approved corridor.

3.2.2 Compatibility with Parks, Conservation Areas and Future Land Use Plans

Views of Burnaby

During the hearing, Burnaby described the significance of its efforts in the realm of city planning, particularly with regards to the planning of parks and conservation areas. Burnaby indicated that 25 percent of its total land area is park and that it uses bylaw tools to engage with citizens about park dedication in municipal elections.

Burnaby indicated that it developed official community plans, bylaws, and other policies and plans for conservation areas, parks, and protection of waterways, among other issues. Burnaby

⁸ For instance, other pipelines, power lines, highways, roads, railways, fibre optic cables, and other utilities.

questioned whether or not Trans Mountain reviewed the official community plans and future land use plans prior to deciding on a pipeline route that would go through the heart of the city. Burnaby said that official community plans are citywide policies as well as land use designation documents that form part of a bylaw.

Burnaby explained that the proposed route of the new TMEP pipeline through the city follows conservation areas and greenways almost entirely. Burnaby questioned how Trans Mountain valued public spaces used for conservation relative to private spaces. Burnaby said that it valued parklands not just as an open space to run utility corridors, but as having ecological and community values, and that pipelines were not compatible with those values.

Burnaby said the impacts of the TMEP on parks and public spaces are quite problematic for a municipality. It expressed concern that the right-of-way would create a sterile landscape. Burnaby took issue with the fact that it would not be able to plant any large trees, build a new cycle road, park washroom, or playground over the pipeline without permission from Trans Mountain.

Views of Trans Mountain

Trans Mountain confirmed that it reviewed and considered land use plans as one of many factors that went into its routing decision. Trans Mountain said official community plans were not zoning bylaws or site-specific land use plans. In Trans Mountain's view, although land use plans outlined future plans for expansion of parks and conservation areas, Burnaby's current land titles and zoning maps do not align with these future plans.

Trans Mountain said the new TMEP pipeline was not necessarily mutually exclusive or incompatible with parks and conservation areas. For instance, the new TMEP pipeline easement could provide an opportunity for trails or access to these areas. Trans Mountain also pointed out that the proposed route follows existing linear infrastructure, such as abandoned rail lines, in many of these areas and, therefore, does not constitute a significant change to the existing infrastructure. Trans Mountain said it would like to further explore compatibility of use with Burnaby in the Technical Working Groups.

At the detailed route hearing, Trans Mountain said it highly values environmental spaces and that it tries to avoid them where it can find a contiguous route as an alternative. Where they cannot be avoided, Trans Mountain said it believes construction could be completed without long-term or detrimental effects. Trans Mountain described the restoration it undertook in park areas during previous work (Jasper National Park on its Anchor Loop Project, and Burnaby Mountain Conservation Area) to demonstrate that it was aware of the sensitivities and potential effects of constructing pipelines through conservation areas and recreational areas. Additionally, in its reply evidence, Trans Mountain said its extensive mitigation and minimization measures were designed to reclaim disturbed areas to similar to pre-construction condition.

Trans Mountain also noted in its reply evidence that the proposed alignment was chosen to minimize effects on urban green space, and that many of the green spaces within the city are already highly disturbed with low biodiversity. Trans Mountain determined that many of the

trees were in poor health, and that invasive species, such as Himalayan Blackberry, are overtaking large areas. Along much of the proposed route through Burnaby, the original pristine forests have deteriorated and continue to deteriorate due to urban encroachment and unmanaged use.

Trans Mountain said it is committed to working with Burnaby on the construction plans and requirements for tree removal for temporary construction workspace with the intent of minimizing removal, to the extent practicable. Trans Mountain also explained that trees cannot be replanted on top of the new TMEP pipeline easement for operational reasons. Trans Mountain said it is committed to evaluating and replacing ornamental trees or shelterbelts in select areas. At select locations such as watercourses and wetlands, Trans Mountain said it is committed to reclaiming the land to a stable condition. It also committed to implementing special reclamation measures (e.g., tree replacement) as set out in the Reclamation Plan. Trans Mountain said it continues to be open to discussions with Burnaby around opportunities for improved mitigation and reclamation as part of detailed construction planning.

3.2.3 Ability to Maintain, Expand or Repair Municipal Infrastructure

Views of Burnaby

As part of its written evidence, Burnaby said that the proposed route would have significant impacts on its ability to adequately maintain, expand and/or replace critical infrastructure in all sections of land. Burnaby asserted that installation of the pipeline would significantly hamper municipal construction and maintenance work within the safety zone around the pipeline, as the permitting and notification requirements would result in significant costs and delays. At the hearing, Burnaby said that it would require agreement from Trans Mountain for any activity that occurs on the permanent easement, including but not limited to, planting trees and shrubs, maintenance work, and construction of new amenities. In Burnaby's view, receiving approval could be difficult and take months.

In its statement of opposition, Burnaby argued that Trans Mountain must be required to develop a protocol to govern the scheduling of maintenance and repairs, terms of access for maintenance and repairs, and appropriate measures for restoration. At the oral hearing, Burnaby also explained that it was overwhelming for a municipality of its size to have the expectation of engaging with Trans Mountain, only to have Trans Mountain say that it does not want to follow Burnaby's permitting and bylaw processes. Burnaby said that this makes it impossible for it to do the work of a municipal planning and building department and engage with a proponent.

Views of Trans Mountain

Trans Mountain is of the view that notification requirements related to the location of the safety zone are in place to ensure responsible ground-disturbance practices to avoid accidents and protect the integrity of the underground pipeline. Trans Mountain explained that the requirements associated with work in proximity to an NEB-regulated pipeline are not unusual, and are standard requirements for a municipality working in and around other buried utilities.

Trans Mountain said that Board requirements for notification related to excavations within the prescribed area are very similar to the requirements of Metro Vancouver.

As regards potential delays to municipal works, Trans Mountain described its notification process for work in the prescribed area, which reflects NEB requirements. Trans Mountain stated that any ground disturbance work within 30 metres of the pipeline right-of-way requires written approval in the form of a 30 Metre Permit from Trans Mountain. Trans Mountain said it would respond to a One Call ticket within three business days and would meet the party onsite to mark the pipeline and issue the permit. Trans Mountain also described the main requirements for conducting work within 30 metres of a Trans Mountain pipeline right-of-way.

Trans Mountain said that it complied with all applicable standards relating to depth of cover and clearance between municipal and third-party utilities within Burnaby. It also said that it selected a route that avoids direct impact to, and relocation of, any municipal utility. Trans Mountain said the proposed detailed route allows Burnaby space to build, operate, and maintain its infrastructure and that there was no evidence submitted to the contrary.

3.3 Methods and Timing of Construction

Views of Burnaby

Burnaby generally opposed the methods of construction proposed by Trans Mountain. It expressed concerns regarding the impact of construction on access, traffic, pedestrian/vehicle safety and risks of harm to users of parks and recreational trails during construction and operations. Burnaby argued that the methodology of construction chosen does not show an awareness or intent of environmental protection that should be there for parks, greenways, conservation areas, and public spaces.

During the oral hearing, Burnaby said that Trans Mountain should choose the methodology that might be more expensive, more difficult, and take longer, if it will result in less impact to Burnaby. It suggested that should the Panel not accept the arguments opposing the proposed route, that the Panel should at least make findings regarding methodology in terms of the highest protection.

Burnaby argued that the temporary workspace requirements for the TMEP are unreasonable for all five sections. Given the importance of intact green spaces to Burnaby and its residents, clearing of these lands for use as temporary workspace is unacceptable.

In order to manage some of its concerns regarding parks and green spaces, Burnaby suggested the following practices with regard to method of construction:

- use of trenchless methods to be used in parks and open spaces where construction is feasible;
- where trenchless methods are not feasible, areas of disturbance through parks and open spaces is to be kept to 20 metres;
- crossing through historic parks or sites is to be avoided;

- protect drainage courses to maintain water tables and overland flows; and
- landscaping restoration plans are required through all park areas, boulevards or other green space.

As part of its written evidence, Burnaby filed a technical memorandum titled, *Suggested Practices within Urban Areas*, undertaken by Associated Engineering. These are introduced as “... a collection of recommendations ...” developed for the construction of TMEP, and include a small number of suggestions for the Tunnel Section. Trans Mountain replied to the memorandum with site-specific comments on the suggestions and described why its proposed methods were most appropriate. At the oral hearing, Burnaby indicated its Associated Engineering report had not taken into account any condition compliance filings from Trans Mountain. Similarly, Burnaby indicated that it had not been actively involved or monitoring condition filings other than keeping a general list.

While Burnaby said it opposed the timing of construction, it did not raise any specific issues or provide evidence about its concerns related to timing of construction.

Views of Trans Mountain

Trans Mountain said the new TMEP pipeline would be constructed in accordance with the relevant industry standards, regulatory requirements, and engineering codes within Burnaby’s lands. In its written evidence, Trans Mountain outlined numerous construction standards and methods, including those related to highway and road crossings, buried utilities, and watercourse crossings.

In its written evidence Trans Mountain also described its construction methods for each of the sections, which included a combination of trenched and trenchless methods. Trans Mountain said that it proactively made changes to the construction plans based on concerns expressed by Burnaby in its statement of opposition. Trans Mountain outlined the areas where it had reduced the width of its easement and area of temporary workspace in response to Burnaby’s concerns. Trans Mountain said minimizing the area used for temporary construction workspace was a standard practice as it minimized cost, environmental impacts, and the amount of restoration required.

In its written evidence, Trans Mountain said it will be responsible for the safe management of traffic, cyclists and pedestrians within the TMEP workspace during construction and has completed condition filings accordingly. Trans Mountain said it will provide updates to stakeholders and the public throughout the construction phase of the TMEP.

3.4 Out of Scope Issues and Concerns

Views of Burnaby

In its statement of opposition, Burnaby raised the following general concerns: future costs, accidents and malfunctions (i.e., ruptures), emergency response, pipeline abandonment, maintenance and repair, indemnity, duty to regulate, and easement agreements. Burnaby did not

respond to Trans Mountain's assertion that these concerns are out of the scope of issues for the detailed route hearing.

During the oral hearing Burnaby also expressed concerns with Trans Mountain's compliance with plans, zoning, and bylaws in route selection.

Views of Trans Mountain

In its written evidence, Trans Mountain said that many of the general concerns raised by Burnaby are outside the scope of the detailed route hearing, as they are unrelated to the list of issues to be considered or were addressed by the Board in the NEB Report for the Certificate hearing.⁹

Trans Mountain recognized that Burnaby raised a number of concerns related to Trans Mountain's compliance with municipal plans, zonings, and bylaws. Trans Mountain said that it is a federally regulated entity under the NEB Act and that the TMEP will be constructed in accordance with the 157 conditions contained within the Certificate and in compliance with applicable federal legislation and regulatory requirements, including the NEB's *Onshore Pipeline Regulations*, general construction standards, methods contained within CSA Z662-15, and other applicable engineering codes and industry standards. As a result, Trans Mountain argued Burnaby's submissions regarding municipal permitting are not relevant to this detailed routing process. Trans Mountain intends to continue discussions with each municipality as it completes detailed planning and preparations for the TMEP construction.

3.5 Views of the Board

The Board notes that while Burnaby raised a number of concerns specific to sections of its lands, it also raised concerns that applied to all of its objections involving Burnaby lands. As a result, the Board is providing its views on the global points raised by Burnaby here, as well as views of the Board for specific sections of Burnaby land in the following sections. The Board is of the view that this is appropriate as this is linear connected infrastructure.

Consultation

The Board acknowledges Trans Mountain's commitment to continue engagement with Burnaby as well as Burnaby's interest in effective consultation and cooperation after the detailed route hearings are finalized. The Board expects affected parties, including municipalities, to engage with Trans Mountain by communicating their concerns to the company and making themselves available to discuss potential solutions. The Board encourages Trans Mountain and Burnaby to collaborate in order to address issues of interest to both parties, including the potential impacts on Burnaby's long-term plans and mitigation measures.

The Board notes the statement from Burnaby that, "it is never too late to consult or plan well." The Board disagrees with this statement. The Board is a court of record and all applications and

⁹ Listed under the heading "Background" of this decision.

proceedings before the Board must be dealt with as expeditiously as the circumstances and considerations of fairness permit. Therefore, the Board cannot indefinitely delay making decisions while it waits for Burnaby to engage. Thorough and effective consultation requires a process that must provide timely, appropriate and effective opportunities for all potentially affected parties to learn about the Project, provide their comments and concerns, and to discuss how Trans Mountain could address them. As previously stated in the NEB Report, the Board is still of the view that “when municipalities decline opportunities to engage, this diminishes the quality of information available to both the company and the Board, and creates the potential that less than satisfactory solutions to municipal concerns may be the result.”¹⁰

Consistent with the Board’s findings in the Tunnel Section decision, the Board makes the same finding regarding Burnaby’s assertions about its consultation with Trans Mountain. That is,

Having considered all the evidence regarding consultation opportunities during the detailed route process, the Board is of the view that Burnaby chose not to take full advantage of numerous opportunities offered by Trans Mountain. Outside of the limited pre-Technical Working Group process (sometimes referred to as the Technical Working Group process), and formal correspondence, Burnaby stopped its limited consultation with Trans Mountain around the time it filed its detailed routing objections. While it is Burnaby’s right to disengage, in the Board’s view a lack of ongoing input from a landowner results in less optimal outcomes during the detailed design phase of the Project. The Board encourages Burnaby to engage with Trans Mountain during subsequent phases of the project and the Board is of the view it has considerable local knowledge and expertise to share.

The Board is of the view that Burnaby and Trans Mountain can achieve more mutually acceptable outcomes by engaging on matters where they are both responsible. The Board reminds both parties that it offers Alternative Dispute Resolution services and technical support if either, or both parties, believe that additional support is needed.¹¹

Route selection process and routing criteria

The Board understands that Burnaby took issue not only with the route selection criteria and guidelines Trans Mountain developed, but with how they were applied within the city itself.

With respect to Trans Mountain’s route selection criteria, during the Certificate hearing the Board found that Trans Mountain’s route selection criteria was appropriate and provided reasons for doing so.¹² There is no basis for the Board to duplicate or reassess this finding. However, it is relevant to consider how the routing criteria was applied within Burnaby.

Regarding routing through Burnaby, the Board recognizes that Trans Mountain could not follow the existing TMPL right-of-way without significant challenges due to dense urban development. The Board disagrees with Burnaby’s assertion that routing through residential or commercial

¹⁰ NEB Report, page 28 ([A77045](#))

¹¹ Tunnel Section Decision, page 11 ([A90020](#))

¹² NEB Report, page 244 ([A77045](#))

properties is preferred over routing along streets and through parks and conservation areas, as the Board finds that most impacts to these areas can be more easily mitigated. The Board also heard from Trans Mountain that feedback from the community indicated people preferred that Trans Mountain avoid dense urban and residential areas. The Board finds that Trans Mountain's proposal to respect its second routing criterion and follow existing infrastructure is appropriate and practical.

Consistent with the views of the Board during the Certificate hearing and in its decision related to the Tunnel Section, the Board is of the view that by avoiding densely populated urban areas, the proposed route limits the nature and extent of impacts of construction and operations activities for residents while balancing safety, engineering, and environmental factors.

The Board is of the view that aligning the majority of the proposed route alongside and contiguous to existing linear disturbances is reasonable. It minimizes the environmental and socio-economic impacts of the new TMEP pipeline route, which is consistent with the second routing criterion.

Compatibility with parks, conservation areas and future land use plans

Burnaby has argued that pipelines are incompatible with parks, public spaces and conservation areas. However, the Board notes that Burnaby did not substantiate its argument with many concrete details. The Board acknowledges that the proposed route passes through areas of importance to many groups and stakeholders, including residents and recreational users. The Board also recognizes there are some restrictions as to what can be placed within the pipeline right-of-way, such as large trees and other surface installations but that, with reclamation, it is still possible to largely return green spaces to their original intended use.

Overall, the Board finds that pipeline rights-of-way are not necessarily incompatible with parks, public spaces, and conservation areas. By using appropriate mitigation during construction, and reclaiming these areas after construction, the Board is of the view that the new TMEP pipeline route is not likely to cause significant adverse effects to current and future land use for the residents of Burnaby. In particular, there will be some short-term effects during construction activities (e.g., the loss of some trees) in a limited geographic area, and in most instances these effects will be reversible once construction activities cease. The Board is therefore of the view that the route selection process applied by Trans Mountain for the new TMEP pipeline route can be largely compatible with Burnaby's proposed current and future land use plans. The Board notes that this is an opportunity for Burnaby and Trans Mountain to achieve more mutually acceptable outcomes by working together.

Ability to maintain, expand or repair municipal infrastructure

The Board recognizes the importance of minimizing potential impacts of the new TMEP pipeline route on Burnaby's municipal infrastructure and Burnaby's ability to maintain it. The Board is of the view that Trans Mountain's notification process for work within the prescribed area is not onerous or substantively different than requirements by other jurisdictions such as Metro Vancouver. The Board further notes that Burnaby did not provide any evidence or specific

examples to substantiate its assertions that Trans Mountain's process for work within the prescribed area would create significant delays or add onerous conditions to future municipal infrastructure projects.

The Board is also of the view that these matters were adequately assessed in the Certificate hearing for the TMEP.¹³ Trans Mountain committed to meeting the conditions and commitments it made related to municipal infrastructure impacts during that hearing. The Board notes that there are extensive views provided on these issues in the NEB Report (A77045-1) and that the Board imposed numerous conditions. The Board further acknowledges Trans Mountain's commitment to continue working with Burnaby through Technical Working Groups and other engagement initiatives to efficiently address any future concerns. In the Board's view, existing conditions and mitigation measures can adequately address Burnaby's concerns regarding impacts on municipal infrastructure.

Methods of construction

The Board is of the view that, absent special circumstances¹⁴, Trans Mountain will comply with all applicable standards and regulations related to timing and methods of construction. The Board is of the view that Trans Mountain has proposed appropriate plans and methods to mitigate local effects during construction. The Board is also of the view that the overall construction impacts to road and pathway users will be short-term and reversible.

The Board is of the view that these matters were adequately assessed in the Certificate hearing for the TMEP. Trans Mountain committed to meeting the conditions and commitments it made related to construction methods and associated impacts during that hearing. As also stated in the decision for the Tunnel Section (A90020), the Board notes that extensive views were provided on these issues in the NEB Report (A77045), and that the Board imposed numerous conditions. The Board, again, notes that Burnaby did not appear to take into account such conditions in its evidence. To some extent, this lowered the weight the Board has assigned to Burnaby's evidence related to methods of construction, including the Associated Engineering report. The Board notes the collection of practices did not indicate how legislative requirements for federally regulated pipelines were incorporated into the engineering analyses.

Out of scope issues and concerns

The Board recognizes that matters of integrity management, emergency avoidance, preparedness and response, and other safety issues related to the TMEP are important. However, the Board is of the view that those matters, when raised generally as they were here, are not for consideration in a detailed route hearing. These matters were assessed in the Certificate hearing for the TMEP. Trans Mountain has committed to meeting the conditions and commitments it made related to safety and emergency management during that hearing. The Board notes that there are extensive views provided on these issues in the NEB Report (A77045), specifically in Chapters 6, 7, 8, and 9, and that the Board imposed 157 conditions.

¹³ Including at page 17 of the NEB Report as part of the weighing of project benefits and burdens.

¹⁴ Such as those addressed in a Notice of Constitutional Question.

The Board is of the view that other issues raised, including pipeline abandonment, indemnity, and duty to regulate were also either addressed in the Certificate hearing or are outside of the Board’s jurisdiction for detailed route hearings. While it could have been possible to raise a connection between some of these issues with site-specific concerns related to routing, timing, or methods of construction, Burnaby chose not to do so. Costs or compensation issues and easement agreements are addressed in the NEB Act, but are outside the Board’s jurisdiction and are not relevant issues in a detailed route hearing. The Board will not discuss these out of scope issues further in this decision.

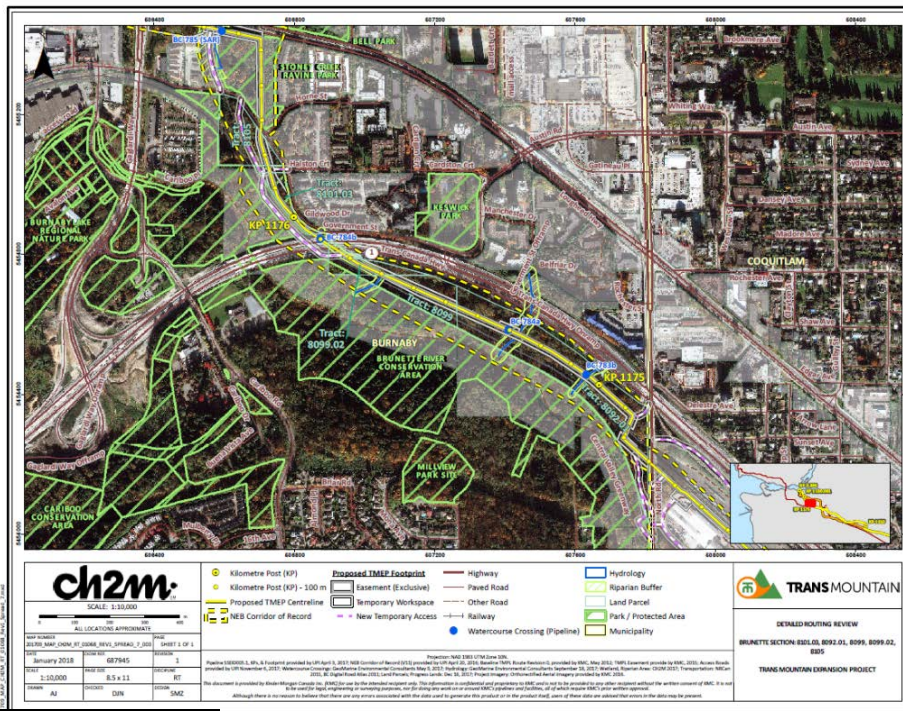
4. Brunette Section

4.1 Location of the Route

In its statement of opposition, Burnaby indicated that the Brunette Section extends from where the proposed route enters the City of Burnaby at North Road to where it crosses Government Road from KP 1174.68 to KP 1176.29. The majority of Burnaby’s written evidence and focus at the oral hearing centred on the portion of the route that crosses the Brunette River Conservation Area (BRCA). Burnaby and Trans Mountain had differing views on the boundaries of the BRCA, which are described below.

Trans Mountain’s routing corridor with respect to the Brunette Section was established to follow existing infrastructure between the Trans-Canada Highway and the active Burlington Northern Santa Fe (BNSF) railway, as shown in Figure 2.

Figure 2 – Map of the Brunette Section¹⁵



¹⁵ Figure 2 is a map filed by Trans Mountain as part of its written evidence for MH-033-2017 ([A89011-24](#)).

4.1.1 Route Selection for the Brunette Section

Views of Burnaby

With regards to the Brunette Section, Burnaby's primary concern was with Trans Mountain's decision to choose an alternate corridor going through the BRCA over the original corridor along the Lougheed Highway. Burnaby questioned Trans Mountain about how it applied its standard routing criteria, which said that Trans Mountain would follow the existing TMPL line, where practicable, and avoid areas that have significant environmental or cultural value or restrictions. In Burnaby's view, Trans Mountain did not follow either of these routing criteria in the Brunette Section because the route deviated from the existing TMPL, and because the route went against Burnaby's designation of the area as a conservation reserve. During the hearing, Burnaby said it believes that Trans Mountain deliberately chose to cross City-owned lands rather than residential properties.

Burnaby said it has long recognized the importance of the forest and creek systems that comprise the BRCA. Burnaby has rezoned these lands to restrict development and has long-said its intent is to acquire them for park designation. Burnaby said that the route would unacceptably fragment the BRCA.

Burnaby also said during the hearing that the BRCA has an immense natural value, provides a key ecological linkage that connects Burnaby Mountain with Burnaby Lake, and in turn Deer Lake, and is rich with wildlife. It said the BRCA plays a vital fisheries-related role in protecting and safeguarding the Brunette River by moderating run-off extremes, filtering out pollutants, preventing siltation, and protecting water quality.

Burnaby said that through its official community plans, bylaws, and open watercourse policy, Burnaby has made the protection of waterways and surrounding natural spaces a key priority. Burnaby said its waterways were severely impacted by unbridled development in the past, but that it has dedicated significant time and resources to the restoration and protection of those waterways. For example, it has had success in rebuilding and restoring salmon stocks. Burnaby expressed concern about the possibility of compromising or reversing the successes of decades-long efforts by local volunteer stream-keepers.

Views of Trans Mountain

Trans Mountain said the proposed TMEP route on Burnaby's lands has been selected in a manner consistent with its routing principles. Specifically, in the Brunette Section, the detailed route would follow existing railway infrastructure and Highway 1.

Trans Mountain argued that during the Certificate hearing it identified a preferred and an alternate route, which were refined and considered through that hearing. The preferred route at the time was based on construction in the road or along the road corridor for the Lougheed Highway. The alternate route was through the BRCA, and was ultimately the corridor that was approved by the Board and is the subject of this detailed route hearing. Trans Mountain said that

its decision to pursue the BRCA route was based partly on its consultation, which identified prolonged construction on Lougheed Highway as an issue as well as impacts on the community.

Trans Mountain argued that the owner of the lands, BNSF, did not object to the route. Therefore, Trans Mountain viewed Burnaby's questions regarding the selection of the corridor through the Brunette Section as out of scope.

Trans Mountain further explained that the route did not go through residential lands because there were no residential lands along the route that followed its routing principles. Using its routing criteria, Trans Mountain determined that following existing infrastructure was less impactful due to differences in the intensity of the impacts on industrial and other private lands compared to residential neighbourhoods.

4.1.2 Location and Impact of the Route on the BRCA

Views of Burnaby

During the detailed route hearing, Burnaby said that although the BNSF lands are currently privately-owned, the lands were identified and designated as a conservation area for park acquisition a long time ago. Burnaby acknowledged that publicly available maps currently indicate that the BRCA ends south of the BNSF railway. Burnaby explained that this was done in order to ensure people were walking on safe, travelled, and approved trails and not on private property. In Burnaby's view, it had clearly published its intention to acquire the BNSF lands for the BRCA and, as such, Trans Mountain should have avoided choosing that particular corridor.

Views of Trans Mountain

During the oral hearing, Trans Mountain used maps from Burnaby's website to show that the lands to the north of the BNSF railway up to the Trans-Canada Highway were privately-owned and that the public should not access them. The maps from Burnaby's website also showed the BRCA as being setback from the Trans-Canada Highway. Trans Mountain explained that, while maps from an official community plan showed an intent to expand the BRCA to include the BNSF land, the lands are not currently designated as such. Trans Mountain explained that Burnaby's intent to include the BNSF lands in the BRCA was unclear during the routing process and that it dealt directly with the landowner in this area, who does not oppose the route. Trans Mountain also indicated that it attempted to engage with Burnaby on routing-type issues, but had limited success, as Burnaby refused to engage.

4.2 Methods of Construction

4.2.1 Trenchless Construction Methods

Views of Burnaby

During Burnaby's cross-examination of Trans Mountain, Trans Mountain was presented with documents it filed in the Certificate hearing that indicated the company had filed evidence stating, "[i]n the [BRCA], construction would involve the use of trenchless technology...". Burnaby also referred to the NEB Report from the Certificate hearing, where the Board had written under Views of Parties, "Trans Mountain said that it would use trenchless construction technology in the conservation area". Burnaby argued that Trans Mountain initially proposed a trenchless crossing for the entire parcel that goes under Holmes Creek and Lost Creek.¹⁶ Burnaby asserted that once Trans Mountain received its approvals from the Board and GIC, it gave up on pursuing trenchless construction in the BRCA owing to its higher cost and greater inconvenience, even though trenchless is a better environmental methodology.

Burnaby said that if a trenchless crossing is used, it would result in fewer trees being cut down through the middle of the park, preserve the creeks, and would also allow the pipeline to go under the sanitary sewer in the area. Burnaby said Trans Mountain had committed that the method would be trenchless, but that Trans Mountain is now saying it is not feasible, as it has been unable to complete a feasibility study for horizontal directional drilling (HDD). Burnaby said that its own engineers believed a trenchless crossing would be feasible, but that it had not conducted a study to support this opinion. Burnaby then said there is an onus on Trans Mountain to show that this is the best available construction methodology, and that onus has not been met.

Burnaby also said fish-bearing tributaries within the BRCA such as Holmes Creek and Lost Creek will be crossed using an invasive open cut methodology that will physically disrupt and damage both riparian and in-stream habitat. Burnaby said that these streams were enhanced by an innovative fish-passage initiative in 2012, enabling salmonids to move into the creeks' upper reaches. Burnaby said the section of Lost Creek that would be affected by the crossing is one of the most beautiful, wild, and intact streams in the entire city.

Burnaby said the use of open cut methods to cross sensitive streams is not consistent with best available management practices, and it is concerned that Trans Mountain has opted not to use trenchless directional drilling methodologies, which are less disruptive and less invasive.

Burnaby argued that if the Panel does not turn down the route through the BRCA, it should at least hold Trans Mountain to its promise to use trenchless technology.

¹⁶ Lost Creek is also referred to as Austin Creek in Trans Mountain condition filings, including its Watercourse Crossing Inventory filed in response to NEB Condition 43.

Views of Trans Mountain

During the detailed route hearing Trans Mountain said that its proposed and preferred method of open cut construction through the Brunette Section was determined through detailed engineering following issuance of the Certificate. Trans Mountain noted that the owner of the lands, BNSF, has not objected to this method of construction. Trans Mountain challenged the suggestion that they had committed to trenchless methods throughout this area and pointed to the fact that, at the time of the Certificate hearing, the proposed route in the Brunette Section included crossing under North Road as well as a crossing of the railway, which may have justified trenchless methods. Trans Mountain argued that trenchless is no longer justified.

In the BRCA, the current design was engineered to avoid impacts to the connectivity of all neighborhoods surrounding North Road. Trans Mountain said extensive effort was made to route the new TMEP pipeline adjacent to existing infrastructure in order to reduce impacts on green space. Trans Mountain said that it is not feasible to use trenchless technology throughout the BRCA. The preferred method of construction uses a very narrow right-of-way width of 20 metres, in order to address the sensitivity of tree removal in this area, with a temporary workspace that would be restored after construction. Reclamation will allow for full regeneration of trees on the ten-metre temporary workspace, and the permanent ten-metre right-of-way will be re-vegetated in accordance with the TMEP Reclamation Management Plan.

Regarding the watercourse crossings in this area, Trans Mountain said that the proposed open-trench method is the most suitable for crossing Holmes and Lost creeks. Trans Mountain argued that these creeks can be preserved and impacts limited without resorting to trenchless construction. Trans Mountain said its plan is to use well-proven techniques in accordance with regulatory requirements to ensure all these streams, fish, and adjacent riparian areas are protected during construction.

Trans Mountain said that in the Certificate, the Board imposed detailed conditions on watercourse crossing methods, including NEB Condition 43, the watercourse crossing inventory, which sets out the requirement for site-specific plans for Holmes and Lost creeks. Trans Mountain argued that Burnaby appeared unaware of these conditions.

Trans Mountain said it has demonstrated in written and oral evidence that it has used isolated crossings in world-class parks such as Jasper National Park, and that it would do the same in Burnaby. It said isolation with water quality monitoring and fish salvage is a proven and effective method for crossing watercourses, and that it is the most commonly proposed method of crossing watercourses along its entire proposed route for the TMEP.

Further, Trans Mountain said that it has been unable to complete a feasibility study for HDD in the area due to Burnaby refusing to provide, in a timely manner, the required traffic control permit needed to complete geotechnical drilling on the property required for the assessment. Trans Mountain indicated that if HDD were feasible, the required tree removal area could potentially be reduced by 50 percent. Trans Mountain also said that a trenchless crossing would require a feasible spot for the pullback and associated clearing.

4.3 Conclusion – Brunette Section

Views of the Majority of the Board

Route selection for the Brunette Section

The majority of the Board is of the view that Trans Mountain's proposed detailed route is consistent with the route proposed in the Certificate hearing, and it is the route the Board is considering in its decision. The majority of the Board regards Trans Mountain's use of its routing criteria through the BRCA as appropriate. The route could not follow the existing TMPL and therefore follows existing infrastructure, which will limit tree removal during construction.

Burnaby put forth a general argument that routing through residential areas would be better than routing through municipal lands, but did not put forth a viable alternate route to the BRCA. While there is no requirement to provide an alternate route, the general nature of Burnaby's argument about routing resulted in it being given low weight by the majority of the Board. While Burnaby discussed the previously proposed Lougheed Highway route, it did not suggest in this hearing that it was proposing it as a viable alternate route. The majority of the Board does not agree with Burnaby's general argument for routing through residential areas due to the more significant impacts it would have on individual landowners and residents of the City. Consistent with the views of the Board during the Certificate hearing, the majority of the Board is of the view that by avoiding densely populated urban areas, the proposed route through the Brunette Section limits the nature and extent of impacts of construction and operations activities for residents while balancing safety, engineering, and environmental factors.

In addition, Trans Mountain provided several examples of mitigation and enhancement measures associated with linear infrastructure, including pipelines that were successfully built through parks, public spaces and conservation areas. The majority of the Board is, therefore, of the view that that the proposed route for the TMEP is largely compatible with Burnaby's proposed future land use plans, provided both parties work together towards this end.

Location and impact of the route on the BRCA

The majority of the Board recognizes Burnaby's intent to preserve the BRCA as a conservation area and its desire to limit impacts to that area, however the Board notes that Burnaby is not the owner of these lands. Given that the current landowner, BNSF, has not opposed the route, the majority of the Board places less weight on Burnaby's arguments for re-routing or using different methods in this area.

The majority of the Board finds that Burnaby's evidence did not take into consideration the existing NEB conditions and the commitments made therein. As a result, this lowered the weight Burnaby's evidence regarding impacts was given by the majority of the Board.

Regardless of whether Trans Mountain understood Burnaby's zoning for the BNSF lands, or Burnaby's future plans for these lands, the majority of the Board views the proposed route as following the routing criteria of following existing linear infrastructure. By using the active

railway line as part of its easement, Trans Mountain is minimizing tree removal and reducing the impacts of this route.

Trenchless construction methods

With respect to HDD, Trans Mountain said the method may not be feasible, but that it has been unable to conduct a feasibility study due to the fact it could not get the appropriate permits from Burnaby. The majority of the Board recognizes that trenchless crossings are a more difficult construction technique requiring such feasibility studies, and that partly because of this, Trans Mountain has proposed an open cut method in the BRCA. The majority of the Board is of the view that the method of construction proposed in this section is appropriate because it is the most efficient and Trans Mountain has proposed a highly reduced construction footprint to limit tree removal.

The majority of the Board notes Burnaby did not challenge Trans Mountain's evidence that Burnaby did not provide the necessary traffic permits in a timely manner to allow them to conduct the feasibility study. The majority of the Board finds from the uncontested evidence that Burnaby hindered Trans Mountain's access to conduct the necessary studies in the BRCA. While we respect Member Parrish's views on this issue, we consider that, in this factual situation, his decision in dissent to request additional information would likely result in an inappropriate delay to the Project based on a lack of access that was not under the control of Trans Mountain.

In any event, the majority of the Board gave significant weight to Trans Mountain's evidence that open cut construction, including adherence to relevant conditions (none of which Burnaby considered) would result in minimal environmental impacts to Holmes and Lost creeks, and is a conventional method proposed to be used on most watercourse crossings along the TMEP route. The majority notes that the conditions related to watercourse crossings have been approved by the Board. The majority of the Board accepts Trans Mountain's evidence regarding its environmental mitigation measures and reclamation for watercourse crossings in Jasper National Park, where it also used open cut methods and indicates that this is a commonly used crossing method that can successfully be undertaken.

The majority of the Board heard from Trans Mountain that it plans to conduct isolated open cut crossings of the creeks in the BRCA, that it has extensive mitigation planned for these watercourse crossings, and that it would be working in the least-risk fish window for a short period of time. The majority of the Board finds that Trans Mountain has proposed appropriate methods of crossing and reclamation for these watercourses. It is the majority of the Board's view that, with the application of Trans Mountain's proposed mitigation measures, the long-term impacts to this area will be minimal.

The majority of the Board notes that even if a feasibility study demonstrated that an HDD would be possible, it does not necessarily mean that this method would be the most appropriate. Trans Mountain would still be required to provide a contingency method of construction in the event of an HDD failure, and that contingency would most likely be the current open cut proposed method. The majority of the Board has sufficient evidence from Trans Mountain to be satisfied

that an open cut method in the BRCA is the most appropriate method. While Burnaby claims HDD is a better method, it did not provide any detailed evidence in support of this claim.

The Majority is of the view that Trans Mountain must follow through on its commitments unless relieved of doing so by the Board. The majority, however, takes note of the following from the NEB Report:¹⁷

The Board does not require final information about every technical detail during the application stage of the regulatory process. For example, much of the information filed with respect to the engineering design would be at the conceptual or preliminary level. Site-specific engineering information would not be filed with the Board until after the detailed routing is confirmed, which would be one of the next steps in the regulatory process should the Project be approved.

In this instance, based on the proposed routing at the time of the Certificate hearing, when Trans Mountain said that the BRCA would “involve the use of HDD”, we do not find that was intended as a blanket commitment. Rather this was always going to be subject to further planning at the detailed route stage and we respectfully depart from Member Parrish’s view on this matter.¹⁸

Conclusion

Having considered all of the evidence filed on the record by both parties, the representations made at the oral portion of the detailed route hearing, and the matters described above, for the Brunette Section, the majority of the Board finds that the route proposed by Trans Mountain is the best possible detailed route of the pipeline, and the methods and timing of constructing the pipeline are the most appropriate, subject to the commitments made by Trans Mountain.

Dissent of Member Parrish

In my view, based on the record before me, I am unable to assess whether the route proposed through BRCA is the best available, and likewise cannot determine the appropriateness of the methods and timing of construction.

Trans Mountain listed a number of considerations it took into account in deciding to adopt the open cut method in the BRCA. However, and significant to my view, Trans Mountain has not demonstrated whether a trenchless method (namely, HDD) in the BRCA is feasible. Trans Mountain stated that it was unable to complete the geotechnical drilling to assess HDD feasibility owing to Burnaby’s refusal to issue, in a timely manner, the traffic control permit required to conduct the testing. It is not clear on the record what efforts were made to secure such a permit.

¹⁷ NEB Report page 7.

¹⁸ See, for example, pages 7 (as cited above) and 19 of the NEB Report.

Burnaby filed a satellite photo with notations on it that Trans Mountain had provided in response to an information request during the Certificate hearing ([B314-5](#)) (see Appendix VI). I have had regard to the NEB Report where the views of Trans Mountain, with respect to the BRCA, says:

Brunette River Conservation Area

Some Intervenors raised concerns about the proposed routing through the Brunette River Conservation Area.

Trans Mountain said that it preferred the Brunette River Conservation Area option because it would result in fewer impacts to residential and commercial properties as well as urban infrastructure. The corridor that follows the existing pipeline RoW outside of the Brunette River Conservation Area was unsuitable due to dense residential and urban development immediately on, or adjacent to, the existing pipeline RoW. **Trans Mountain said that it would use trenchless construction technology in the conservation area** [emphasis added].

I would expect Trans Mountain to make efforts to follow through on its word to use trenchless construction technology in the conservation area, notwithstanding Burnaby's refusal to issue a permit in a timely manner.

Concerns identified in the NEB Report were repeated in these proceedings in the written evidence and oral testimony of Burnaby's witness panel. The lack of a feasibility assessment in this instance leaves me with insufficient information to properly assess whether the route proposed here is the best possible, as well as the appropriateness of the methods and timing of construction.

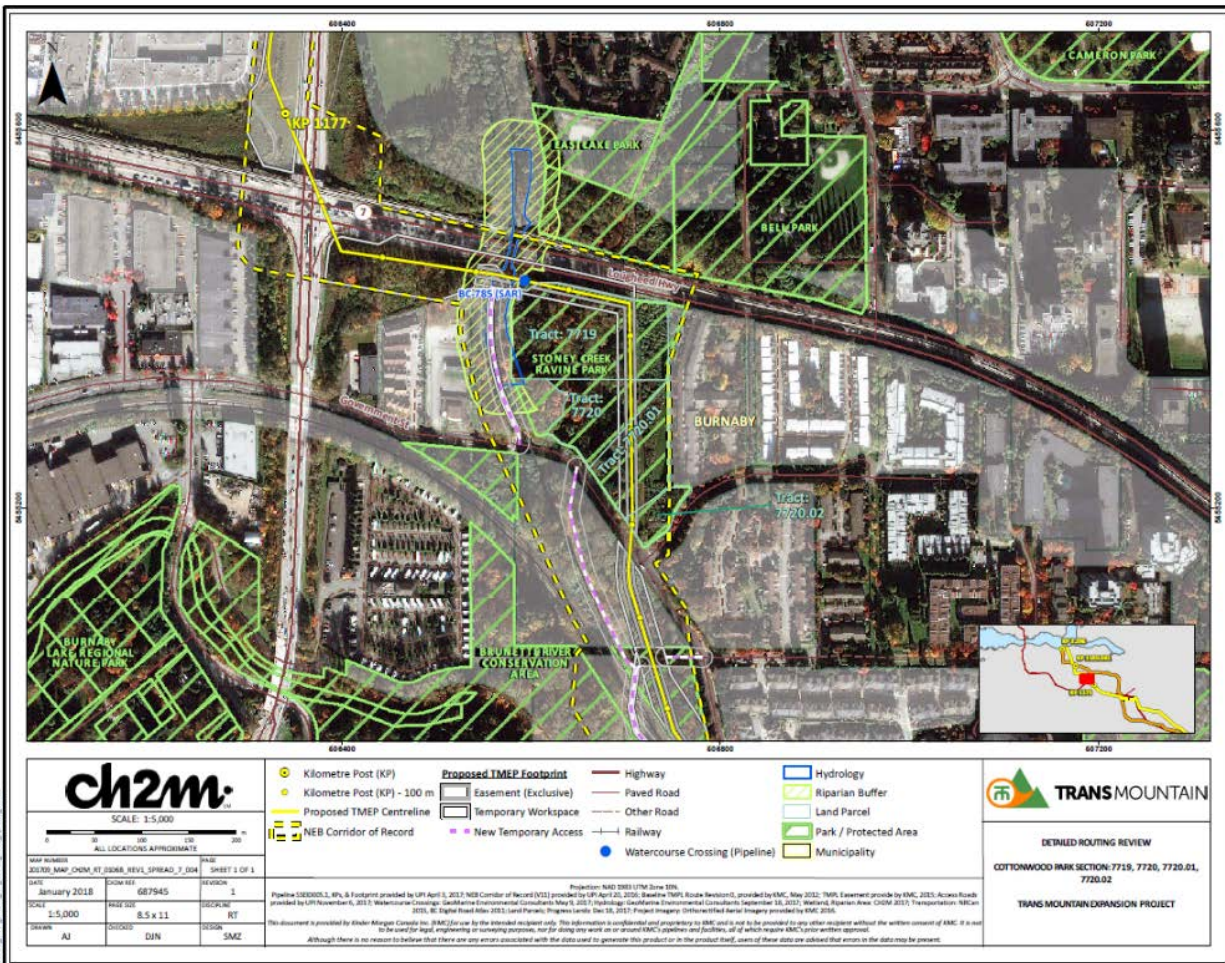
Unlike the majority, I would continue to keep this decision under reserve pending submission of a feasibility assessment for HDD in the BRCA. Furthermore, I would remind parties that the Board has tools available to facilitate discussions if the parties are willing, that include Alternative Dispute Resolution.

5. Cottonwood Park Section

5.1 Location of the Route

The specific alignment through the Cottonwood Park Section runs from KP 1176.29 to KP 1176.63 and was chosen in order to run adjacent to the existing Kinder Morgan jet fuel pipeline right-of-way, in accordance with Trans Mountain routing criteria to follow other linear infrastructure where following the existing TMPL is not feasible. It was also aligned to reduce Trans Mountain's construction activities in the vegetated area of Cottonwood Park, to minimize tree clearing, and to avoid impacts to existing utility infrastructure running parallel to the alignment at this location on the northern side of the property boundaries, as shown in Figure 3.

Figure 3 – Map of the Cottonwood Park Section¹⁹



5.1.1 Route Selection for the Cottonwood Park Section

Views of Burnaby

Burnaby said that the proposed route and methods were fundamentally inconsistent with Burnaby’s future land use plans for the Cottonwood Park Section. Burnaby was concerned about the impacts of the proposed route on the Cottonwood Neighbourhood Park Plan, which included development of a community park with intact forest and riparian areas. In Burnaby’s view, the proposed route through this area would occupy the only corridor useable for park development, would remove a ten-metre width of intact forest and eliminate a forested trail.

Burnaby said that impacts to Cottonwood Park have already occurred due to the BC Hydro and the Kinder Morgan jet fuel rights-of-way. In Burnaby’s view, another pipeline corridor through this area will sterilize the park and will not allow Burnaby to execute what was envisioned for this neighbourhood park.

¹⁹ Figure 3 is a map filed by Trans Mountain as part of its written evidence for MH-033-2017 ([A89011-25](#)).

Burnaby questioned whether Trans Mountain was aware of Cottonwood Park and Burnaby's land use plans regarding the park when selecting the route through this area. Burnaby said that Trans Mountain failed to request further information regarding Burnaby's intended use for the lands in this area. In Burnaby's view, although Trans Mountain applied its routing criteria to collocate the TMEP with existing linear facilities, it failed to consider land use planning at all. Burnaby said that construction and clearing impacts in this area would be the same, or worse, than if Trans Mountain had not followed an existing linear corridor.

Views of Trans Mountain

Trans Mountain said that it was aware that Burnaby was assembling land for use as a park in this area. Trans Mountain explained that the choice to go through this area was based on the routing criteria to try to align with existing infrastructure. One of the criteria was to be consistent with established land use planning. Trans Mountain indicated that even though the route goes through a park, that in this case the park already holds other rights-of-way. Trans Mountain stressed that the existence of other utilities within Cottonwood Park indicated that a pipeline is not incompatible with park use.

Trans Mountain said that the proposed development plans presented in Burnaby's Cottonwood Neighbourhood Park Plan are compatible with the pipeline if properly planned and designed. For example, Burnaby's conceptual plan indicated the possibility of trail development, basketball and tennis courts, and playgrounds over top of the existing Trans Mountain jet fuel pipeline.

Trans Mountain said that it will continue to seek to engage with Burnaby and would like to learn more about its plans so Trans Mountain can plan for construction accordingly. Trans Mountain indicated that it remains open to working with Burnaby to accommodate pipeline construction that aligns with existing and intended park uses.

5.2 Methods of Construction

Views of Burnaby

In its written evidence, Burnaby expressed concern about the removal of green spaces that act as visual and noise buffers within Cottonwood Park. During the hearing, Burnaby said that construction of the new TMEP pipeline would require clearing of a significant portion of the forest on the east side of the planned park and that the proposed amount of clearing would fundamentally change the complexion of Cottonwood Park. Burnaby said it believes that the community will lose the values of the protected park if any clearing takes place for temporary workspace. In Burnaby's view, in an urban setting where parkland is scarce and at a premium, impacts resulting from a pipeline and in particular, the clearing of trees, is much more significant compared to non-urbanized locations.

Views of Trans Mountain

In its reply evidence, Trans Mountain said that the pipeline in the Cottonwood Park Section will be installed using an open cut construction methodology with a reduced workspace of eight metres wide to preserve the vegetation and limit tree removal. This temporary workspace will be reclaimed in accordance with the Board-approved Reclamation Management Plan and in consideration of Burnaby's input for compatibility with future development plans.

In the Cottonwood Park Section, lands affected on the northern boundary are within the existing Lougheed Highway embankment area. This area is sloped and varies from a 2:1 to a 4:1 slope, which also contains utilities. Therefore, according to Trans Mountain, the usability of this area for trails or park lands would be minimal.

Trans Mountain acknowledged that tree clearing, especially, in parks, was an important factor to consider, however, Trans Mountain disagreed with Burnaby's statement that in an urban setting where parkland is scarce and at a premium, impacts resulting from a pipeline and clearing of trees is much more significant. In Trans Mountain's view, trees in an urban park are just as important as in a large park or any of the other parks that the pipeline traverses.

Trans Mountain said that the Pipeline Environmental Protection Plan (EPP) includes numerous environmental plans, which were developed to minimize impacts on the environment, including on parks and recreation. Trans Mountain acknowledged there will be a short-term disruption of public use in parks and recreation areas. Limited use of these areas during construction is for the safety of all members of the public. However, Trans Mountain said it is committed to reclaiming the land to a stable condition.

5.3 Conclusion – Cottonwood Park Section

Views of the Board

Route selection in the Cottonwood Park Section

The Board recognizes the value of green spaces and parks in densely populated areas such as Burnaby. The Board further recognizes that existing utility corridors in the park and the presence of Stoney Creek restrict the area that is usable for development. It is the Board's view, however, that Trans Mountain's proposed detailed route is consistent with the route proposed in the Certificate hearing, and that it is the route the Board is considering in its decision.

The Board regards Trans Mountain's use of its routing criteria through the Cottonwood Park Section as appropriate because the route could not follow the existing TMPL, and therefore, followed existing infrastructure consistent with its routing criteria.

As previously stated, consistent with the views of the Board during the Certificate hearing, the Board is of the view that by avoiding densely populated urban areas, the proposed route through Cottonwood Park Section limits the nature and extent of impacts of construction and operations activities for residents while balancing safety, engineering, and environmental factors.

The Board recognizes Burnaby's intent to develop a park in the Cottonwood Park Section and its desire to limit impacts to that area. However, the Board also recognizes that Burnaby has not yet acquired all applicable land rights to execute its plans. The Board finds that much of Burnaby's evidence was general in nature and lacked site-specific details. While Burnaby discussed the potential for harm in the Cottonwood Park Section, it did not detail its concerns, nor did it take into consideration the existing NEB conditions and the commitments made during the Certificate hearing. As a result, these submissions were given low weight by the Board.

Trans Mountain provided several examples of mitigation and enhancement measures associated with linear infrastructure, including pipelines that were successfully built through parks, public spaces and conservation areas. The Board is, therefore, of the view that the TMEP route is largely compatible with Burnaby's proposed future land use plans, provided both parties work together towards this end.

Methods of construction

The Board notes Burnaby's concerns regarding the amount and location of temporary workspace in this area. The Board also acknowledges Trans Mountain's efforts to address Burnaby's concerns by reducing the temporary workspace to eight metres. The Board is, therefore, of the view that Trans Mountain has provided reasonable ways of reducing the workspace in the Cottonwood Park Section by using existing cleared areas and by following existing utilities.

Conclusion

The Board is of the view that a pipeline right-of-way can be compatible with numerous surface uses, including trails and pathways. The Board notes that the illustrations provided by Burnaby for the future layout of Cottonwood Park may require the clearing of trees, although the Board accepts that the illustrations are only conceptual at this stage. The Board notes there may be mutually beneficial plans that could be made to support both pipeline and park recreational uses into the future. The Board also notes that this is another opportunity for Burnaby and Trans Mountain to achieve more mutually acceptable outcomes by working together.

Having considered all of the evidence filed on the record by both parties, the representations made at the oral portion of the detailed route hearing, and the matters described above, for the Cottonwood Park Section, the Board finds that the route proposed by Trans Mountain is the best possible detailed route of the pipeline, and the methods and timing of constructing the pipeline are the most appropriate, subject to the commitments made by Trans Mountain.

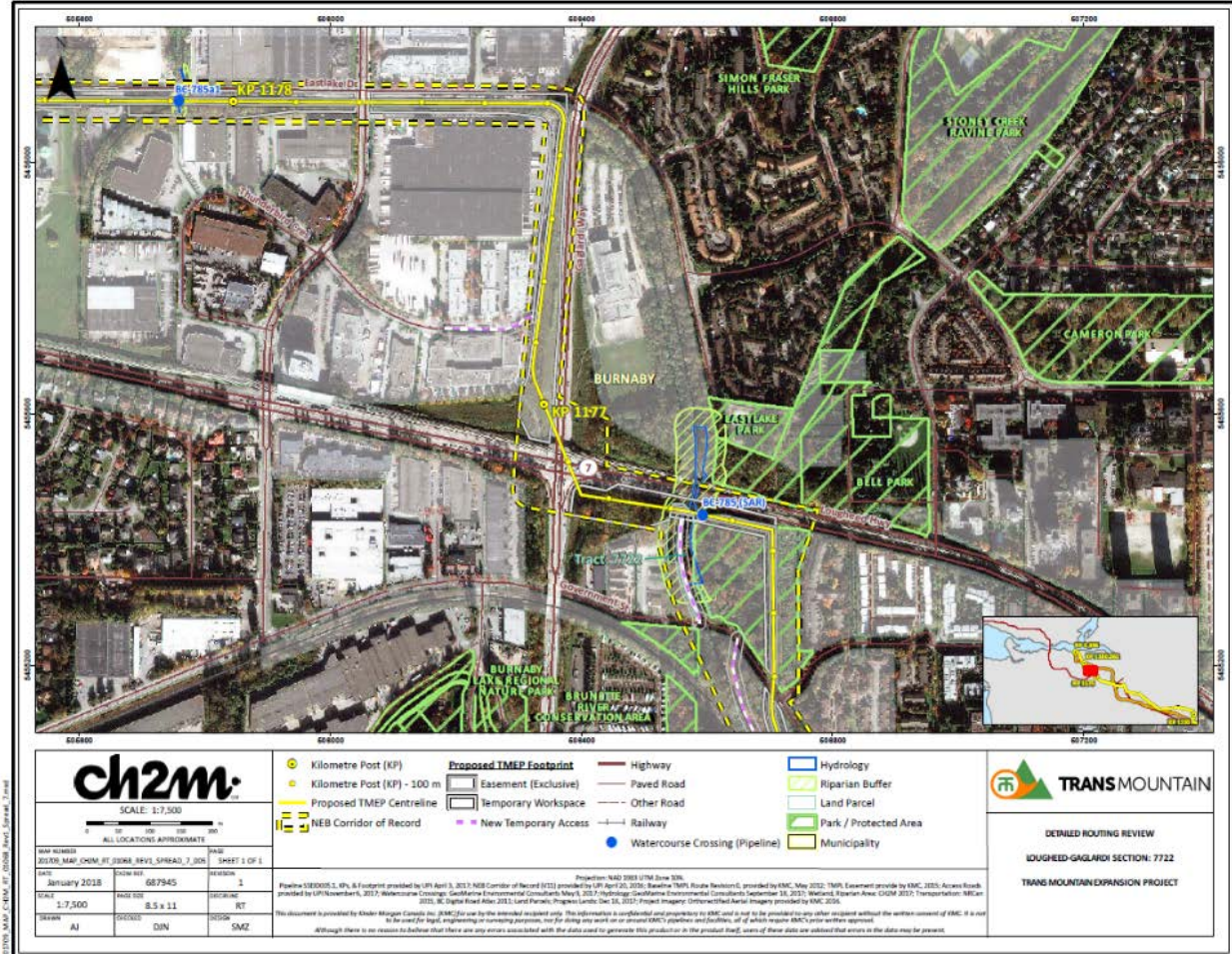
6. Lougheed-Gaglardi Section

6.1 Location of the Route

Trans Mountain's routing corridor with respect to the Lougheed-Gaglardi Section runs from KP 1176.63 to KP 1177.46 and was established in accordance with the routing principle of paralleling existing linear infrastructure. This specific alignment follows existing property boundaries and was established to cross through the intersection of Lougheed Highway and Gaglardi Way at a 45-degree angle. Trans Mountain also said that, at the intersection of Lougheed and Gaglardi, the corridor was specifically widened to accommodate multiple alignment options through the intersection.

Burnaby did not raise any site-specific issues or concerns regarding the location of the route in the Lougheed-Gaglardi Section.

Figure 4 – Map of Lougheed-Gaglardi Section²⁰



²⁰ Figure 4 is a map filed by Trans Mountain as part of its written evidence for MH-033-2017 ([A89011-27](#)).

6.2 Methods of Construction

At the intersection of Lougheed and Gaglardi, the corridor was specifically widened to accommodate multiple alignment options through the intersection. Stoney Creek would be crossed utilizing an aerial pipe bridge in order to ensure that an open cut construction methodology is not required through Stoney Creek, as shown in Figure 4.

West of Stoney Creek, construction would be an open cut method up to Lougheed Highway and a guided auger bore trenchless method to cross the Lougheed Highway. The open cut section will have a reduced workspace in order to preserve the existing vegetation and limit the trees to be removed.

6.2.1 Public Use, Access and Traffic

Views of Burnaby

In its statement of opposition for the Lougheed-Gaglardi Section, Burnaby indicated it was concerned about the impacts of construction on pedestrian and vehicle traffic near the Lougheed Highway, including pedestrian facilities connecting the business park to the SkyTrain station. Burnaby also raised concerns with the impacts of construction and operation on public use and access to the Burnaby Mountain Urban Trail.

In order to manage these and other concerns regarding public use, access and traffic, Burnaby pointed to the Associated Engineering report which included several proposed conditions.

Views of Trans Mountain

In its written evidence, Trans Mountain explained that it would use main arterial roads to gain access in and out of Burnaby. Access to all work sites and access points will be completely controlled and work sites will be fenced off to provide separation of active work areas from public access. No open excavation areas will be accessible by the public. In addition to fencing, each work area will be monitored by security guards.

Trans Mountain also said that its Stakeholder, Engagement and Communications Team will provide updates to stakeholders and the public throughout the construction phase of the new TMEP pipeline. Updates will include the construction schedule, any potential impacts to traffic flow or access, as well as planned mitigation to address those impacts. Traffic impacts will also be communicated through media and established third-party traffic information sources where applicable.

With regards to the Burnaby Mountain Urban Trail, Trans Mountain said at the oral hearing that there is one section of the trail that parallels Eastlake Drive, and another section of the trail that crosses the Stoney Creek and Broadway areas. Trans Mountain confirmed that there will be impacts to the Burnaby Mountain Urban Trail, however, in all cases where the trail is impacted, Trans Mountain will provide alternate access so that continuity is maintained during construction.

Trans Mountain said that the overall duration of construction in proximity to the trail is anticipated to be approximately one month. Trans Mountain also confirmed that construction will not block pedestrian access to the Production Way - University SkyTrain Station from the business park northwest of the intersection of Lougheed and Gaglardi.

6.3 Conclusion – Lougheed-Gaglardi Section

Views of the Board

Public use, access and traffic

The Board acknowledges Burnaby's concerns regarding the potential impact of construction on public use, access and traffic in dense urbanized areas like the Lougheed-Gaglardi Section. The Board notes that Trans Mountain committed to implementing various traffic and access plans to accommodate site-specific conditions for each location during the Certificate hearing. The Board also notes that Trans Mountain provided examples of mitigation measures it will employ to control pedestrian and vehicle traffic and ensure public safety. The Board considers the traffic and access concerns raised by Burnaby to be temporary in nature, and that they can be largely mitigated.

The Board acknowledges that Trans Mountain has committed to notify and consult with current land users and landowners, including Burnaby, regarding public use, access and traffic. The Board reminds Trans Mountain that it is responsible for the safe management of traffic, cyclists and pedestrians within the TMEP workspace during construction. The Board is, therefore, of the view that existing conditions associated with the Certificate hearing will adequately address Burnaby's concerns, and that no additional mitigation is necessary. The Board encourages both parties to work collaboratively through the Technical Working Groups to effectively address any site-specific concerns. The Board notes that this is an opportunity for Burnaby and Trans Mountain to achieve more mutually acceptable outcomes by working together.

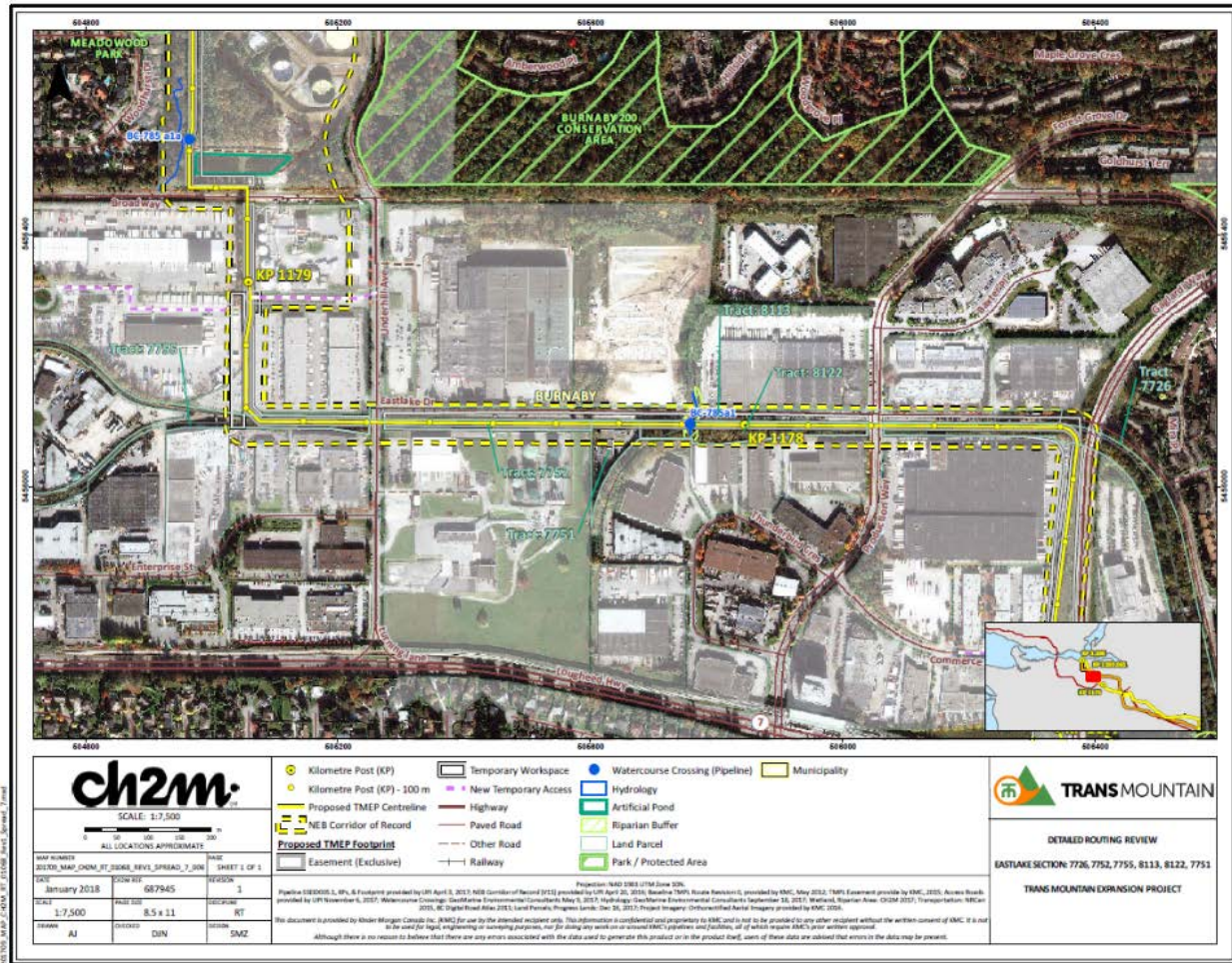
Having considered all of the evidence filed on the record by both parties, the representations made at the oral portion of the detailed route hearing, and the matters described above, for the Lougheed-Gaglardi Section, the Board finds that the route proposed by Trans Mountain is the best possible detailed route of the pipeline, and the methods and timing of constructing the pipeline are the most appropriate, subject to the commitments made by Trans Mountain.

7. Eastlake Section

7.1 Location of the Route

The routing corridor with respect to the Eastlake Section runs from KP 1177.46 to KP 1178.79 and follows the extension of an existing decommissioned rail spur line or existing Metro Vancouver utilities in accordance with Trans Mountain’s routing criteria to follow existing linear disturbances, as shown in Figure 5.

Figure 5 – Map of the Eastlake Section²¹



7.1.1 Brunette-Fraser Greenway Project

Views of Burnaby

In its statement of opposition and written evidence, Burnaby said that the proposed route and methods were fundamentally inconsistent with Burnaby’s future land use plans involving parks and protected areas for the Brunette-Fraser Greenway Project, an important ecological linkage

²¹ Figure 5 is a map filed by Trans Mountain as part of its written evidence for MH-033-2017 ([A89011-26](#)).

between local green spaces. Specifically, Burnaby said that 12,000 square metres of the Brunette-Fraser Greenway Project will be forever alienated from use for its intended purpose based on a ten-metre-wide right-of-way. Burnaby explained that the Brunette-Fraser Greenway Project, proposed in partnership with Metro Vancouver, particularly along Eastlake Drive, was intended to create a connector among green spaces, which is an important value that Trans Mountain should have considered. Burnaby said that the Brunette-Fraser Greenway Project was ideal for trying to link places together because it would pull all the park and conservation areas into one contiguous greenway plan.

In the Eastlake Section, Burnaby pointed out that the Lake City Community Plan, one of five community plans the Brunette-Fraser Greenway Project crosses, provided for acquisition of rights over the Eastlake Drive frontage for the purposes of urban trails and greenways and that the proposed route would prevent Burnaby from acquiring these rights and completing development.

Burnaby acknowledged that the Lake City Business District is a developed industrial area and that most of the activities within this area, with the exception of some institutional uses, are for warehousing, light manufacturing, high-tech and movie studios. Burnaby explained that the intention is to develop a site-specific design for the Brunette-Fraser Greenway Project in this area, and that the ultimate goal is to develop a winding pathway and re-vegetate Eastlake Drive with a mix of different tree species.

Burnaby disagreed with Trans Mountain's view that the new TMEP pipeline route is compatible with the proposed Brunette-Fraser Greenway Project. Burnaby said that several of its intended activities could not take place on lands that are encumbered by a pipeline right-of-way, including tree planting. During the oral hearing Burnaby further argued that greenways should not be considered linear infrastructure as that misunderstands the purpose of a greenway.

Views of Trans Mountain

Trans Mountain said that existing utility and the proposed new TMEP pipeline rights-of-way can be compatible with many park uses including the access and walking trails planned for the Brunette-Fraser Greenway Project. Trans Mountain said that compatible use of the right-of-way can be explored further as part of the Technical Working Group discussions between Trans Mountain and Burnaby. Trans Mountain identified the Forest Grove neighbourhood as an example where an existing Trans Mountain right-of-way is used as a pathway through a park. Trans Mountain also said that it has been involved in natural gas pipeline projects in the past where trails were created to link areas for pedestrians and cyclists.

In its written reply evidence, Trans Mountain said that many of the green spaces identified for the Brunette-Fraser Greenway Project are highly disturbed with low biodiversity. Specifically, Trans Mountain said that the timber in this area is not intact mature deciduous forest, but rather a mix of boulevard trees and immature deciduous regeneration. The only standing timber in this area is bound by roadways and commercial development.

Trans Mountain said it was willing to work with Burnaby to help develop amenities that might result from the project and stressed that Burnaby's plans for the Brunette-Fraser Greenway Project were compatible with the proposed pipeline. In Trans Mountain's view, this is an opportunity to work together to develop the area into something that would be very good for Burnaby.

7.2 Methods of Construction

The Eastlake Section will be constructed utilizing a shored trench box construction method. This allows for the most reduced footprint possible as the pipe trench will only be three metres wide. Each road crossing along the section will be installed using a guided auger bore trenchless method, thereby minimizing impact to the travelling public.

7.2.1 Impacts on the Lake City Business Centre Plan

Views of Burnaby

In its written evidence, Burnaby said that it adopted the Lake City Business Center Plan in order to transform the Lake City area into a cohesive, attractive, and productive Business Center and that it identified a number of land parcels within the abandoned BNSF railway as part of these plans. Burnaby is of the view that the proposed route for the new TMEP pipeline is incompatible with these plans.

Views of Trans Mountain

Trans Mountain confirmed that potential impacts on the areas associated with the Lake City Business Centre Plan would be limited to the construction phase of the TMEP. Trans Mountain said that, with the implementation of standard mitigation measures, the new TMEP pipeline would not have any long-term impacts on Burnaby's business centre plans. Trans Mountain said that the new TMEP pipeline will not be incompatible with what Burnaby aspires to do in this area. Through the Technical Working Group and Sub-Working Group processes, Trans Mountain would endeavour to establish a finished surface that is compatible with both the need for pipeline safety and Burnaby's plans.

7.2.2 Noise and Visual Buffers

Views of Burnaby

Burnaby indicated its concern about the removal of green spaces that act as visual and noise buffers in the Eastlake Section. Burnaby said that the Eastlake Section is a long and narrow green buffer that separates one industrial use from another. As a result, it significantly impacts the experiential value of visitors, walkers, and even those in cars along the road.

Views of Trans Mountain

In its written evidence Trans Mountain said that the environmental impacts associated with construction, including noise and visual buffers, were adequately addressed through the extensive mitigation measures presented in its Pipeline EPP. Additionally, as part of the Board's conditions for the Certificate, Trans Mountain also prepared Noise Management Plans, a Light Emissions Plan, and a Visual Impact Plan.

Trans Mountain explained trees cannot be replanted on top of the new TMEP pipeline permanent easement for safety reasons. Trans Mountain said it is committed to working with Burnaby on the construction plans and requirements for tree removal for temporary construction workspace with the intent of minimizing removal, to the extent practical. Trans Mountain said it is committed to evaluating and replacing ornamental trees or shelterbelts in select areas. Trans Mountain is committed to reclaiming the land to a stable condition as well as implementing special reclamation measures (i.e., tree replacement) as set out in the Reclamation Plan at select locations such as watercourses and wetlands.

7.3 Conclusion – Eastlake Section

Views of the Board

Brunette-Fraser Greenway Project

The Board recognizes the value of Burnaby's greenways not only as urban pathways, but for their ecological functions as well. The Board notes that Trans Mountain followed its routing criteria through this area by following existing roads and other infrastructure. Although Trans Mountain's routing criteria did not specifically list greenways or pathways as examples of linear infrastructure, the Board considers following them as an appropriate application of the intent of the criteria as following them minimizes the creation of new linear corridors. Given that plans for the Brunette-Fraser Greenway are not finalized, the Board is of the view that Burnaby can work with Trans Mountain during the construction and reclamation planning phases to find solutions that work for both parties.

The Board views the construction of the pipeline as a short-term disruption for which Trans Mountain has planned traffic and pedestrian management and other mitigation measures that will minimize disruptions.

Impacts on the Lake City Business Plan

The Board understands that there may be some short-term disruption to traffic and pedestrians through this area during construction, however, with Trans Mountain's proposed mitigation measures, the Board is of the view that the disruption to commuter, cycling and walking traffic will be minimal. The Board notes Trans Mountain has made changes to its construction plans in this area due to the concerns raised by Burnaby in its statement of opposition, such as removing extra temporary workspace where possible, in addition to proposing mitigation.

Noise and visual buffers

The Board is of the view that construction of the TMEP in the Eastlake Section will have short-term impacts, and that Trans Mountain has provided adequate mitigation measures through this proceeding and in its condition filings for the TMEP to minimize impacts to pathway users, business owners and clients in this area.

Conclusion

The Board recognizes the need for Trans Mountain to maintain a right-of-way during pipeline operations and to leave the right-of-way cleared of large trees. The Board notes that Trans Mountain has provided extensive mitigation for the Eastlake area in its condition filings, including its EPP and Environmental Alignment Sheets. The Board finds that Trans Mountain's proposed reclamation measures will minimize long-term impacts to vegetation by minimizing the number of trees removed and reclaiming temporary workspace. Additional site-specific mitigation is unnecessary.

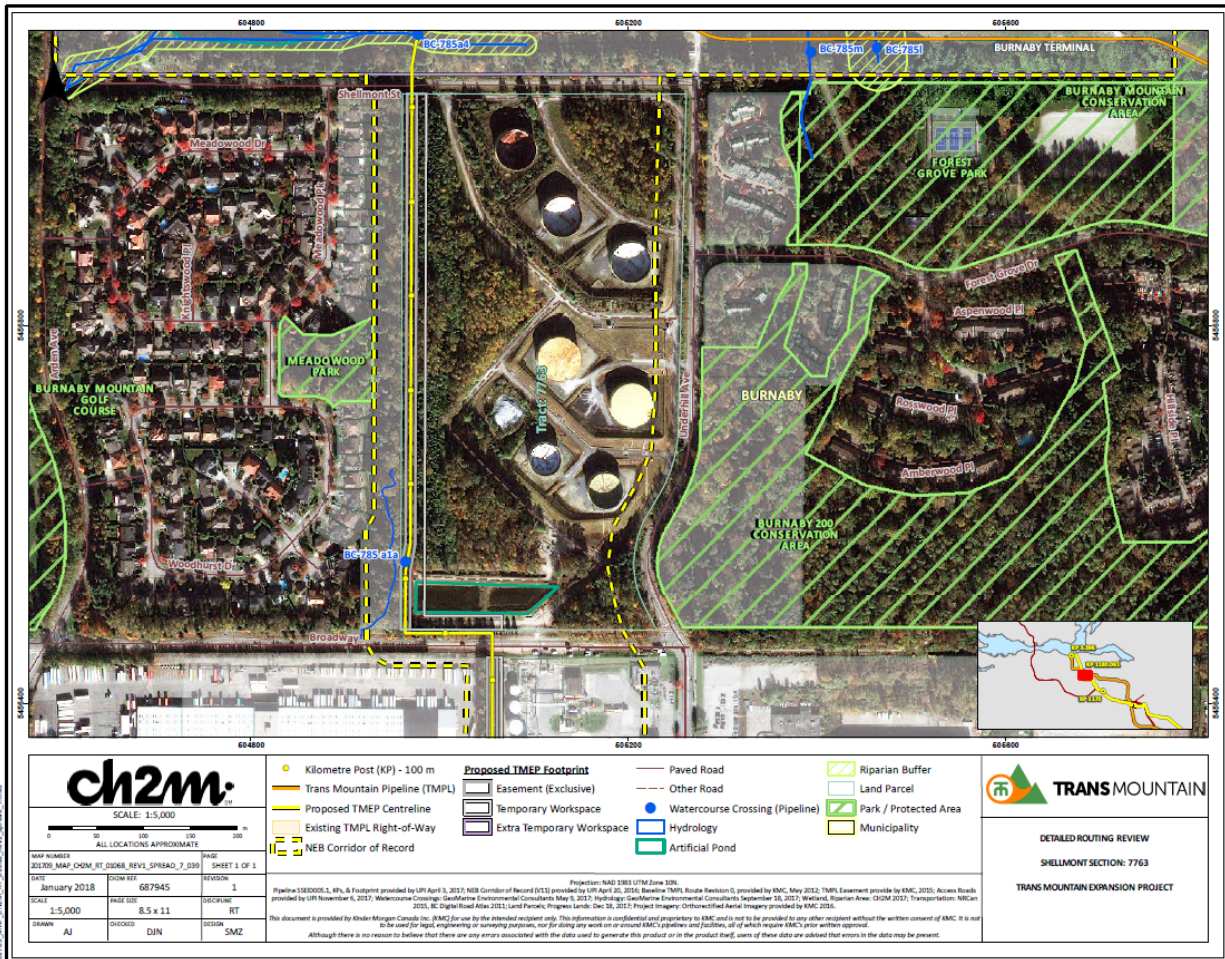
Having considered all of the evidence filed on the record by both parties, the representations made at the oral portion of the detailed route hearing, and the matters described above, for the Eastlake Section, the Board finds that the route proposed by Trans Mountain is the best possible detailed route of the pipeline, and the methods and timing of constructing the pipeline are the most appropriate, subject to the commitments made by Trans Mountain.

8. Shellmont Section

8.1 Location of the Route

The routing corridor with respect to the Shellmont Section runs from KP 1178.79 to KP 1179.90 and uses existing lands owned by Shell Canada, in accordance with Trans Mountain's routing criteria to following other existing linear infrastructure where following the existing TMPL is not feasible. The proposed alignment was offset from the Shell property boundaries to maintain a vegetated buffer zone separating the TMEP from adjacent residential properties. The pipeline will be constructed down an existing Shell Canada access road and the temporary workspace will be placed east of the access road to maximize the buffer left between the residences to the west and the access road, as shown in Figure 6.

Figure 6 – Map of the Shellmont Section²²



8.1.1 Route Selection in the Shellmont Section

Views of Burnaby

Burnaby asserted that the proposed route and methods through the section between Broadway and Shellmont Street are inconsistent with Burnaby’s land use plans in the area. In Burnaby’s view, the proposed route would contravene a restrictive covenant to provide a forested, landscaped buffer area to separate the Forest Hills/Meadowood Park residential area from Shell Canada’s oil storage tank facility. The restrictive covenant was registered in 1981 on Shell Canada’s title to the lands and was established to ensure that Shell Canada would maintain the buffer as part of Burnaby’s community planning. Burnaby also stated that the buffer zone was meant to protect against noise, dust, and visual pollution. In Burnaby’s view, the proposed route alignment for the new TMEP pipeline would lead to the clearing of mature forests in the buffer, breaching the terms of the covenant. Burnaby also said it raised its concerns directly with Shell Canada, but that it has not had any further contact since exchanging letters in mid-2017.

²² Figure 6 is a map filed by Trans Mountain as part of its written evidence for MH-033-2017 ([A89011-28](#)).

Burnaby acknowledged that Trans Mountain is correct, in law, that the restrictive covenant is only enforceable against Shell Canada, not Trans Mountain. However, Burnaby argued there is no question the restrictive covenant is being breached. Burnaby said the entire neighbourhood that was built and authorized subject to that restrictive covenant is paying the price.

Burnaby also said the maps Trans Mountain provided for this area showed a corridor that spanned the entire Shell Canada property and that Trans Mountain did not state at any point where it intended to put the pipeline within this corridor. In Burnaby's view, there were no opportunities to highlight the issue to area residents or to talk about alternatives and impacts. Burnaby questioned whether or not Trans Mountain will comply with the restrictive covenant and whether Trans Mountain consulted with Burnaby about the buffer.

Views of Trans Mountain

Trans Mountain said it appreciates that Burnaby has a restrictive covenant where the intent is to maintain a buffer between the residential neighbourhood and Shell Canada's facility. Trans Mountain further indicated that the proposed route was planned to accommodate the buffer in the restrictive covenant area and that Shell Canada agreed that this route was preferable. Trans Mountain explained that there is a 30-metre-wide tree buffer west of the access road, which will not be affected by the TMEP. To the east of the access road, temporary workspace will be required and reclaimed after construction. In Trans Mountain's view, due to its commitment to locate the pipeline below an existing access road and to reclaim temporary workspace, the restrictive covenant in this area will not be breached.

Trans Mountain also indicated it would be prepared to work with Burnaby to determine the width of the easement compared to the road and see if Trans Mountain can narrow down the cleared area within the easement so that it would be in conformance with the covenant.

At the hearing Trans Mountain confirmed that it has been consulting with the landowner, Shell Canada. Trans Mountain confirmed it had suggested the route and it was "confirmed by Shell" as what Shell would prefer. Trans Mountain also said in a meeting on 5 July 2017 it discussed the alignment through the area with the City.

Trans Mountain argued that even if the restrictive covenant was being contravened, which it is of the opinion it is not, from a legal standpoint this should not have any bearing on the Board's decision in the detailed routing process. Additionally, Trans Mountain argued that, while Shell Canada must comply with the restrictive covenant, it does not apply to Trans Mountain. Trans Mountain indicated that Shell Canada cannot force Trans Mountain to comply with the Covenant, nor can a covenant be used to restrict the Board and federal cabinet from authorizing the TMEP. Trans Mountain said that if Burnaby has concerns regarding the restrictive covenant, it should pursue those with Shell Canada. In its reply evidence, Trans Mountain explained there is no other feasible route because the next section of land includes the tunnel portal for Burnaby Mountain, giving them little flexibility in the routing.

8.2 Methods of Construction

Views of Burnaby

During the hearing, Burnaby questioned Trans Mountain as to whether there were less invasive methods for passing through the buffer area. Burnaby suggested in cross-examination that a trenchless method would be less invasive, and asked whether Trans Mountain had conducted feasibility studies to determine if it would be possible.

Burnaby indicated its concern about the amount of clearing Trans Mountain proposed for the permanent right-of-way and temporary workspace. Burnaby pointed out that the access road is only five metres wide and additional clearing for the right-of-way would require permanently clearing trees within the covenant area in addition to the workspace.

Views of Trans Mountain

In response to Burnaby's questions about methods of construction, Trans Mountain indicated that the elevation gain across the property caused them to rule out HDD. The company said it did not conduct additional feasibility studies on HDD as the elevation gain of this type would cause "issues with maintaining pressure, drilling mud, in the bore hole" and it was determined to not be practicable.

In its written evidence, Trans Mountain said that the construction plan for this section of the new TMEP pipeline route was designed to maintain the existing buffer between residences and the existing Shell Canada access road. The existing road is approximately five metres wide. A ten metre-wide right-of-way would be achieved by maintaining an additional five metres of cleared space to the east of the access road. The ten metres is required for one-way access from Broadway Street to Shellmont Street for construction vehicles and for heavy equipment required for pipeline construction, which will be reclaimed after construction. Trans Mountain said that minimizing the area used for temporary construction workspace was a standard practice as it minimized cost, environmental impacts, and the amount of restoration required.

Trans Mountain said that even though there will be some space that is permanently cleared, it would be to the east of the access road and is much narrower than Trans Mountain's typical 18-metre-wide right-of-way. Trans Mountain confirmed that the planned reclamation program following construction of the new TMEP pipeline will re-establish the buffer as required by the restrictive covenant.

During the detailed route hearing Trans Mountain also confirmed that it will continue to work with Shell Canada and Burnaby to minimize the cleared stretch through this area.

8.3 Conclusion – Shellmont Section

Views of the Majority

Route selection through the Shellmont Section

We recognize that the restrictive covenant between Shell Canada and Burnaby is not for the Board to enforce or interpret. As such, while we are aware of the restrictive covenant, we did not assign significant weight to Burnaby's argument that the covenant should determine the routing decision. With respect, we believe that Member Parrish has given undue weight to the covenant in his dissent and inappropriately allowed it to influence his decision.

Regardless of the existence of the covenant, we are of the view that minimizing impacts to the entire buffer area (which functionally includes areas covered by the covenant and those beyond it, closer to Shell's tank farm) is an important objective. Burnaby noted that the buffer area was meant to protect against noise, dust, and visual pollution for the residents of the Meadowood/Forest Heights neighbourhood, and the Board considers Trans Mountain's evidence to be consistent with respecting this purpose. Trans Mountain has minimized disturbance of the entire buffer area by following the existing access road, reducing its right-of-way width and temporary workspace, and planning additional reclamation and replanting measures in this area.

Methods of construction

We accept that Trans Mountain's focus through the Shellmont area is on avoiding the western buffer between residences and the access road and ensuring overall minimum tree removal. We note Trans Mountain's statement that it would "be prepared to work with Burnaby to determine the width of the easement compared to the road and see if Trans Mountain can narrow down the cleared area within the easement so that it would be in conformance with the covenant" and we expect this to occur.

We are of the view that the methods of construction are appropriate, given that the conventional open cut method is fully adequate for this area, and would produce less noise than other methods. We also accept that Trans Mountain's assessment of the impact of the elevation gain on the feasibility of HDD to be adequate based on the opinions of their technical experts; detailed feasibility studies are not required for every choice a company makes for construction. Trans Mountain has appropriately proposed reducing the width of its temporary workspace and easement on the Shell Canada lands. In turn, this would reduce the number of trees required to be removed.

Conclusion of the majority

We note that Burnaby did not provide any evidence during the detailed route proceeding about alternative routes or methods through the Shellmont area. That said, the overall onus remains with Trans Mountain and we find it has been met. We find that the evidence put forth demonstrates that by co-locating the new TMEP pipeline with the access road, the route selected by Trans Mountain through the Shellmont area is constructible from an engineering perspective.

It also minimizes environmental disturbance, minimizes the impact on the entire buffer area between residents and the Shell Canada facilities.

Significant to the majority's decision as well, is that the landowner, Shell Canada, did not oppose the applied-for route and its views, as transmitted through Trans Mountain, are that it supports the route and methods of construction. There is no requirement for a landowner to participate in a detailed route hearing if they are unopposed, nor do we find it appropriate to draw any negative inferences against them for making the decision not to participate.

For these reasons, it is the best possible route through this area and the methods and timing of constructing the pipeline are the most appropriate, subject to the commitments made by Trans Mountain.

We note that Trans Mountain has made commitments with respect to Burnaby residents in the Shellmont area in another detailed route hearing.²³ Whether the commitments Trans Mountain has made elsewhere will resolve any of Burnaby's concerns are for Burnaby itself to determine. For this decision, we relied only on the evidence filed on the record for this hearing.

Dissent of Member Parrish

In my view, and based on the record before me, I cannot conclude that the proposed route through the Shellmont area is best or that the methods are most appropriate.

The City of Burnaby was concerned that the proposed detailed route would breach the restrictive covenant that exists between Shell Canada and Burnaby. The restrictive covenant was put in place when Shell Canada sold part of their land for development. I am of the opinion that to the extent possible, the area covered by the restrictive covenant should be honoured. I am not deliberating whether or not the proposed construction and route would breach the restrictive covenant. Where other routing options exist, I believe areas covered by covenants such as these should be avoided, or impacts to them should be reduced. The proposed route and methods in my opinion, do neither of these.

In my view the absence of Shell Canada in these detailed route hearings does not assist in making a decision, as we do not have their views on the record as they relate to honouring the restrictive covenant and the potential for other routes through the approved corridor.

I would expect the company to perform a more extensive review of alternate routes, especially where concerns are raised, and a broadminded approach to considering and avoiding impacts to the extent possible. I would also expect that if avoiding impacts were impossible, and the route were still determined to be the best, the company would thoroughly review its proposed methods of construction, again with a view to address the concerns of all affected parties.

²³ Consolidated detailed route hearing for MH-049-2017; MH-050-2017; MH-051-2017; MH-052-2017; MH-057-2017; and MH-058-2017.

Trans Mountain's written evidence and oral testimony lacked the analysis that would satisfy me that the chosen route and construction methods were the product of such a review.

Unlike the majority, I would keep this decision under reserve and direct Trans Mountain to conduct studies of alternative routes and/or methods that eliminate or further reduce the impact on those lands covered by the restrictive covenant, or to more completely justify why the proposed route is the best possible, and methods are most appropriate, as opposed to the most convenient. I would also encourage further discussion with the City of Burnaby. To this end, the Board has capacity in the form of Alternative Dispute Resolution facilitation. After review of the additional studies, I would be in a position to make a decision.

9. Summary of Commitments for All Sections

During the hearing, Trans Mountain committed to:

- continuing to engage and remaining open to discussions with Burnaby around opportunities for improved mitigation and reclamation enhancement as part of detailed construction planning;
- completing its Tree Management Plan for Burnaby prior to construction;
- continuing conversations through its Technical Working Groups about proposed mitigation for all fish-bearing streams Trans Mountain would impact in the Burnaby
- working with Burnaby to narrow the cleared areas for the access and the access road for operations for the Shellmont location; and
- providing alternate access for the Burnaby Mountain Urban Trail where it would be crossed and temporarily unavailable.

10. Board Decision for Detailed Route Hearing MH-033-2017

The Board appreciates the time spent by Burnaby and Trans Mountain in discussing their concerns at the detailed route hearing.

The Board notes that Burnaby filed six separate statements of opposition for its lands. Much of the focus of this hearing was on the Brunette and Cottonwood Park sections, with little discussion raised at the oral hearing about the other sections.

The original routing criteria and impacts to the environment were assessed by the Board during the Certificate hearing for the TMEP. The routing criteria and the corridor were approved with the subsequent issuance of Certificate OC-064. The Board attached 157 conditions to that approval, including those relating to watercourse crossings, EPPs, and reclamation plans.

Having considered all of the evidence filed on the record by Burnaby and Trans Mountain, the representations made at the oral portion of the detailed route hearing, and the matters described above, the Board finds that the route proposed by Trans Mountain is the best possible detailed route of the pipeline, and the methods and timing of constructing the pipeline are the most appropriate, subject to the commitments made by Trans Mountain and save for the dissenting reasons Member Parrish has offered with respect to the Brunette and Shellmont sections.

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

Trans Mountain is reminded that the conditions of approval in Certificate OC-064 apply to the construction and operation of the TMEP on Burnaby and any other lands.



L. Mercier
Presiding Member

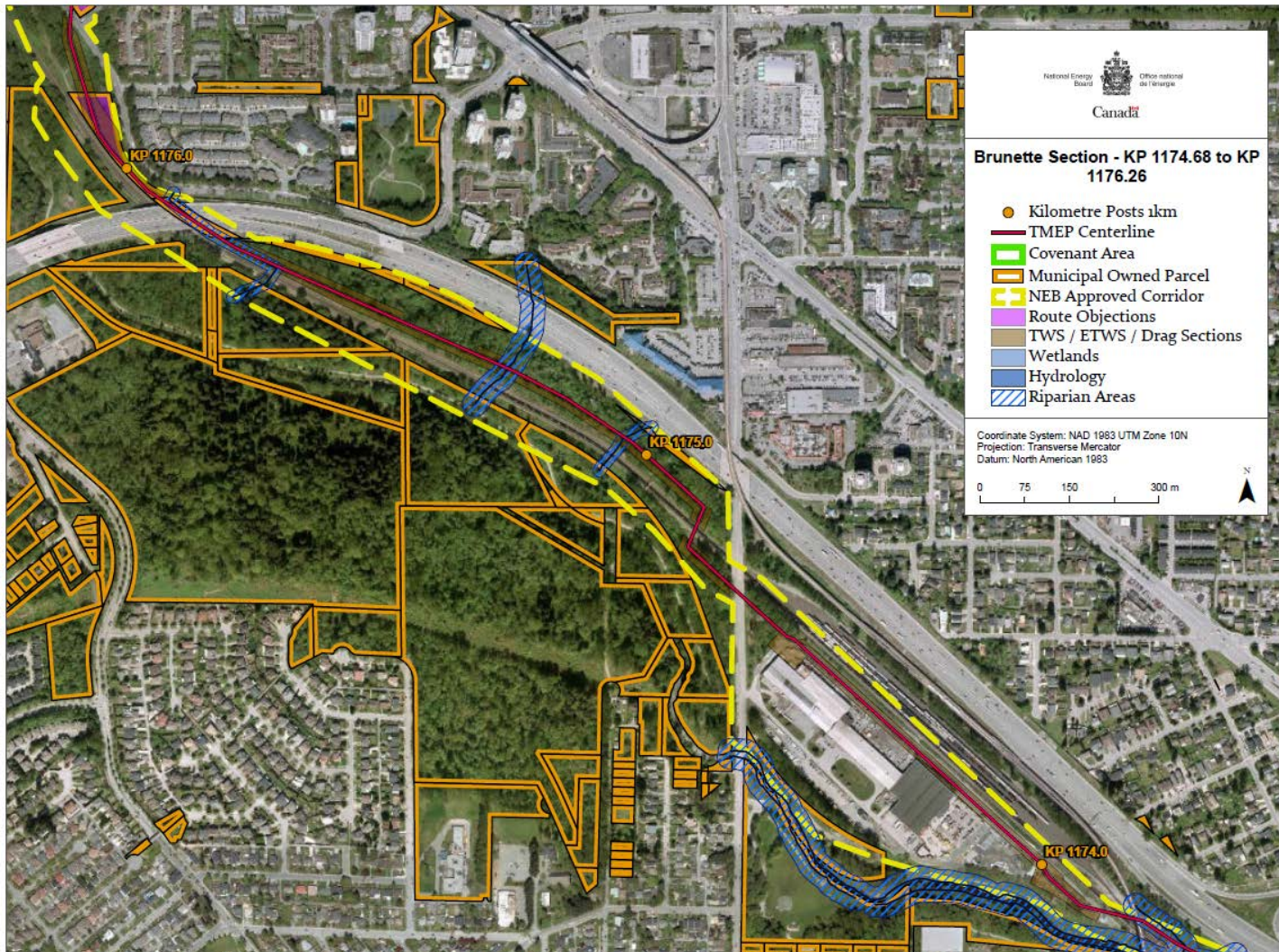


S. Parrish
Member



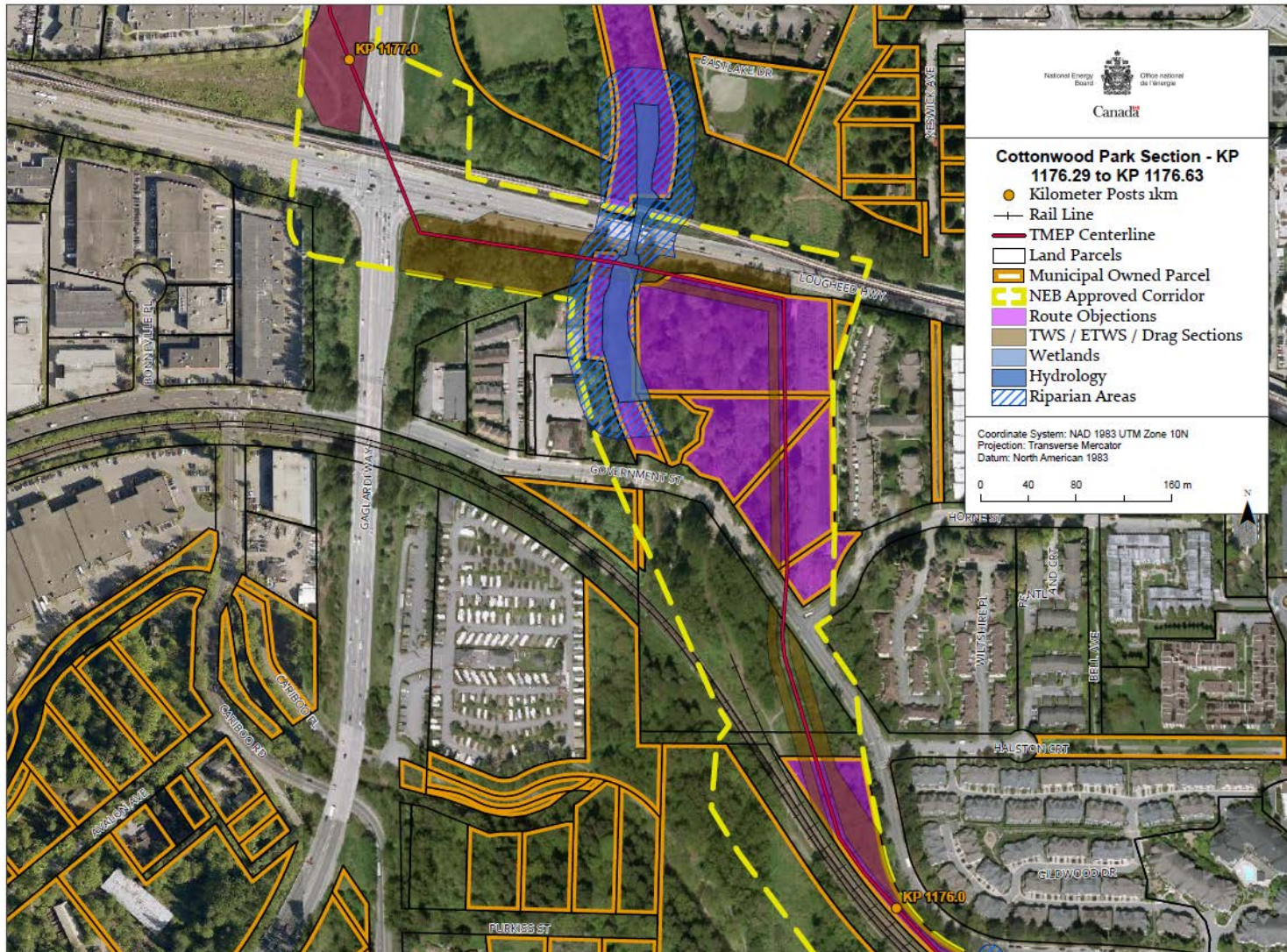
J. Ballem
Member

Appendix I – Map of the Brunette Section



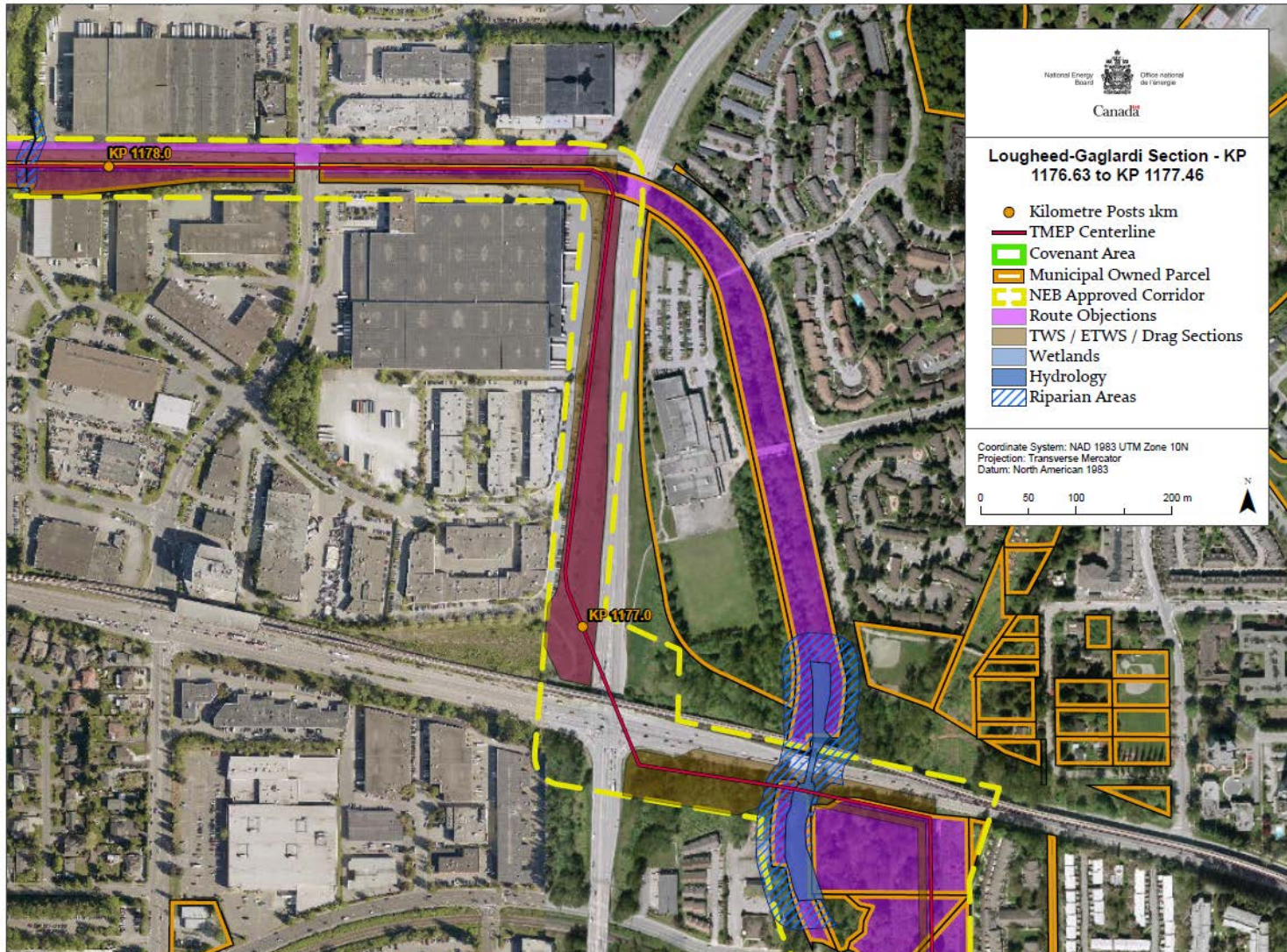
Map produced by the NEB, April 2018. This map has been generated by the NEB for illustrative purposes only. The NEB disclaims all responsibility for any errors, omissions and inaccuracies. Readers wishing to consult the actual maps as they were filed should refer to the official record.

Appendix II – Map of the Cottonwood Park Section



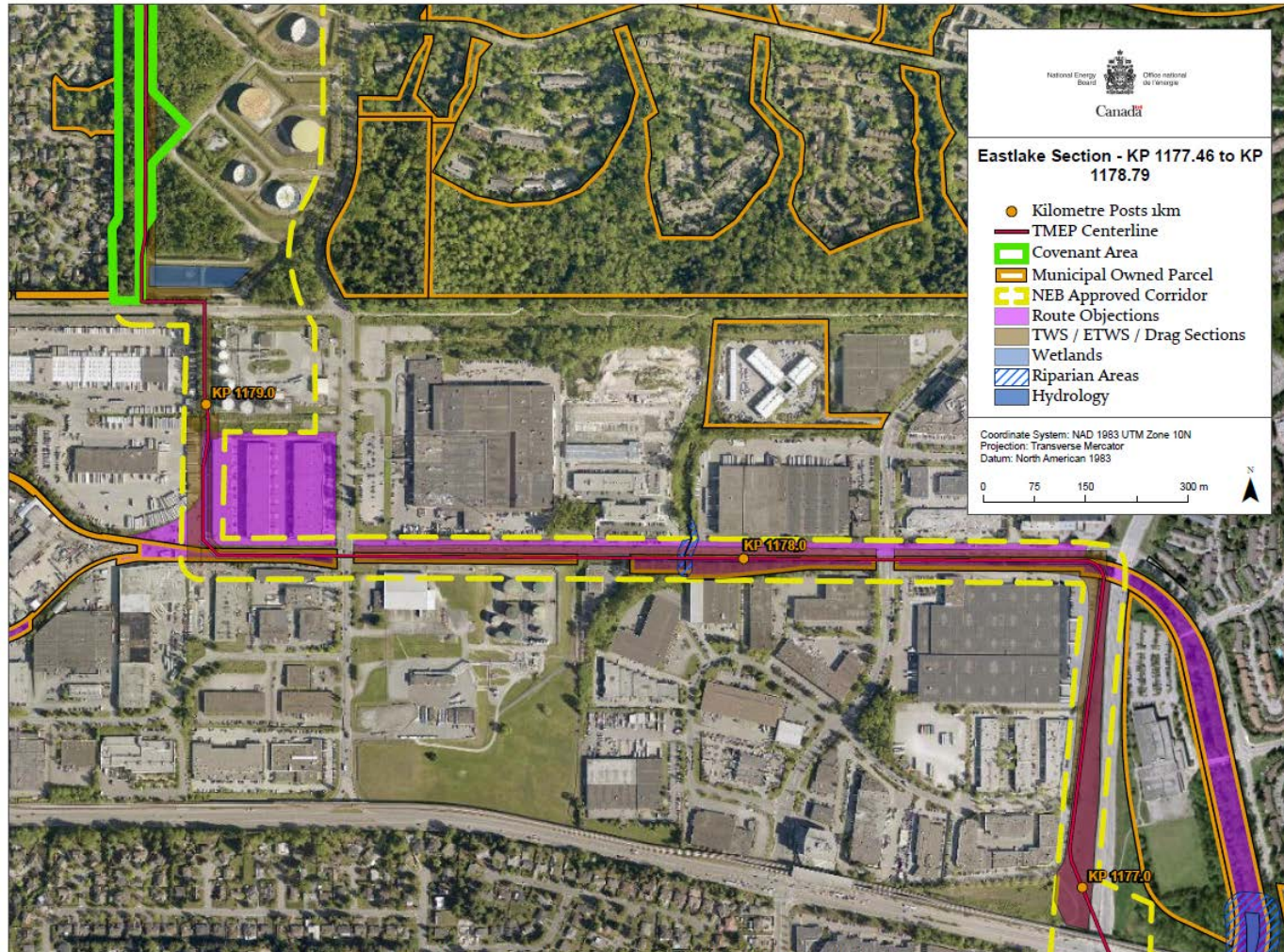
Map produced by the NEB, March 2018. This map has been generated by the NEB for illustrative purposes only. The NEB disclaims all responsibility for any errors, omissions and inaccuracies. Readers wishing to consult the actual maps as they were filed should refer to the official record.

Appendix III – Map of the Lougheed-Gaglardi Section



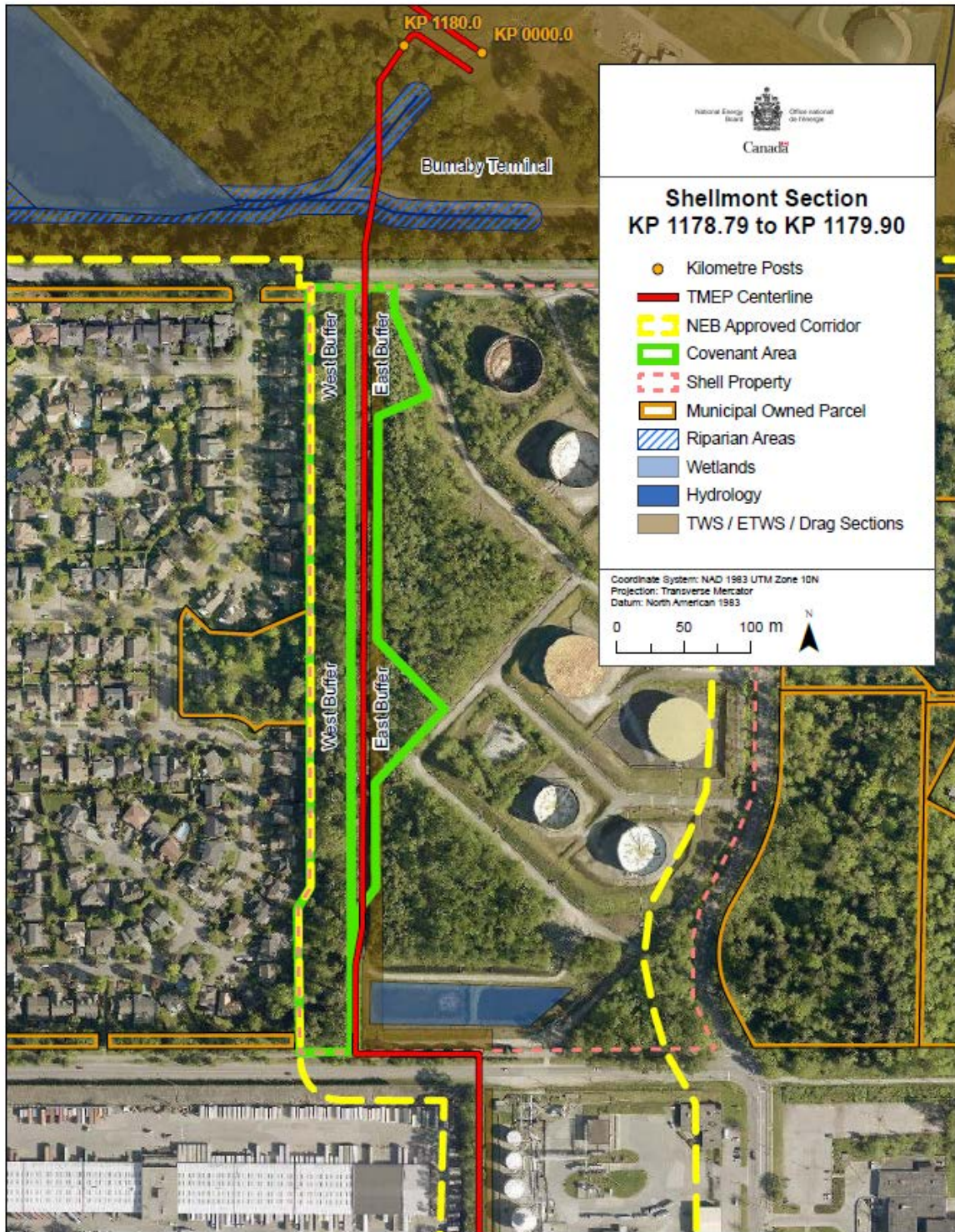
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Appendix IV – Map of the Eastlake Section



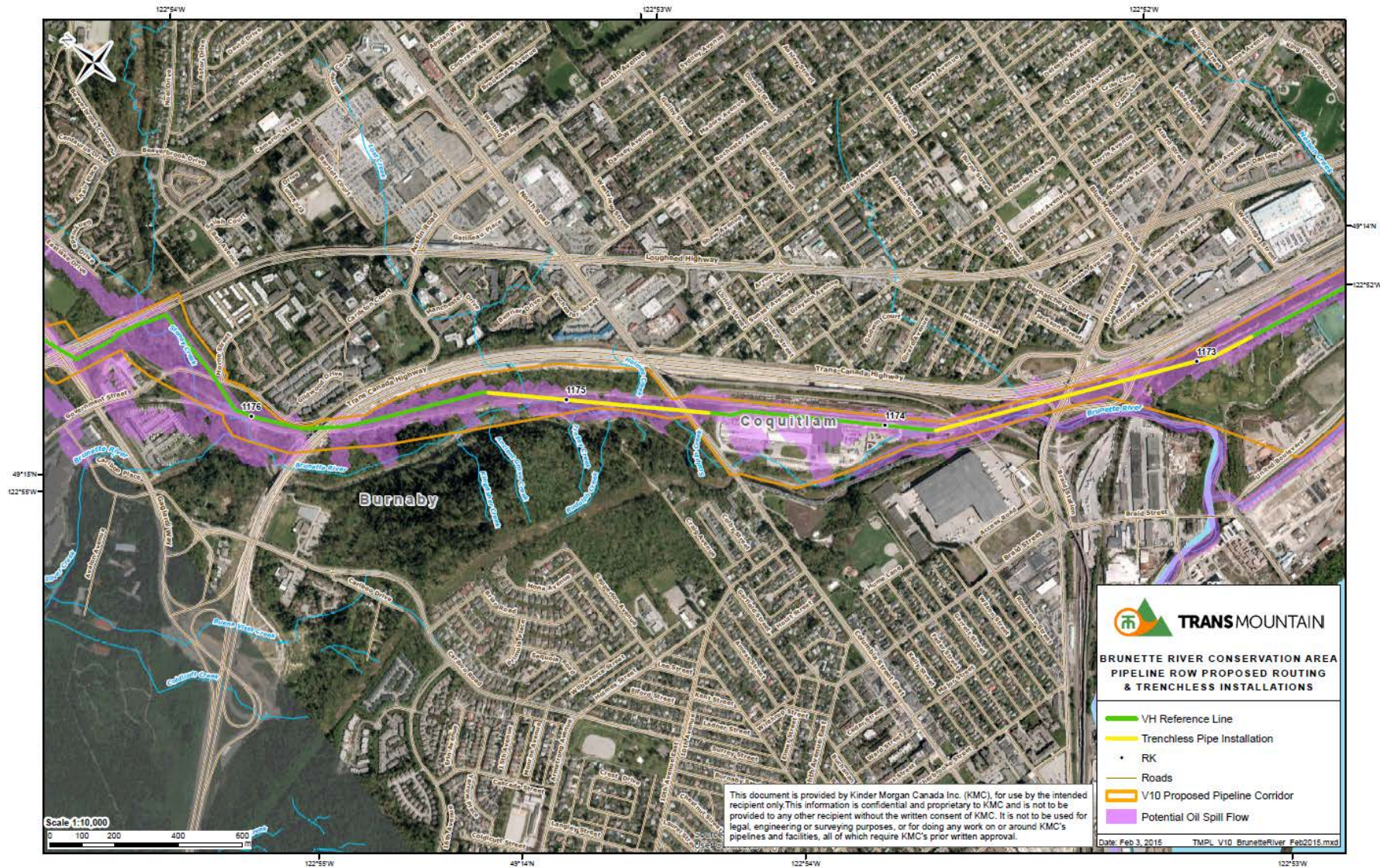
Map produced by the NEB, April 2018. This map has been generated by the NEB for illustrative purposes only. The NEB disclaims all responsibility for any errors, omissions and inaccuracies. Readers wishing to consult the actual maps as they were filed should refer to the official record.

Appendix V – Map of the Shellmont Section



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.

Appendix VI – Trans Mountain’s Map of BRCA Pipeline Right-of-Way Proposed Routing & Trenchless Installations²⁴



²⁴ This map was filed by Trans Mountain in response to IR 2.135 for the Certificate hearing ([B314-5](#))