WESTRIDGE MARINE TERMINAL UPGRADE AND EXPANSION PROJECT APPLICATION TO VANCOUVER FRASER PORT AUTHORITY

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June 2017
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<th>Definition</th>
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<td>AAQ</td>
<td>ambient air quality</td>
</tr>
<tr>
<td>AB</td>
<td>Alberta</td>
</tr>
<tr>
<td>AEMP</td>
<td>Air Emissions Management Plan</td>
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<tr>
<td>ALARP</td>
<td>As Low as Reasonably Possible</td>
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<tr>
<td>API</td>
<td>American Petroleum Institute</td>
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<tr>
<td>AVICC</td>
<td>Association of Vancouver Island and Coastal Communities</td>
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<td>BC</td>
<td>British Columbia</td>
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<tr>
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<td>BC Building Code</td>
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<td>BC Environmental Assessment Office</td>
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<td>CAC</td>
<td>Criteria Air Contaminant</td>
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<td>CCG</td>
<td>Canadian Coast Guard</td>
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<td>Canadian Environmental Assessment</td>
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<td>Canadian Environmental Assessment Act, 2012</td>
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<td>COSBC</td>
<td>Chamber of Shipping for British Columbia</td>
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<td>CPCN</td>
<td>Certificate of Public Necessity and Convenience</td>
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<td>Computational Pipeline Monitoring</td>
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<td>Capital Regional District</td>
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<td>CSA</td>
<td>Canadian Standards Association</td>
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<td>Cowichan Valley Regional District</td>
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<td>DFO</td>
<td>Fisheries and Oceans Canada</td>
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<td>DNV</td>
<td>Det Norske Veritas</td>
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<td>Environmental Assessment</td>
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<td>EPP</td>
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<td>Ecological Risk Assessment</td>
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<td>ESA</td>
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<td>Facilities Application</td>
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<td>FEMP</td>
<td>Fugitive Emissions Management Plan</td>
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<td>FHA</td>
<td>Fraser Health Authority</td>
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<tr>
<td>FlOc</td>
<td>Frequency of Loss of Containment</td>
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<td>FVRD</td>
<td>Fraser Valley Regional District</td>
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<td>GHG</td>
<td>greenhouse gas</td>
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<td>GRPs</td>
<td>Geographic Response Plans</td>
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<td>HDD</td>
<td>horizontal directional drilling</td>
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<tr>
<td>HHRA</td>
<td>human health risk assessment</td>
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<tr>
<td>HMM</td>
<td>Hatch Mott MacDonald</td>
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<tr>
<td>HNS</td>
<td>Hazardous and Noxious Substances</td>
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<tr>
<td>ISLMS</td>
<td>Integrated Safety and Loss Management System</td>
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<tr>
<td>KMC</td>
<td>Kinder Morgan Canada Inc.</td>
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<tr>
<td>LFVAQCC</td>
<td>Lower Fraser Valley Air Quality Coordinating Committee</td>
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<td>LGMA</td>
<td>Local Government Management Association</td>
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<tr>
<td>LMLGA</td>
<td>Lower Mainland Local Government Management Association</td>
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<tr>
<td>LRBW</td>
<td>Least Risk Biological Window</td>
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<td>MIACC</td>
<td>Major Industrial Accidents Council of Canada</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>MLBVs</td>
<td>mainline block valves</td>
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<td>MoE</td>
<td>Ministry of Environment</td>
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<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>National Fire Protection Association</td>
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<td>Nanaimo Regional District</td>
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<td>OPR</td>
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<td>Oil Spill Containment and Recovery</td>
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<td>PCEM</td>
<td>post-construction environmental monitoring</td>
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<td>RDFFG</td>
<td>Regional District of Fraser Fort George</td>
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<td>SBP</td>
<td>Surrey Bend Regional Park</td>
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<td>SCADA</td>
<td>supervisory control and data acquisition</td>
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<td>SEEMP</td>
<td>Socio-Economic Effects Monitoring Plan</td>
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<td>SFPR</td>
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<td>SLRD</td>
<td>Squamish Lilooet Regional District</td>
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<td>TERMPOL</td>
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<td>TIABC</td>
<td>Tourism Industry Association of BC</td>
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<td>TLRU</td>
<td>traditional land and resource use</td>
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<td>TMEP or the Project</td>
<td>Trans Mountain Expansion Project</td>
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<td>TMPL</td>
<td>Trans Mountain pipeline</td>
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<td>TMRU</td>
<td>traditional marine resource use</td>
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<td>TNRD</td>
<td>Thompson Nicola Regional District</td>
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<td>Trans Mountain</td>
<td>Trans Mountain Pipeline ULC</td>
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<td>TRU</td>
<td>Thompson Rivers University</td>
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<td>TWG</td>
<td>Technical Working Group</td>
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<td>VCHA</td>
<td>Vancouver Coastal Health Authority</td>
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<tr>
<td>VFPA</td>
<td>Vancouver Fraser Port Authority or “the Port”</td>
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<tr>
<td>VOC</td>
<td>volatile organic compounds</td>
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<td>WCMRC</td>
<td>Western Canada Marine Response Corporation</td>
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<td>WMT</td>
<td>Westridge Marine Terminal</td>
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NOTE TO READER

Trans Mountain has implemented, and continues to conduct an open, extensive and thorough public consultation process, commonly known and referred to by the Trans Mountain Expansion Project team as stakeholder engagement. Vancouver Fraser Port Authority (VFPA) permit guidelines differentiate between stakeholder consultation and public consultation which has not been the Project team’s approach to date. However, engagement activities outlined in this permit application and appendices will attempt to differentiate activities where feasible to facilitate the permit review.

For the purpose of this application, unless otherwise stated, the feedback reported in Technical Report TR-20 reports on engagement activities and any outstanding issues identified from May 2012 through to January 31, 2017.
1.0 STAKEHOLDER ENGAGEMENT

Trans Mountain Pipeline ULC (Trans Mountain) filed a Facilities Application with the National Energy Board (NEB) proposing to construct and operate TMEP which is regulated under the National Energy Board Act (NEB Act). As a designated project under the Canadian Environmental Assessment Act, 2012 (CEAA 2012) the Project requires a CEAA 2012 environmental assessment for which the NEB is the Responsible Authority.

In establishing the List of Issues for its review of the Trans Mountain Expansion Project (Project; Filing ID A3V6I2), the NEB included the potential environmental and socio-economic effects of marine shipping activities resulting from the Project, including the potential effects of accidents or malfunctions that may occur. In its subsequent Letter and Filing Requirements to Trans Mountain Pipeline ULC -- Related to the Potential Environmental and Socio-Economic Effects of Increased Marine Shipping Activities - Trans Mountain Expansion Project (Filing ID A53984), the NEB provided further direction regarding the marine aspects of the review, including:

- Consultation
- Description of the increased in marine shipping activities
- Geographic extent of the shipping activities
- Environmental and Socio-Economic Assessment
- Navigation Safety
- Mitigation Measures

To address these requirements, Trans Mountain filed, as part of the Application, Volumes 8A (Marine Transportation), 8B (Marine Environmental and Socio-Economic Technical Reports) and 8C (TERMPOL Reports) and this information has since been augmented by Technical Updates and Information Request responses. Each volume contains an NEB Filing Manual Checklist identifying where information may be found in the various volumes of the Application.

The NEB completed its review of the Project and issued a recommendation to the Governor in Council to approve the Project on May 19, 2016 subject to 157 conditions of approval (Filing ID A77045). On November 29, 2016 the Government of Canada announced approval of the Project. On December 1, 2016 the NEB issued the Certificate of Public Convenience and Necessity (CPCN) to Trans Mountain.

On January 11, 2017, the Province of British Columbia issued an environmental assessment certificate to Trans Mountain Pipeline ULC for the BC portion of the Trans Mountain Expansion Project. The Province acknowledge the NEB has the primary responsibility for ensuring the Project is developed, constructed and operated in a manner that is safe and secure, and protects people, property and the environment. The environmental assessment certificate included 37 conditions that are in addition to and designed to supplement the NEB 157 conditions. Conditions of approval can be found in Appendix C.

1.1 Purpose of this Report

On September 11, 2014, the VFPA was signatory to a Project Agreement for TMEP in AB and BC with other federal departments as coordinated by the Federal Government’s Major Project Management Office. The purpose of the agreement was to detail the federal review process with the NEB as the responsible authority for an environmental assessment (EA) pursuant to CEAA 2012 and for a hearing

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1 Project agreement can be found at the following link accessed Nov 25, 2016: https://mpmo.gc.ca/sites/mpmo.gc.ca/files/files/project-projet/pdf/TMX-eng.pdf
process as defined by the NEB Act. VFPA participated in the NEB review process as an Intervenor and as such provided the NEB with expert input and regulatory review of components of the Project.

The NEB released its Report on the Trans Mountain Expansion Project (Filing ID A5A9H1) to the federal Governor in Council on May 19, 2016. In January 2016, the federal government announced it would take an additional four months (Federal Transition Process) to review the Project (i.e., in addition to the planned three months), including conducting additional Crown consultation with Aboriginal groups and communities, and further stakeholder and Aboriginal engagement with communities potentially affected by the Project. The federal government approved the Project on November 29, 2016 and the NEB issued the CPCN on December 1, 2016.

Having received a CPCN from the NEB, Trans Mountain will submit a permit application to VFPA for review and issuance of necessary VFPA permits. This Report is intended to provide additional information to the VFPA to inform its decision-making process.

Section 2.0 of this Report summarizes the key issues raised by the stakeholders and communities through their written argument or other submissions to the NEB. As previous consultation filings in record show, the breadth of stakeholders engaged was broad; however, the engagement with stakeholders and communities considered applicable for the purposes of this permit review were determined in consultation with VFPA and are presented in Table 1.2-1.

### TABLE 1.1-1

<table>
<thead>
<tr>
<th>Consulted Municipalities/Regional Governments</th>
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<td>City of Burnaby*</td>
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<tr>
<td>District of West Vancouver</td>
<td>BC Ministry of Forest, Land and Natural Resource Operations</td>
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This Engagement Report (Report) does not duplicate the information on the public record with the NEB, rather it is intended as an accompaniment to the information already on file. Section 1.2.3 of this Report provides additional information on stakeholders or communities who either chose not to submit written argument submissions to the NEB or were not active in the NEB Regulatory process. Many of the stakeholders or communities identified in Section 1.2.3 have provided input and worked collaboratively with Trans Mountain.

Appendix T of this Report provides a table of hyperlinks to the documents filed by the applicable stakeholders and communities who participated in the NEB hearing process as either an Intervenor or Commenter.

Appendix U of this Report provides a summary of key issues raised through the written argument or other submissions filed with the NEB by the applicable stakeholders and communities. Appendix U is not intended to be an exhaustive examination of all issues raised in the NEB’s process, rather Trans Mountain focused on the issues raised through written arguments as a surrogate for the broader public interest within the scope of the VFPA’s permit review. Appendix U also provides a status update
regarding the resolution of key issues raised and information on how those key issues will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

1.1.1 **NEB Decision – Views on TMEP’s Consultation with Governments**

In Section 4.2 of the NEB’s Report on the Trans Mountain Expansion Project (Filing ID A5A9H1), the Board stated:

*The Board regards engaging the public as an essential and ongoing activity throughout the Project’s entire lifespan. 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.*

*The Board is of the view that Trans Mountain has developed and implemented a broadly based public consultation program, offering numerous venues and opportunities for the public, landowners, governments and other stakeholders to learn about the Project, and to provide their views and concerns to the company.*

*Since a company’s relationship with directly affected stakeholders will continue for several decades throughout the lifecycle of a project, it is critical for all parties to recognize and understand their respective roles and responsibilities for achieving effective dialogue during consultation, including those offered outside of the NEB hearing process. 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 observes with regret that not all municipalities accepted the opportunity to engage with the Trans Mountain effectively. In particular, the City of Burnaby declined a number of opportunities to engage with Trans Mountain. The Board is 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.*

*The Board acknowledges the concerns raised by municipalities regarding ongoing consultation, particularly during the design and construction phase of the Project. Trans Mountain has committed to offer continued engagement opportunities to affected municipalities through the formation of technical working groups, with the stated goal to build trust and good relationships where the company operates. The Board views such working groups as useful opportunities to explore collaborative approaches through the design and construction phases of the Project, and to pursue ongoing dialogue. To facilitate the establishment and development of the technical working groups, the Board would impose Condition 14 requiring Trans Mountain to file with the Board, prior to commencing construction, the terms of reference for the technical working groups, to be developed in collaboration with participating affected municipalities, and facility owners and operators.*

*Although consultation with government authorities was initiated early in the process, the Board expects Trans Mountain to continue to offer opportunities for effective and timely consultation with government stakeholders, as appropriate, through the lifecycle of the Project in order to further identify and adequately address concerns regarding the Project’s potential effects on governments, including municipalities. To facilitate Trans Mountain’s ongoing consultation with government stakeholders, and to apprise the Board and all parties of the outcomes of this ongoing consultation, the Board would impose Condition 49 requiring Trans Mountain to file with the Board, reports of the meetings of the technical working groups. In the Board’s view, this reporting would allow the Board and all parties to understand the outcomes achieved by the technical working groups, and provide for the transparent reporting to the Board of any potential issues regarding the design and construction of the Project. The reporting would also allow the Board and all parties understand how these issues have been addressed, to the extent possible, by Trans Mountain and the members of the technical working groups.*

1.1.2 **NEB Condition and Trans Mountain Commitment Compliance**

On May 19, 2016, the NEB recommended the federal government approve the TMEP, subject to 157 required conditions that apply during various stages of the Project’s life cycle, including before
Trans Mountain Pipeline ULC Stakeholder Engagement Report
Trans Mountain Expansion Project June 2017

construction, during construction and during operation of the pipeline. NEB conditions are designed to reduce possible risks identified during the Application process and ensure the pipeline is planned, built and operated safely. The requirements also ensure Trans Mountain protects the environment and respects the rights of those directly affected by the Project through construction, mitigation and into many years of operations.

The conditions, which would be enforced by the NEB, cover a wide range of topics, including:

- safety and integrity of the pipeline;
- emergency preparedness and response;
- protection of the environment;
- ongoing consultation with those affected, including Aboriginal communities;
- socio-economic matters;
- affirmation of commercial support for the Project prior to construction; and
- financial responsibility.

A complete list of the NEB’s 157 conditions can be found in Appendix 3 of the NEB’s report (see Appendix C). NEB imposed five overarching conditions, the effect of which, makes all commitments, plans or programs included, referenced, or agreed to on the hearing record, regulatory requirements of the NEB.

While commenting on TMEP’s Consultation with Governments, Section 4.2 of the NEB’s Report stated:

As discussed in Chapter 7, the Board would impose a condition requiring Trans Mountain to file with the Board an updated commitment tracking table prior to the start of construction (Condition 6). This update should include all commitments made to landowners and government stakeholders. The Board reminds Trans Mountain that even where commitments may not be specifically included in Trans Mountain’s filings submitted pursuant to Condition 6, Trans Mountain would still be required to implement all commitments made in its Project application, or as otherwise agreed to in the evidence it filed during the hearing, or in its related submissions (Condition 2).

Trans Mountain has committed to continue consulting with and addressing issues raised by affected landowners, both before and after pipeline construction. The Board is of the view that an effective and responsive process for responding to issues that may be raised by affected landowners is an important part of the company’s ongoing engagement with landowners. To that end, the Board would impose Condition 102 requiring Trans Mountain to confirm that it has created, and will maintain, a process/system that tracks Project-related landowner and tenant complaints or concerns and how Trans Mountain has addressed them, up until the Project is abandoned or decommissioned pursuant to the NEB Act. The Board would also impose Condition 99. Some groups were critical of the approach requiring Trans Mountain to maintain and file with the Board, records of its landowner and tenant consultations, and provide confirmation that it will make available to a landowner or tenant, upon request, a copy of the consultation records related to that landowner or tenant. The Board is of the view that these requirements would facilitate an effective and responsive process for responding to issues raised by landowners and tenants in order that potential concerns can be appropriately addressed, to the extent possible.

The Board is of the view that with Trans Mountain’s commitments and the Board’s recommended conditions, Trans Mountain can continue to effectively engage the public, landowners and other stakeholders, and address issues raised throughout the Project’s operational life.

Trans Mountain remains committed to open and transparent dialogue with stakeholders who are potentially impacted by the Project. Interests and/or concerns identified during ongoing engagement with stakeholders will be reviewed and incorporated into Project planning and development as appropriate, prior to construction, and in compliance with the filing of relevant NEB certificate conditions.
1.1.3 BC Environmental Assessment

The Province of BC has issued an Environmental Assessment (EA) certificate for the Project with 37 specific conditions attached. The conditions are based on the NEB's report, the consideration of additional information and Aboriginal consultation to date. The conditions are legally binding and must be completed to ensure Aboriginal interests are accommodated and the Province is satisfied.

Of the 37 Conditions, two conditions relate to engagement and consultation: No. 3 – Consultation and No. 14 – Public Communications and Engagement (see Appendix V). These conditions are in addition to and supplement the 157 NEB conditions, ensuring engagement will continue and that consultation reports will be filed on a regular basis during and after construction.

As stated on page 24 of the BC EAO Assessment Summary Report (Appendix Y):

...EAO required Trans Mountain to submit a Stakeholder Engagement Report which summarized engagement with local and regional governments and municipalities, identified the key issues raised by stakeholders, particularly local and regional governments and municipalities throughout the process, and provided a status update regarding the resolution to these issues.

...Trans Mountain has committed to offer continued engagement opportunities to affected municipalities through the formation of technical working groups to support addressing the concerns raised by municipalities regarding ongoing consultation, particularly during the design and construction phase of the Project. To facilitate the establishment and development of the technical working groups, NEB condition 14 would require Trans Mountain to file with the NEB, prior to commencing construction, the terms of reference for the technical working groups, to be developed in collaboration with participating affected municipalities, and facility owners and operators. NEB condition 13 would require Trans Mountain to file with the NEB for approval, a plan for monitoring potential adverse socioeconomic effects of the Project during construction. NEB condition 131 would require Trans Mountain to file with the NEB, a report describing completed activities and observed outcomes of Trans Mountain’s Marine Public Outreach Program, and any further planned activities for this program. The NEB had included several conditions regarding emergency planning, preparedness and response, as described in Section 7 of this report.

In addition, EAO proposes conditions that would require Trans Mountain to continue to engage until the end of operations, to establish and maintain a project website for sharing information, to provide EAO with reports on its public consultation...

Trans Mountain will continue its approach to transparent, regular engagement and ensure all requirements of the 37 Province of BC Environmental Assessment Conditions are met.

1.2 Stakeholder Engagement Overview

The Trans Mountain Expansion Project (“TMEP” or “the Project”), Trans Mountain Pipeline ULC (Trans Mountain) initiated its stakeholder engagement program as soon as the decision to proceed with the Project was announced in May 2012. Trans Mountain’s stakeholder engagement program has touched all aspects of the pipeline corridor and associated facilities, between Strathcona County, Alberta (AB) and Burnaby, British Columbia (BC). This includes Westridge Marine Terminal, (WMT) as well as the marine shipping corridor along BC’s south coast. Trans Mountain has sought feedback on the following:

- determining the scope of the Environmental and Socio-Economic Assessment (ESA);
- identifying potential mitigation measures to reduce environmental and socio-economic effects;
- identifying potential benefits associated with the Project; and
• routing or facility alternatives where it is not practical to follow the existing Trans Mountain pipeline (TMPL) right-of-way.

**National Energy Board Consultation Filings**

The feedback Trans Mountain received through its engagement and communications activities has been incorporated into the Project and has influenced the design of subsequent phases of engagement and communications. Trans Mountain's complete record of its stakeholder engagement and communications activities through the NEB hearing process can be found in the following documents:

- **Volume 3A** (Filing ID A55987) of the NEB Facilities Application (the Facilities Application), filed with the NEB on December 16, 2013, reported on Trans Mountain’s stakeholder engagement activities for the period of May 2012 through to July 31, 2013. Trans Mountain engaged with stakeholders on all aspects of the Project including scope, routing, issues and stakeholder identification, appropriate engagement and communications methods, ESA, and regulatory timelines in preparation for submitting the Application to the NEB in December 2013.

- **Consultation Update No. 1 and Errata** (Filing ID A59343), filed with the NEB on March 20, 2014, reported Trans Mountain’s ongoing engagement activities for the period of August 1 to December 31, 2013. Consultation Update No. 1 provided the final summary of engagement activities and issues addressed by Trans Mountain leading up to the submission of its Application to the NEB in December 2013, including terminals, reactivation, grasslands, economic benefits, and emergency management.

- **Consultation Update No. 2** (Filing IDs A62087 and A62088), filed with the NEB on August 1, 2014, reported on Trans Mountain’s ongoing engagement activities for the period of January 1 to April 30, 2014. During this time, Trans Mountain continued to engage with stakeholders on routing, proposed reactivation, emergency management, and routing through/adjacent to provincial parks, as well as to respond to other issues as they arose.

- **Consultation Update No. 3** (NEB Filing ID A4H1W2 through A4H1W7), filed with the NEB on February 12, 2015, reported on Trans Mountain’s ongoing engagement activities for the period of May 1 to December 31, 2014. During this time, Trans Mountain continued to engage with stakeholders through the initiation of Technical Working Groups (TWGs), and about employment and training, emergency management, economic benefits, procurement or business opportunities, park use and construction impacts, BC Parks Stage 2 Application, fisheries offsets, reactivation and community capacity building, Project status and updates, as well as respond to other issues as they arose.

- **Consultation Update No. 4** (Filing ID A72224), filed with the NEB on August 20, 2015, reported on Trans Mountain’s ongoing engagement activities for the period of January 1, 2015 to June 30, 2015. During this time, Trans Mountain continued to engage with stakeholders on emergency management, community capacity building, Environmental Protection Plan (EPP), socio-economic effects monitoring, construction impacts, Project status and updates, as well as respond to other issues as they arose.

**Vancouver Fraser Port Authority Consultation Filings**

Further engagement and communications documentation has also been provided to the Vancouver Fraser Port Authority (VFPA) as follows:

- **Marine Consultation Summary No. 1** provided by Trans Mountain to VFPA on January 5, 2015, (which is also appended to Consultation Update No. 3 (National Energy Board [NEB] Filing ID A4H1W5)). This summary reported on Trans Mountain’s ongoing
engagement activities for the period of the Project’s announcement in May 2012 to July 2014.

- Marine Consultation Summary No. 2 provided by Trans Mountain to VFPA on October 3, 2015 (see Appendix A). This updated summary of all marine-related consultation for TMEP includes all consultation on marine matters in the jurisdiction of PMV occurring from August 1, 2014 to June 30, 2015. Note this also includes discussions of relevance to VFPA jurisdiction along the Fraser River.

**BC Environmental Assessment Office Consultation Filings**

- An engagement summary of activities completed from July 1, 2015 through to June 30, 2016 was also filed with the BC Environmental Assessment Office (BCEAO) in September of 2016. The report was posted by BCEAO at the following link: [http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_459_41085.html](http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_459_41085.html)

As with the previous reporting period for the VFPA, this summary does not include the engagement activities or outcomes of Aboriginal engagement, landowner negotiations or the engineering led discussions of Technical Working Groups with individual pipeline community municipalities and regional districts. Aboriginal engagement summary logs are submitted to the VFPA directly by the Trans Mountain Aboriginal Engagement Team.

Trans Mountain is committed to open and transparent dialogue with stakeholders who are potentially impacted by the Project and throughout the life of the Project. Interests and/or concerns identified during ongoing engagement with stakeholders will be reviewed and incorporated into Project planning and development as appropriate, prior to construction and in compliance with the filing of relevant NEB certificate conditions.

**1.2.1 Philosophy**

As identified in Section 1.2.1 in Volume 3A (Filing ID A55987) of the Facilities Application for TMEP, the Project team adopted Kinder Morgan Canada Inc.’s (KMC) Community Relations philosophy, which states:

> At KMC, we believe Aboriginal communities, our neighbours, governments and local communities play an important role in how we conduct our business. Our success depends on earning the trust, respect and cooperation of all community members.

> We are committed to respectful, transparent and collaborative interactions with communities to develop long-term effective relationships. To honour this commitment, we participate in local communities by hosting facility open houses, providing newsletters and Project updates, making safety and public awareness presentations, participating in community events, regulatory processes, and informal meetings.

**1.2.2 Guiding Principles**

As identified in Section 1.2.2 in Volume 3A (Filing ID A55987) of the Facilities Application, the following principles have been and will continue to be used to guide the stakeholder engagement program.

- **Accountability** – Address issues as they emerge. Trans Mountain believes that effective problem solving and mitigation strategies can be identified through engagement with stakeholders.

- **Communication** – Facilitate the involvement of stakeholders; listen and gather input, and work collaboratively to resolve concerns. Use multiple channels for communication to meet the communication needs of diverse stakeholder groups.

- **Local focus** – Seek local input and understanding of the region, its people, the environment, and reflect local values and attitudes in communications with stakeholders.
• **Mutual benefit** – Seek solutions to challenges that result in shared benefits for all interests.

• **Relationship building** – Instill confidence in the public by remaining committed to being a good neighbour with the goal of establishing and maintaining positive, long-term relationships with stakeholders.

• **Respect** – Respect individual values, recognize the legitimacy of concerns, and value the stakeholder input.

• **Responsiveness** – Utilize input and, where feasible, provide timely feedback to stakeholders on how their input has affected plans and decisions.

• **Shared process** – Design the TMEP Engagement Program based on public input, taking into consideration various stakeholder group interests, knowledge levels, time, and preferred method of engagement.

• **Sustainability** – Report on a triple bottom line of social, environmental and economic concerns raised, and identify how these concerns might be addressed.

• **Timeliness** – Initiate engagement processes as early as possible to provide adequate time for stakeholders to assess information and provide input.

• **Transparency** – Commitments made to stakeholders will be documented and carried out. When Trans Mountain is unable to act on input, an explanation will be provided.

### 1.2.3 Stakeholder Identification

Prior to launching a broad stakeholder engagement program, Trans Mountain consulted with local governments and community leaders to seek input on its program. These early conversations provided Trans Mountain with direction on areas of greatest interest to local communities, appropriate means of engagement for different communities and the identification of local stakeholders who should be engaged in the process.

In addition, through an evaluation of the proposed pipeline and marine corridors, Trans Mountain identified stakeholder groups that may have an interest in the Project. This information was originally provided in Table 1.3.1 in Volume 3A (Filing ID A55987) of the Facilities Application and is updated below in Table 1.1-1.

### TABLE 1.2-1

**IDENTIFIED STAKEHOLDER GROUPS FOR PIPELINE AND MARINE CORRIDORS**

<table>
<thead>
<tr>
<th>Stakeholder Type</th>
<th>Stakeholder Type Sub-categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Authorities</td>
<td>• Government of Canada (federal agencies)&lt;br&gt;• Government of Alberta&lt;br&gt;• Government of BC&lt;br&gt;• municipal governments&lt;br&gt;• regional governments&lt;br&gt;• transit authority</td>
</tr>
<tr>
<td>Environmental Non-governmental Organizations (ENGOs)</td>
<td>• local ENGOs&lt;br&gt;• regional ENGOs&lt;br&gt;• national ENGOs</td>
</tr>
</tbody>
</table>
To ensure communications and engagement opportunities met the needs and interests of local communities, engagement activities were divided into pipeline corridor communities (those potentially affected directly by the pipeline and associated facilities) and marine corridor communities (those potentially affected by the incremental increase in Project-related marine vessel traffic). This information was originally provided in Table 1.3.2 in Volume 3A of the Facilities Application, which identified the pipeline and marine corridor communities falling within Trans Mountain’s five regions - AB, BC Interior, Lower Mainland/ Fraser Valley, Mainland Coastal and Island Coastal. Table 1.1-2 of this Engagement Report (Report) is an updated listing of pipeline and marine corridor communities within the Province of BC associated with the Project.

### TABLE 1.2-2

**REGIONAL ALLOCATION OF PIPELINE AND MARINE CORRIDOR COMMUNITIES**

<table>
<thead>
<tr>
<th>BC Interior</th>
<th>Lower Mainland/ Fraser Valley</th>
<th>Mainland Coastal</th>
<th>Island Coastal</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Kamloops</td>
<td>City of Abbotsford</td>
<td>Bowen Island Municipality</td>
<td>Alberni – Clayoquot Regional District</td>
</tr>
<tr>
<td>City of Merritt</td>
<td>City of Burnaby*</td>
<td>City of Burnaby*</td>
<td>Capital Regional District (CRD)</td>
</tr>
<tr>
<td>Community of Avola</td>
<td>City of Chilliwack</td>
<td>City of North Vancouver (CNV)</td>
<td>City of Nanaimo</td>
</tr>
<tr>
<td>Community of Blue River</td>
<td>City of Coquitlam</td>
<td>City of Port Moody</td>
<td>Corporation of the City of Duncan</td>
</tr>
<tr>
<td>Community of Little Fort</td>
<td>City of New Westminster</td>
<td>City of Richmond</td>
<td>Corporation of the City of Victoria</td>
</tr>
<tr>
<td>Community of Vavenby</td>
<td>City of Port Coquitlam</td>
<td>City of Vancouver</td>
<td>Corporation of the District of Central Saanich</td>
</tr>
<tr>
<td>District of Barriere</td>
<td>City of Surrey</td>
<td>City of White Rock</td>
<td>Corporation of the District of Oak Bay</td>
</tr>
<tr>
<td>District of Clearwater</td>
<td>District of Hope</td>
<td>Corporation of Delta</td>
<td>Corporation of the District of Saanich</td>
</tr>
<tr>
<td>Fraser Fort George Regional District</td>
<td>Fraser Valley Regional District (FVRD)</td>
<td>District of North Vancouver</td>
<td>Corporation of the Township of Esquimalt</td>
</tr>
<tr>
<td>Thompson-Nicola Regional District</td>
<td>Metro Vancouver Regional District*</td>
<td>District of Squamish</td>
<td>Cowichan Valley Regional District (CVRD)</td>
</tr>
<tr>
<td>Village of Valemount</td>
<td>Township of Langley</td>
<td>Metro Vancouver Regional District**</td>
<td>District of Metchosin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Squamish Lillooet Regional District (SLRD)</td>
<td>District of North Saanich</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University Endowment Lands/Metro Vancouver Electoral Area &quot;A&quot;</td>
<td>District of Sooke</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Village of Anmore</td>
<td>Islands Trust Areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Village of Belcarra</td>
<td>Nanaimo Regional District (N RD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Village of Lions Bay</td>
<td>Sunshine Coast Regional District</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Town of Sidney</td>
</tr>
</tbody>
</table>
Trans Mountain had almost 40,000 points of contact with stakeholder groups, government bodies and industry organizations to obtain input on the proposed Project. Stakeholders have participated in and provided feedback to Trans Mountain through a variety of opportunities including; however, not limited to, one-on-one meetings, online forums/surveys, open houses, neighbourhood information sessions, Emergency Management Stakeholder Workshops (EMSW), EPP Workshops, Socio-Economic Effects Monitoring Plan (SEEMP) meetings, TWGs and ongoing community conversations.

Engagement with pipeline communities have broadly discussed the greater terrestrial (pipeline and facility) Project impacts, and in the coastal communities such as those found within Burrard Inlet, engagement efforts have focused on maritime matters related to the incremental increase in tanker traffic and the expansion of Westridge Marine Terminal. A complete list of stakeholder and public engagement events regarding Westridge and marine transportation issues can be found in Appendix B.

Stakeholders have had the opportunity to provide feedback on the pipeline route, associated facilities and marine studies, as well as important issues related to the Environmental Socio-Economic Assessment (ESA). Trans Mountain has gathered informed input, identified issues or concerns and, where appropriate, incorporated the results of its engagement, including any recommendations from those engaged, into the plan.

1.2.4 Engagement Activities Overview – July 1, 2015 to December 1, 2016

As reported in Volume 3A of the Facilities Application, Phase 5 of the stakeholder engagement program is inclusive of engagement activities occurring from January 2014 through to in-service. Trans Mountain’s ongoing activities during this phase of the stakeholder engagement program have and will continue to include:

- Sharing results of any new studies or work being completed on the Project;
- Communicating any changes and or updates to Project plans;
- Sharing information with stakeholders on the regulatory process; and
- Engaging on potential construction effects and mitigation measures.

As noted in Section 1.1.1 of this Report, Trans Mountain’s complete record of its stakeholder engagement activities can be found in other reports filed with the VFPA as well as filings for the NEB and the BCEAO regulatory review processes. Those documents should be referenced as an accompaniment with this section.

This section of the Report provides an overview of engagement activities completed and any outstanding issues identified during the period of July 1, 2015 to January 31, 2017 with specific regard to Westridge Marine Terminal and the increase in associated marine vessel traffic with the Project. It should not to be considered a comprehensive Consultation Update, as has been provided to the NEB and referenced in Section 1.1 of this Report.

During this timeframe, Trans Mountain continued to provide timely information, as well as respond to and gather stakeholder feedback through in person interactions, its website, phone and social media channels. Engagement activities specific to topic areas applicable to the VFPA development permit are profiled in Sections 1.1.4.1 through 1.1.4.4 below.

1.2.4.1 Westridge Marine Terminal Construction and Operations

SEEMP

To inform requirements for NEB Condition No. 13 (a list of NEB Conditions available in Appendix C), Trans Mountain hosted three Socio-Economic Effect Monitoring Plan (SEEMP) workshops in the Lower Mainland Fraser Valley region between this Report’s timeframe of July 1, 2015 and January 31, 2017. Two in person workshops were held in 2015 and a webinar was held on January 2017. The regional Health Authorities participated in both the Coquitlam July 15, 2015 workshop and January 16, 2017 webinar. Stakeholders with interests related to Westridge Marine and Burnaby Terminals were invited to
the Coquitlam workshop and the January webinar. The webinar held on January 16, 2017 provided a review of SEEMP content including indicators, how feedback received on indicators has been incorporated into the SEEMP and a rationale for non-inclusion of additional proposed indicators. The webinar is available in Appendix W.

Legacy Benefits

Trans Mountain continued to meet with local governments and other local stakeholder groups to discuss potential legacy benefits to local communities that could result from the Project. The Community Benefits program is discussed in Section 1.1.6.

City of Burnaby Preliminary Plan Application

At Trans Mountain’s request, in August 2015, Trans Mountain met with City of Burnaby planning staff to obtain feedback on the City’s Preliminary Plan Application process and documentation. The City provided information about the application drawing requirements, outlined the review process, timelines and fees.

Engagement and Communications Activities

In December 2015, Trans Mountain issued a letter to Burrard Inlet municipal and regional governments, locally elected provincial and federal government representatives, neighbours to Burnaby and Westridge Marine Terminals, as well as others who may be impacted by the expansion plans for the terminals in Burnaby. The letter provided an update on the regulatory review schedule, changes made to the Project as a result of input received to date and next steps for the Project. The letter welcomed those interested to contact the Project should they wish further information (see Appendix D for copies of the letters distributed to elected officials of applicable communities for this Report).

In June 2016, following a positive recommendation from the NEB, Trans Mountain invited municipal and regional governments, including those with interests in Westridge Marine Terminal to meet to discuss outstanding concerns.

In June 2016, in response to frequently asked questions and topics of concern identified in Burnaby and North Shore communities, Trans Mountain initiated a series of bi-weekly advertorials placed in the North Shore News and Burnaby Now newspapers. Copies of the advertorials and their production schedule are available in Appendix E.

In July 2016, Trans Mountain representatives met with senior staff at the District of North Vancouver. The District was provided with an update on the Project and an overview of the expansion of Westridge Marine Terminal. Staff expressed interest in construction details and methods of communications with District residents. Trans Mountain committed to continue sharing updates and information as it comes available related to construction. The Project will also engage directly with communications staff at the District once Trans Mountain’s complaints process and communication plan are available for their review and comment (Q2 2017).

In September 2016, Trans Mountain issued invitations to stakeholders with specific interests and subject expertise in environmental topics related to the expansion to provide input to environmental plans related to the Project. The plans were posted online at different times between Q3 2016 and Q1 2017 and opportunities to ask questions or provide feedback were made available. A complete list of the environmental plans posted is available in Appendix F.

As described in Appendix B Trans Mountain participated in trade shows and community events to augment community and resident readiness for potential employment and procurement opportunities related to the Project, to increase TMEP visibility and to respond to questions or concerns about the Project.

Technical Working Groups

Trans Mountain continued to offer Technical Working Groups (TWGs) with local and regional governments along the pipeline corridor. These groups provide an opportunity for Trans Mountain’s engineering, routing and construction planning and execution teams to work directly with the relevant
local and regional governments to refine Project plans and to address interests and concerns identified in the regulatory process or as they arise. Other technical experts are brought in as required.

Related to the Westridge Marine Terminal, Trans Mountain originally requested Metro Vancouver Regional District and the City of Burnaby form TWGs with Trans Mountain in Q1 2015. The City of Burnaby declined to participate. Based on the NEB recommendation in May 2016, these groups will continue as a requirement of NEB Condition No. 14 TWG – Terms of Reference and No. 49 TWG reports (see Appendix C). In Q3 2016, Trans Mountain requested regional and municipal governments in pipeline communities re-form TWGs, with a revised draft Terms of Reference (Appendix G shows an example of the TWG Terms of Reference information provided to municipalities). A meeting was held with the City of Burnaby on December 15, 2016 to review the request and determine how the City would like to be engaged going forward. A TWG has been agreed to by Metro Vancouver; the first meeting is scheduled for February 2017.

**Online Engagement**

In June 2016, Trans Mountain launched a series of online presentations to summarize current information related to the design and construction plans for the Burnaby and Westridge Marine Terminals, as well as the tunnel through Burnaby Mountain. The videos also provided stakeholders a digital forum to learn about Project updates and future engagement opportunities, to ask questions and to provide feedback. The online presentations were promoted through postcard delivery and posters to approximately 3,400 residents living near the terminals in Burnaby, to North Vancouver and to Belcarra. Other means of promoting the videos included an email to more than 130 Aboriginal groups and stakeholders, including local governments; a Trans Mountain blog post; and tweets to more than 3,100 direct followers. Advertorials in local newspapers on the North Shore (June 2016, circulation 62,000) and Burnaby (August 2016, circulation 47,000) also invited feedback to the online presentations. Through Trans Mountain’s notification dissemination, the Mayor of Belcarra posted the information on his Mayor’s page at [http://www.belcarra.ca/reports/vob-report-jun2016.htm](http://www.belcarra.ca/reports/vob-report-jun2016.htm).

Since June of 2016, updates related to Westridge Marine Terminal have been made to the Project’s website; for example, as a result of engagement activities in Q4 2016 and Q1 2017 the following pages in particular have been updated:

- **https://www.transmountain.com/reporting-back**
  As of February 6, 2017:
  - Launched Dec 20
  - Sessions: 748
  - Unique Visitors: 333

- **https://www.transmountain.com/burnaby**
  As of February 6, 2017:
  - Launched: March 15, 2015
  - Sessions: 51
  - Unique Visitors: 13

- **https://www.transmountain.com/terminal-engagement**
  As of February 6, 2017:
  - Launched: June 11, 2016
  - Sessions: 138
  - Unique Visitors: 54

**Information Tours**

Trans Mountain hosted several tours and events at its Burnaby and/or Westridge Marine Terminals providing various groups of stakeholders an opportunity to visit the facilities and ask questions about the current operations and the Project, including fire safety and emergency response equipment. On May 26, 2016, Trans Mountain participated in the Canadian Chamber of Commerce’s Resource Day of Action by
hosting a tour for Chamber members and affiliates at its Burnaby Terminal. The tour also highlighted information about WMT.

Workshops

On November 24, 2016 Trans Mountain hosted a stakeholder workshop to share information related to Westridge Marine and Burnaby Terminals about current detailed engineering design and construction plans. The meetings were independently facilitated over four to five hours each, with presentations to stakeholders by the subject matter experts in construction, environment and marine development. Breakout sessions and group discussions provided an opportunity to exchange information regarding construction plans and potential impacts, to discuss with stakeholders proposed mitigation measures, and seek input on environmental plans and a construction communication plan. All participants were provided a discussion guide and were encouraged throughout the workshops to provide their feedback verbally and/or by submitting a feedback form.

More than 100 stakeholders were invited by email to the two events followed by an email reminder as well as a follow up to those who signed up to attend. The WMT workshop event was attended by 16 stakeholders and five stakeholders attended the portion relating to Burnaby Terminal. All information presented at the workshop as well as a list of invited guests and attendees is available in Appendix H. The information presented at the workshop is available at https://www.transmountain.com/reporting-back.

Key feedback received includes:

- significant interest in monitoring birds for impacts from construction noise and air quality particularly seaward of WMT and at Maplewood Flats in North Vancouver, BC;
- interest in more information about lighting management and impact / mitigation on marine life and birds;
- consider means of discouraging colonization of dock structures with marine invasive species;
- convene meeting with Lower Fraser Valley Air Quality Coordinating Committee (LFVAQCC) early in Q1 2017, to review key air quality topics;
- suggestion to place an air monitoring station at Maplewood Flats, suggestion to review potential location for air monitoring station with LFVAQCC;
- consider integrating habitat enhancements at the combi-wall structure against the foreshore at the expanded WMT;
- consider soft shore (vs. rock reef) habitat offsets (based on pre-harbour development conditions);
- interest in habitat offset ratio (consider undertaking more than requirement);
- suggestion to do baseline tissue sampling of marine life;
- interest expressed in shore power access for tankers;
- consider innovation and new approaches for weed management;
- interest in noise management monitoring and response to complaints, innovation in noise control methods; and
- interest in community liaison role definition; hours of work; how Trans Mountain will work with local governments to share information.

Necessary follow up on these topics will occur in Q1/Q2 2017. In particular, a meeting with LFVAQCC is planned for February 2017 to review topics of mutual interest including the Air Emissions and Fugitive Emissions Management Plans for both Westridge Marine and Burnaby Terminals.

Public Information Session

A Public Information Session was held on January 4, 2017 for Burnaby stakeholders. The information session was a drop-in format between 6 and 8 pm featuring 25 storyboards (see Appendix X), handouts and two mapping/routing stations with Google Earth pipeline maps projected on large screens. TMEP subject matter experts from various disciplines, and the contractor, were present to answer questions/concerns from the public. All the material disseminated at the session has been posted to the Project’s website – www.transmountain.com/burnaby.

The objectives of the information session were to: provide an opportunity for potentially impacted neighbours and stakeholders to learn more about engineering design and construction planning;
introduce the contractor developing the construction execution plans; and, gather feedback on stakeholder preferences for construction communication methods and impact mitigation. Each attendee was offered a Discussion Guide of information handouts (see Appendix X); similar to what was provided for the November 24, 2016 workshop.

The session was promoted with local newspaper advertisements in the Burnaby Now and North Shore News (December 21, 28 and 30, 2016), a promotional card was delivered to Westridge and Burnaby Terminal neighbours (December 19-21, 2016) and emails were issued to over 200 key stakeholders between December 19 and 21, 2016, with reminder emails sent on January 2, 2017. Over 100 people attended the event (some chose not to sign in). Many attendees took the opportunity to share their views on the Project, ask questions and have conversations with the TMEP technical experts. While many questions and concerns were raised and answered at the session, no new issues or concerns were identified which have not been previously addressed or discussed over the course of the Project as described in previously filed consultation summaries.

Key themes discussed with stakeholders at the event include:

- Safety: pipeline, tanker traffic, marine safety, fire safety at the Burnaby terminal and WMT
- Emergency Management: evacuation plans, pipeline and tunnel seismicity, and fire safety
- Construction: timeline, traffic disruption, and noise concerns
- Environment: impacts on environment and mitigation measures; impacts on marine life
- Communications and notifications to neighbours
- Concerns regarding views becoming obstructed at Westridge

Additional feedback was received via feedback forms and posters which included requests for weekly construction updates to neighbours, more information about emergency response and request for evacuation plans. Stakeholders identified email, social media, website, mail drops and newspaper ads as preferred methods of notification going forward.

**Marine Fisheries Offsets**

To further explore feedback on the proposal of marine fisheries offsets for WMT, the Project consulted with the Vancouver Fraser Port Authority as well as the Vancouver Aquarium. Overall considerations for marine safety and the long term colonization of the reef were key topics of interest. Vancouver Aquarium did not state their level of comfort or approval of the preliminary configuration specifically; however, one attendee at the meeting did suggest that generally the Vancouver Aquarium was keen to see habitat enhancements that would increase fish abundance. The Vancouver Aquarium provided guidance relevant to the design of the rock-reef complex, which was developed based on longstanding research and monitoring work by Vancouver Aquarium and their Coastal Ocean Research Institute. Key feedback includes advice regarding the type and size of rock to be used, the construction method as well as suggested interstitial spacing for colonization by adult rockfish.

**Presentations**

On January 19, 2017 the Project made a presentation to the Vancouver Fraser Port Authority's North Shore Waterfront Liaison Committee. The presentation provided an overview of the project, specifically construction of WMT expansion. Attendees asked questions about spill response, the availability of shore power and the breadth of NEB's 157 Conditions for the Project.

**Alternative Locations: Westridge Marine Terminal**

The investigation of alternatives to Trans Mountain’s existing WMT has been a topic of interest since the Project was announced in 2012. In particular, on occasion stakeholders have suggested suggestion Trans Mountain should reconsider Delta as an alternative proposed location for its existing WMT. Trans Mountain completed a thorough investigation of alternative marine terminal locations prior to submitting its Facilities Application to the NEB. Based on the results of the investigation, Trans Mountain confirmed its existing WMT in Burnaby, BC is the safest and best location for its expanded terminal facilities. The NEB requested more information about Trans Mountain’s consideration of alternative Terminal Locations in NEB IR 2.044a (Filing IDs A3Z4T9 and A3Z4V1). The following is a summary of outreach undertaken...
regarding alternative marine terminal locations (compilation of all materials provided to media and stakeholders below is available in Appendix I).

- October 2015, in response to articles in local media outlets, Trans Mountain responded with a clarification in the Delta Optimist, to the Corporation of Delta Mayor and Council, and to local MLA Vicki Huntington. The response indicated Trans Mountain was not considering a terminal location in Delta as part of its expansion Project.
- February 2016, Trans Mountain issued a clarification in the local paper and a clarification to Delta Mayor and Council
- Spring 2016, Trans Mountain reached out to local MLA Scott Hamilton and local MP Carla Qualtrough to offer briefings on the Project and the alternative terminal location study and outcome. Both briefings occurred during summer 2016.
- April 2016, Trans Mountain met with MP Terry Beech to provide a Project briefing. In this meeting, at MP Beech’s request, Trans Mountain explained the alternative locations study. Further, at his request, in November 2016, Trans Mountain provided a package of information to MP Beech regarding the alternative terminal locations study.
- In addition responses have been provided in one-on-one meetings, presentations, media interviews and through the Project's communications channels including the website, blog and social media.

1.2.4.2 Emergency Management

In November of 2015, Trans Mountain met with the Tourism Industry Association of BC (TIABC) and the Wilderness Tourism Association (WTABC) to review their concerns highlighted in their letter of comment (Filing ID A4KSV3). Concerns included oil spills, emergency response capacity, the marine terminal location, risk of more vessels transiting the Second Narrows and how to prepare the industry for recovery from crisis situations. The former president of WTABC was present at this meeting, in his role as a spokesperson for the Concerned Professional Engineers, and also repeated some of the same concerns about terminal location as well as the risks of increase vessel transit through the Second Narrows Movement Restricted Area (MRA). A copy of Trans Mountain’s response to the WTABC letter of comment is available in Appendix J.

In response to stakeholder requests, Trans Mountain continued to host Emergency Management Stakeholder Workshops (EMSWs) to explore a local sequence of events and local resources requirements in the event of a pipeline incident in a community. On June 15, 2016, Trans Mountain hosted an EMSW for WMT in Burnaby; with participation from north shore municipalities as well as the City of Vancouver (complete invitation list and the presentation is available in Appendix K). Trans Mountain continues with its Emergency Management engagement, meeting with Aboriginal responders one-on-one to discuss outstanding concerns.

Trans Mountain also conducted meetings with BC school district superintendents, emergency management staff and principals, to discuss and review draft Emergency Response Guidelines for Schools during a spill emergency. A copy of a letter sent to in the Burnaby School District is available in Appendix L. These guidelines are part of the work Trans Mountain is conducting to enhance the emergency response program and will be made available for schools to add to their existing Emergency Management Plans.

In November 2015 and 2016 Trans Mountain also hosted a booth for the second and third years in a row at the annual Emergency Preparedness and Business Continuity Conference held in Vancouver, BC to help explain the Kinder Morgan Canada’s (KMC) approach to emergency management and how communities will be engaged throughout the enhancement of the existing plans to meet the needs of the proposed expansion.

To meet NEB regulatory requirements, of the existing Trans Mountain system (TMPL), which stipulates a full-scale emergency exercise must be conducted every three years, Trans Mountain’s held an exercise for a full-scale credible worst-case oil spill at WMT in October 2015. Over 200 individuals participated in the exercise, from KMC, Western Canada Marine Response Corporation (WCMRC), local, provincial and federal official, local Aboriginal groups, other first responders and key public safety and wildlife management agencies. Combined with the exercise, Trans Mountain facilitated a large-scale observer
program to increase stakeholder awareness of the Incident Command System, and provide behind the scenes access to the exercise, including guided tours and subject matter experts to answer questions throughout the day. Participant lists, information materials and notices to stakeholders are available in Appendix M.

Trans Mountain met with public health officials of the Fraser Health Authority (FHA) and the Vancouver Coastal Health Authority (VCHA) on September 30, 2015 to discuss concerns outlined in a letter submitted by local governments during NEB hearing process (part of Filing ID A4G5KS). On October 29, 2015 representatives from the Health Authorities (HAs) participated in the Westridge Emergency Response exercise. On October 30, 2015, VCHA and FHA sent Trans Mountain a letter outlining their concerns with the Project (Appendix N). The letter focused on the potential for human health impacts arising from oil spills affecting marine and fresh water. Trans Mountain responded to VCHA’s concerns in a letter and briefing package address key interests dated December 16, 2015 (Appendix O). A second briefing package addressing additional health topics of interest is under development for distribution to all impacted BC and Alberta HAs in Q1 2017. This package will include an executive summary and related references filed with the NEB to assist HAs in understanding how each concern is being addressed by the Project.

1.2.4.3 Marine Safety

Trans Mountain requested a voluntary Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL). A TERMPOL Review Committee (TRC) chaired by Transport Canada includes representatives of other federal departments and authorities with responsibilities related to safe marine transportation. The TRC reviewed submissions regarding the safety and risks associated with tanker movements to, from and around WMT resulting from the Project. The TRC released its findings in a report submitted to the NEB on December 11, 2014 which can be found on the Project and NEB respective websites (Filing ID, A4F8Z4). Trans Mountain has since featured many aspects of the TERMPOL Review Committee findings on the Project blog (see samples in Appendix P) as well as engaged with marine stakeholders on some of the follow up actions resulting from the TERMPOL Review Committee report recommendations.

In 2016, Trans Mountain met twice with ships’ agents with responsibility for vessels calling at WMT. Issues reviewed included terminal expansion update, terminal security upgrades and updated enhancements to the vessel acceptance criteria.

Trans Mountain engaged with commercial fishery representatives in Burrard Inlet to review marine aspects of the Project and discuss any of their potential concerns. A presentation was made to Fish Safe Committee on September 17, 2015 and Trans Mountain met with senior managers of the Canadian Fishing Company (CANFISCO) and the Area B (Salmon) Harvest committee (Seiners) on January 25, 2016. Fishermen commented on safety of their operations in proximity to deep draft vessels, voluntary AIS tracking of small vessel craft, and restrictions they face operating in shipping lanes, particularly in the Strait of Juan de Fuca. Some expressed interest in a WCMRC Vessel of Opportunity (VOO) program and were open to re-engage since their participation in the Fisherman Oil Spill Emergency Team (FOSET). They were directed to WCMRC in follow up. A copy of the presentation notes for two of these meetings is available in Appendix Q.

In December of 2015 Trans Mountain reached out to terminal operators east of the Second Narrows in Burrard Inlet to offer an update on the Project and discuss any of their concerns (outreach materials and contact list are available in Appendix R). There was very low response to the offer compared to outreach efforts in 2013 and 2014 with this audience. A meeting was held with Island Tug and Barge on February 12, 2016 where a Project overview was provided and the available transit windows for shipping traffic through the Movement Restricted Area of Second Narrows was discussed along with portions of the TERMPOL filing (see Attachment 1 to Response to Port of Vancouver IR No. 1.2.1, filing ID A3X6V5).

Trans Mountain engaged with marine waterway regulators to review different iterations of boating safety material produced as part of meeting NEB Condition No. 131 (Marine Public Outreach Program, see Appendix S for a copy of the final poster. Regulators engaged through this process included Transport Canada, the Pacific Pilotage Authority, BC Coast Pilots, Canada Coast Guard, and the Port of Vancouver.
On a regular basis Trans Mountain participates in the Chamber of Shipping of British Columbia (COSBC) committees, Navigation and Pilotage Committee and Owners’ Committee. As a result Committee members are provided updates on current Westridge Marine Terminal matters as well as Information about TMEP.

1.2.5 Ongoing Engagement

Trans Mountain’s engagement is ongoing. Engagement and communications activities will continue as the Project proceeds through the approval process and the construction and in-service phases of the Project.

Engagement and communications activities will continue through a number of initiatives, including; however, not limited to, information sessions/open houses, workshops, one-on-one meetings/interactions, presentations, website, online feedback forms, printed materials, and digital media including social media. Trans Mountain will continue to share with stakeholders the results of new studies or work being completed, communicate any changes or updates to Project plans, share information with stakeholders on, including; however, not limited to, the regulatory process, employment and procurement opportunities, workforce hosting, Project information and engage on, including; however, not limited to, construction effects, mitigation measures, offsets, and potential community benefits. Activities planned for 2017 include:

- **Route Optimization (Q3 2016 to Q2 2017; ongoing through route hearings)** – Follow-up meetings will continue with local governments, neighbourhoods and stakeholder groups as needed regarding routing refinements such as pipe location in the proposed corridor, utility crossings, watercourse crossings, etc.

- **Technical Working Groups (TWGs ongoing through planning and construction as per NEB Conditions)** - As the Project transitions from detailed engineering to construction planning and execution, TWGs will continue to involve local governments and other key stakeholders. An updated draft Terms of Reference will continue the discussion focused on the resolution of outstanding concerns. These groups will continue as a requirement of NEB Condition No. 14 TWG – Terms of Reference and No. 49 TWG reports (See Appendix C).

- **Consultation on Environmental Management Plans (Q3 2016 to Q4 2017)** – Trans Mountain will be seeking input from appropriate government authorities, Aboriginal groups, landowner/tenants, subject experts and the public to help refine its plans and meet the conditions set out by the NEB in the following areas:
  - **Environmental Protection Plan** - overall plans for mitigating and addressing impacts of the Project.
  - **Wildlife** - detailed measures to protect specific species of wildlife along the pipeline corridor.
  - **Watercourses, water ecosystems and marine** - measures to protect rivers, streams and the marine environment.
  - **Vegetation** - management and protection of native plants, shrubs and trees.
  - **Air quality** - measures to maintain air quality and monitoring standards.
  - **Construction and workforce impacts** - plans for addressing specific impacts of construction and the construction workforce.

- **Training and Education (Q1 2017 to Q4 2017)** – engagement on the plan for monitoring the implementation and outcomes of Aboriginal, local, and regional training and education measures and opportunities for the Project. Measuring and reporting on the training and education will continue through construction to in service in 2019.

- **Pre-construction Engagement (Q4 2016 to Q2 2017)** – Ongoing engagement through TWGs, neighbourhood information sessions and online on topics such as construction planning, worker
accommodation, worker code of conduct, traffic planning, workforce accommodation, and economic and procurement opportunities.

- **Construction Readiness (Q2 2017 to Q3 2017)** – Ongoing engagement that would include advance notice of upcoming construction activities, economic opportunities associated with workforce hosting, procurement opportunities, and introduction of the Project community relations team for construction phases of the Project.

- **Municipal and Regional Government Engagement (Ongoing)** – In addition to engagement through TWGs, continue to meet with municipal and regional governments to provide updated Project information and to seek input into Project plans. These sessions will include briefings as requested.

- **Marine Engagement (Ongoing)** – Continue to engage with marine stakeholder and community interests to help inform them of potential effects of increased marine traffic associated with the Project. The three main topic areas include: 1) Marine Safety, 2) Construction and Operations of an expanded WMT, and 3) Emergency Response (enhancements to KMC’s Emergency Response at WMT and enhancements to the Marine Spill Response Regime). Table 1.1-3 lists the topics to be addressed in ongoing Marine Engagement.
### TABLE 1.2-3

**TOPICS TO BE ADDRESSED IN ONGOING MARINE ENGAGEMENT**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>- General updates on impact of TMEP to navigable waters</td>
<td>- Light Emissions Management</td>
<td>- Preparedness</td>
</tr>
<tr>
<td>- Any specific locations where navigation could be affected</td>
<td>- Fugitive Emissions management and Odours</td>
<td>- Enhancement of existing WMT ERP, Fire Plans and pre-fire plans</td>
</tr>
<tr>
<td>- Concerns raised by marine waterway users regarding project effects PFA boating safety campaign: “Safe Boating in Deep Sea Shipping Navigation Areas” Raise awareness of participants to TM’s boating safety poster/s and other information; e.g. installation of navigation marks/aids.</td>
<td>- Air Emissions Management</td>
<td>- Mutual Aid agreements</td>
</tr>
<tr>
<td>- Vessel timing and scheduling with affected stakeholders (i.e. through Second Narrows)</td>
<td>- Traffic management &amp; passing vessels</td>
<td>- Response</td>
</tr>
<tr>
<td>- Potential effects of proposed Marine Fisheries Offsets on navigable waters</td>
<td>- Marine Sediment Management</td>
<td>- Emergency Exercise and Training Program</td>
</tr>
<tr>
<td>- Marine Mammal Protection Program (related to vessel strikes)</td>
<td>- Noise mitigation</td>
<td>- Full-scale Emergency Exercise with post exercise report reviewed by third party</td>
</tr>
<tr>
<td>- Updated Tanker Acceptance Standard</td>
<td>- Aesthetics / Viewscape</td>
<td>- Collaboration with VPPA / WCMRC to explain existing response regime in Port jurisdiction</td>
</tr>
<tr>
<td></td>
<td>- Construction EPP</td>
<td>- Evacuation plans for WMT</td>
</tr>
<tr>
<td></td>
<td>- Marine Fisheries Offset Plan</td>
<td>- Volunteer Management</td>
</tr>
<tr>
<td></td>
<td>- Processes for addressing complaints and notification</td>
<td>- WMT Fire Fighting Capacity</td>
</tr>
<tr>
<td></td>
<td>- Procurement, Employment and Training Opportunities</td>
<td>- WCMRC enhancements</td>
</tr>
</tbody>
</table>

- Marine stakeholders for the purposes of this Report are defined in Table 1.2-1. They include neighbours and municipalities and those who operate along the established shipping lanes where TMEP-related tankers will transit. Activities include engagement through the TERMPOL Review Committee, meetings with terminal operators in Burrard Inlet (east and west of second narrows), presentation to commercial fishers and through Trans Mountain’s ongoing dialogue with the Chamber of Shipping for British Columbia (COSBC), shipping agents and other key associations in BC’s shipping sector.

- **Construction Engagement (Q3 2017 - Ongoing)** – Continue to engage with local governments, stakeholders, landowners and residents throughout the duration of the construction program to ensure a proactive response to interests and concerns that arise during the construction phase.

- **Emergency Management Engagement (Ongoing)** – Continue to engage to meet the requirements of the NEB’s Conditions relating to Emergency Management as well as KMC’s commitment to ongoing improvement through the development of Geographic Response Plans (GRPs).

- **Jobs and Procurement Engagement (Ongoing)** – Continue to promote employment and procurement registries to maximize opportunities for Aboriginal, local, and regional individuals and businesses.

Trans Mountain will continue to provide opportunities for the public to learn more about Project’s plan and provide feedback. These opportunities will vary and will be refined, however may include in person and

### 1.2.6 Community Benefits Memorandums of Understanding

In recognition of the potential for public inconvenience and temporary disruption associated with pipeline and facilities construction, Trans Mountain continued discussions with communities along the Project corridor regarding Community Benefit Memorandums of Understanding (MOU). Signed MOUs provide communities with benefits over and above the financial compensation for construction and operation of the pipeline and facilities through community lands. Table 1.1-4 provides an updated list of Community Benefit MOUs exceeding $8.47 M that have been signed to date with communities in the Province of BC. An additional $1.2 M has been committed for post-secondary education and training programs through the Education Legacy Program.
Trans Mountain has MOUs signed with all local governments from Edmonton to Abbotsford and Coquitlam. Outstanding community benefit MOUs in VFPA’s jurisdiction include:

- City of Burnaby - Trans Mountain has attempted to initiate community benefit discussions with the City of Burnaby regarding Burnaby Terminal and WMT. The City has declined offers to engage on this topic. Trans Mountain remains being committed to ongoing discussions to resolve any remaining issues, and is open to meeting with the City of Burnaby;
- BCIT - Trans Mountain has also offered scholarship funding agreements to educational institutes along the pipeline corridor and is currently in discussions with BCIT about a scholarship proposal.
- City of Surrey and Langley Township - Community Benefit discussions are ongoing.

### TABLE 1.2-4

<table>
<thead>
<tr>
<th>Date</th>
<th>Community</th>
<th>MOU Amount</th>
<th>Benefit to Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 27, 2014</td>
<td>District of Hope, BC</td>
<td>$500,000</td>
<td>Improvements to a community spaces</td>
</tr>
<tr>
<td>November 6, 2014</td>
<td>District of Barriere, BC</td>
<td>$290,000</td>
<td>Improvements to trails, playgrounds and education funding</td>
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<tr>
<td>February 26, 2015</td>
<td>City of Kamloops, BC</td>
<td>$700,000</td>
<td>Variety of community beautification projects.</td>
</tr>
<tr>
<td>February 26, 2015</td>
<td>City of Merritt, BC</td>
<td>$420,000</td>
<td>Community infrastructure.</td>
</tr>
</tbody>
</table>
| February 26, 2015  | Thompson-Nicola Regional District, BC          | $845,000   | Investment in four electoral areas:  
  - Area A: Vavenby, Birch Island and Blackpool — funds towards community parks.  
  - Area B: Blue River and Avola — funds towards parks, trails, and education funding.  
  - Area Q: Little Fort — funds for road upgrades and landscaping.  
  - Area P: Black Pines — funds for water infrastructure upgrades.                        |
| February 26, 2015  | District of Clearwater, BC                     | $390,000   | Variety of community projects, as well as funding for education and training opportunities. |
| February 26, 2015  | Village of Valemount, BC                      | $185,000   | Municipal infrastructure projects and local education programs.                      |
| April 7, 2015      | Thompson Rivers University (TRU), BC           | $500,000   | Contribution over 20 years toward funding annual awards for students in Trades, Social Work and Applied Research programs, and the Environmental Science graduate program. |
| February 15, 2016  | City of Abbotsford, BC                         | $1.3 M     | Revitalization of the city-owned Ledgeview Golf Course.                              |
| July 22, 2016      | City of Coquitlam, BC                          | $1 M       | Funding improvements to Mackin Park.                                                 |
| August 17, 2016    | City of Chilliwack, BC                         | $1.2 M     | Funding a new Vedder Greenway Pedestrian Trail Bridge.                               |
| September 8, 2016  | FVRD Area D                                   | $75,000    | Funding improvements to Thompson Community Park development and upgrades to Mount Cheam Trailhead parking lot |
| August 18, 2016    | Camosun College                               | $400,000   | Funding for bursaries and scholarships to the Camosun College Foundation’s TRADEmark of Excellence Campaign as a supporter of Camosun College’s Coastal Skills Initiative |
| November 2, 2016   | Coquitlam Foundation                          | $300,000   | Funding for scholarship program; for students of SD43 planning to attend identified programs at Douglas College, BCIT and JIBC |

### 1.2.7 Project Changes Resulting from Stakeholder Engagement

Trans Mountain’s complete record of its stakeholder engagement activities can be found in references listed in Section 1.1.1 of this Report. Throughout the regulatory process, Trans Mountain has engaged with municipal and regional governments, as well as key stakeholders to consider their interests and/or concerns in relation to ongoing Project planning and development. Table 1.1-5 of this Report highlights some of the major Project changes that have occurred as a result of input from municipal and regional governments on issues within the scope of the VFPA’s permit review. Table 1.1-5 is not intended as an all-inclusive list of Project changes.

### TABLE 1.2-5

<table>
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<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Incorporation of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Kamloops, Walnut Grove, Surrey, Port Kelis, City of Surrey (Frasier Heights)</td>
<td>• Rerouting to avoid residential areas.</td>
</tr>
<tr>
<td>City of Surrey</td>
<td>• Commitment to investigate alternative routing alignment along South Fraser Perimeter Road to avoid Surrey Bend Regional Park</td>
</tr>
<tr>
<td>Northcliff residents (near WMT)</td>
<td>• Changes to layout of Westridge Marine Terminal (WMT) berths</td>
</tr>
<tr>
<td>City of Burnaby, Northcliff residents</td>
<td>• Burnaby Mountain tunnel avoids impacts to City roads and residential area (approximate cost of $100 M).</td>
</tr>
<tr>
<td>All municipalities</td>
<td>• Risk Assessment to improve pipeline safety and provide additional safety measures above accepted Canadian Standards Association (CSA) Z662 Oil and Gas Pipeline Systems Code.</td>
</tr>
<tr>
<td>All municipalities</td>
<td>• Trans Mountain will consult with municipalities, communities, and Aboriginal groups on the protection of municipal and community water sources. Trans Mountain will develop (through a physically-verified survey) and maintain an inventory of water wells within 150 m of either side of the centre line. In the event there are changes related to construction of the pipeline, Trans Mountain is committed to find out the reason why and replace the water well if a change in the water well is the result of construction. Furthermore, Trans Mountain has committed to work closely with the Province of BC to develop a Groundwater Monitoring Program to ensure the integrity of the water supply is maintained before, during and after construction.</td>
</tr>
<tr>
<td>Metro Vancouver</td>
<td>• Additional Air Quality Modelling, controls and monitoring at WMT to control/reduce emissions.</td>
</tr>
</tbody>
</table>
| Bowen Island Municipality/Islands Trust, District of North Vancouver, Metro Vancouver, City of Vancouver, City of North Vancouver, North Shore Emergency Management Office, City of Richmond, City of Port Moody, City of Burnaby, Village of Belcarra, Corporation of Delta Islands Trust, City of Nanaimo, City of Sidney, Corporation of the City of Victoria, District of Sooke | • Through engagement with the marine community, different levels of government, Aboriginal groups and other key stakeholders, the Project: has identified further precautionary risk control measures that will mitigate risk and address concerns due to increased tanker traffic. These include:  
  • Port Metro Vancouver will establish a shipping channel for East Burrard Inlet (east of Second Narrows Bridge)  
  • Laden tanker tug escort will be expanded to cover the entire tanker shipping route through the Strait of Georgia and between Race Rocks and the 12 nautical mile marker to assist with navigation as per Final Argument, Section 8.3, Social Aspects of Marine Shipping ESA  
  • Pilot disembarkation will take place near Race Rocks and not at Victoria (pilots have now been trained to disembark by helicopter)  
  • Enhanced Situational Awareness techniques will be applied that will require:  
    o Safety calls by pilots and masters of laden tankers  
    o Notices to industry issued by Pacific Pilotage Authority  
    o Tactical use of escort tug along shipping route  
  • Boating safety engagement and awareness program led by Pacific Pilotage Authority  
• Many concerns expressed over capacity of spill responders. Since the Application was filed, WCMRC has worked on geographic area response plans to identify site specific response techniques and proposed enhanced oil spill response regime for South BC coast. Once the Project is in-service, WCMRC has confirmed it would bring significant improvement in capacity and response time – benefiting all users and neighbours along the marine shipping corridor:  
  • $150+ million investment in WCMRC  
  • Creation of approximately 100 new jobs  
  • Establishing of five new response bases along shipping route – some of which will also have 24/7/365 response capability |
| District of North Vancouver, City of Vancouver, City of North Vancouver, North Shore Emergency Management Office, Islands Trust | • Over 20 layouts for WMT were considered as part of managing impacts to local neighbours as identified in open houses, small workshops and meetings with local residents. Key objectives for terminal layout include:  
  • provide the highest level of navigational safety, both for vessels berthing at WMT and for other vessels transiting the inlet or at one of the four anchorages nearby;  
  • provide three Aframax capable berths, allowing capacity for vessels to wait for cargo or transit windows and reduce pressure on the anchorages (and the number of vessel movements);  
  • allow the existing dock to remain in service during the construction of the new dock complex, and specifically until the new Berth 1 can be commissioned;  
  • minimize the overall footprint and the impact to community views; and,  
  • eliminate deep-water dredging and reduce the amount of dredging for the foreshore expansion. |
| Westridge Residents, Burnaby, District of North Vancouver | • Lighting and energy efficiency of the proposed WMT  
• As a result input received to minimize lighting as much as possible, the Project proposed a lighting plan with the following design considerations:  
  • Use of LED lights for outdoor area lighting to reduce glare and energy consumption  
  • Use of directional lighting, where possible, to reduce glare and skyglow  
  • Achieve compliance with IESNA recommendation for rural and low density residential areas (Dark Sky Zone L21)  
  • Ensure lighting is appropriate for safe operation of the facility |
Stakeholder and Communities Not Identified in Section 2.0

Most stakeholders in pipeline and marine corridor communities in BC have engaged cooperatively with Trans Mountain in relation to the Project. Trans Mountain continues to work with communities and stakeholders to understand and resolve, where practical, any unresolved issues.

As part of the NEB regulatory process, Trans Mountain is reviewing commitments made to local and regional governments, Aboriginal groups and other stakeholders to identify any issues not addressed by the NEB’s conditions for the Project. A preliminary review reveals the majority of issues have been addressed by NEB condition requirements. Trans Mountain will create, and make publically available, a Commitments Tracking table outlining any issues not addressed through the conditions or management plans and their completion status as described in the requirements for NEB Condition 6. The Commitment Tracking Table will be updated monthly during construction and quarterly during operations until all commitments have been satisfied.

This section provides an overview of stakeholders and communities (listed alphabetically) from Table 1.2-1 not specifically identified in Section 2.0 as participants in the NEB process.

1.2.8.1 BC Ministry of Forests, Lands and Natural Resource Operations

BC Ministry of Forests, Lands and Natural Resource Operations (FLNRO) has been engaged as a future regulator for the project development activities at WMT. As described in Table 4.8.2 of Section 4.8 of the current draft of the Westridge Marine Terminal Environmental Protection Plan (dated November 2016),2 the following permits could potentially be required from the BC Ministry of Forest, Lands and Natural Resource Operations (FLNRO):

- **Heritage Conservation Act** permits (e.g., Alteration Permit (Section 12) and Heritage Inspection Permit (Section 14))
- Scientific Fish Collection Permit.

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2 WMT Environmental Protection Plan was posted online for public review and comment on November 22, 2016 at the following link: [https://www.transmountain.com/westridge-epp](https://www.transmountain.com/westridge-epp)
In particular certain issues and mitigations of interest to BC FLNRO have been considered in Table 1.2.3-1. Trans Mountain will continue to engage with BC FLNRO as part of the pre-construction period of engagement, seeking input on Environmental Protection Plans and submitting all required permit applications for construction.

**TABLE 1.2.8-1**

<table>
<thead>
<tr>
<th><strong>BC FLNRO – OUTSTANDING ISSUES OR CONCERNS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concerns or issues</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
</tbody>
</table>
| Resource – specific mitigation measures for wildlife and wildlife habitat | • Surveys will be conducted to determine if active stick nests (e.g., bald eagle, great blue heron) are located in the area to be cleared or adjacent to the WMT, prior to the commencement of construction activities.  
  o Surveys completed to date indicate one active bald eagle nest adjacent to the southeast boundary of the WMT, and no active heron colonies have been identified within the area.  
  o Results of these surveys will inform the development of a Nest Management Plan which will provide mitigation options for identified nests.  
  o Potential mitigation options may include pre-construction survey, wildlife monitoring, or deterring nesting to an alternate structure or location. Mitigation measures in the Nest Management Plan are being developed in consultation with BC MFLNRO and will be implemented prior to the commencement of construction activities at the WMT. |
| Archaeological/ Palaeontological Heritage Resources | • Follow applicable recommendations identified in the Archaeological Impact Assessment. Determine if the approvals from the appropriate Government authority are necessary prior to commencing any construction activity located within 30 m of a monument, archaeological site or burial ground.  
  • Suspend work in proximity (i.e., within 30 m or other distance as specified in the applicable regulatory permit) to archaeological, palaeontological or historical sites (e.g., stone flakes, points, modified bone, pottery fragments and fossils) if discovered during construction. No work at that particular location shall continue until permission is granted by the appropriate Government authority. Follow the contingency measures identified in the Heritage Resources Discovery Contingency Plan (see Appendix B of the WMT EPP filed with the VFPA permit application). For known archeological sites: Trans Mountain will not permit topsoil/root zone material salvage and/or grading in proximity to known archaeological sites unless mitigation measures have been implemented, or otherwise approved by BC MFLNRO.  
  • Trans Mountain will prohibit the collection of any historical, archaeological or palaeontological resources by Project personnel. |
| Fire Suppression in the event of wildfire | • The Construction Contractor will develop a Fire Contingency Plan (Volume 4C, Section 5.2.7 - Filing ID A3S1L1) and a Fire Prevention Plan (Volume 4C, Section 5.2.8 - Filing ID A3S1L1) with minimum guidelines in the TMEP Health and Safety Management Plan. This plan will be used in |
conjunction with the Fire Contingency Plan and the Fire Prevention Plan during all phases of construction.

1.2.8.2 Chamber of Shipping British Columbia

The Chamber of Shipping BC (COSBC) applied to participate in the NEB regulatory process and received Intervenor status; however, COSBC did not participate in any information requests, provision of evidence or final argument as part of the TMEP NEB review. COSBC communicated frequently with TMEP representatives and often hosted meetings and other engagement opportunities with the marine community for TMEP. The Chamber has been an advocate for the marine regulatory and safety regimes, the importance of west coast access for Canada's petroleum exports, and they have helped to facilitate industry engagement around the potential impacts of shipping on marine mammals. The Chamber has expressed interest in the potential for enhancements to the safety regime and environmental performance of the sector, on the premise of also managing risk to the sector's trade performance and management of potential cost increases for its members. The issues and concerns raised by the Chamber of Shipping have largely been addressed through NEB Conditions 91, 131, 132, 133, 134, 144 as well as through dock design, the tug matrix consultation, modelling of marine traffic through the MRA (Second Narrows) and updates to the vessel acceptance criteria. Outstanding concerns are reviewed in Table 1.2.3 - 1.

TABLE 1.2.8-2

<table>
<thead>
<tr>
<th>Concerns or issues</th>
<th>Resolutions</th>
</tr>
</thead>
</table>
| Potential impacts to vessel movements in the harbor of increased vessel traffic through Second Narrows MRA | - Substantial modeling has been carried out to assess the capacity of Second Narrows transits addressing all current and future forecasted traffic, including TMEP. Traffic forecasts were developed after consultation with terminals in the Port and verified by VFPA. Details of the modeling carried out so far can be found in Volume 8 of the Application and various information requests responded to throughout the NEB review.  
  - Trans Mountain shared a report entitled “TMEP Development Phase II Analysis of MRA Windows & Transit Opportunities” by Ausenco (see Attachment 1 to respond to Port of Vancouver IR No. 1.2.1, filing ID A3X6V5) and reviewed key findings in detail.  
  - VFPA is currently engaged in reviewing traffic and passage needs for the entire port and as part of that process is engaging with various port tenants and stakeholders. Trans Mountain is committed to supporting the VFPA in this area in order to ensure the continued safety and efficiency of transits by Trans Mountain tankers in accommodation with other port traffic. |
| Pressure on Indian Arm anchorage in terms of need by all types of deep sea vessels | - Expanded WMT will allow straight out departure of Westridge vessels to Second Narrows.  
  - Trans Mountain will do everything possible to allow for direct arrival to terminal on inbound passage and mitigate additional pressure on current anchorages |
| Cost implications of marine regulatory changes to improve safety and environmental performance | - Trans Mountain is committed to supporting continued improvements to the local marine safety regime and has provided funding support in the past towards various marine safety assessments and initiatives. Trans Mountain is not aware of any specific marine regulatory changes that would impact non-Trans Mountain traffic.  
  - Trans Mountain has committed to continuing to enforce its |
tanker acceptance criteria, which requires tankers and barges to be equipped, maintained and operated in accordance with international and federal regulations and best practices.

| Cost and resource draw of marine mammal avoidance to shipping sector | • This is being addressed by VFPA under its Enhancing Cetacean Habitat Observation (ECHO) Program, which is strongly supported by Trans Mountain through substantial funding arrangements. The ECHO program has successfully raised the awareness of the local marine community to the possible impact of shipping in general, not specific to a project, on marine mammals that are residents of this area, especially those species the Species at Risk Act (SARA) list. Together with Transport Canada, other regulators and stakeholders, the COSBC is a participant in the ECHO Program and is actively involved in mitigation measures that will be applicable to all members of the local marine industry. |

1.2.8.3 **CN Rail**

CN Rail did not formally participate in the NEB regulatory process. TMEP has been in regular contact with CN Rail which has assets and rights-of-way that intersect with the existing Trans Mountain Pipeline as well as the corridor for the Project. CN Rail also operates the Rail Bridge at Second Narrows which must be raised for Project-related vessels to pass under for inbound and outbound transits calling at WMT. CN Rail has expressed interest in the potential impact of TMEP related vessel traffic on the operation of the CN Rail Bridge at Second Narrows, the potential for the Project to enable an efficiency review of the rail capacity of the bridge, the potential procurement opportunities for Project construction and the protection of CN Rail property and its workers proximate to Trans Mountain operations, in particular in the event of any construction activity or emergency incident related to the pipeline and or facilities. The concerns raised by the CN Rail have been addressed through NEB Conditions 60, 63, 89, 90, 126, 131 and 136.

<table>
<thead>
<tr>
<th>TABLE 1.2.8-3</th>
<th>CN RAIL OUTSTANDING ISSUES AND CONCERNS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concerns or Issues</strong></td>
<td><strong>Resolutions</strong></td>
</tr>
<tr>
<td>Potential impacts of increased vessel traffic through Second Narrows MRA</td>
<td>• Potential effects to the CN Rail bridge are discussed in Section 4.3.11.4.2 of Volume 8A (Filing ID A3S4Y3)</td>
</tr>
<tr>
<td>Opportunities for project to help improve the rail car transit capacity of the Second Narrows CN Rail Bridge</td>
<td>• TMEP undertook targeted engagement with CN Rail and other potentially affected terminals east and west of Second Narrows</td>
</tr>
<tr>
<td></td>
<td>• Using this feedback TMEP undertook analysis of possible impediments to rail traffic accessing Vancouver's north shore via CN Rail Bridge. Data was shared with VFPA and CN Rail as well as other potentially affected terminals east and west of Second Narrows.</td>
</tr>
<tr>
<td></td>
<td>• In accordance with recommendation from the TERMPOL Review Committee in their report (Recommendation 6) TMEP is continuing to work with VFPA to share vessel transit information and discuss the effects of the Project on available transit windows and the movement of vessels within the MRA</td>
</tr>
<tr>
<td></td>
<td>• Substantial modeling has been carried out to assess the capacity of Second Narrows transits accounting for all current and future forecasted traffic, including TMEP. Traffic forecasts were developed after consultation with terminals in the Port and verified by VFPA. Details of the modeling carried out so far can be found in Volume 8 of the</td>
</tr>
</tbody>
</table>
Application and various information requests responded to throughout the NEB review.
- E.g. a report entitled “TMEP Development Phase II Analysis of MRA Windows & Transit Opportunities” by Ausenco (see Attachment 1 to Response to Port of Vancouver IR No. 1.2.1, filing ID A3X6V5) was shared with VFPA and CN Rail as well as other potentially affected terminals east and west of Second Narrows.
- TMEP is aware of ongoing initiatives on the part of CN and CP to improve the efficiency of rail traffic on the Seconds Narrows Rail Bridge, which will serve to improve rail capacity.

Protection of CN Rail property and CN Rail workers
- CN Rail is among the key stakeholder invited to emergency management consultation events as well as emergency exercises.

1.2.8.4 Council of Marine Carriers
The Council of Marine Carriers (Council) did not formally participate in the NEB regulatory process. Trans Mountain engaged with the Council as part of marine community engagement about the Project-related increase vessel traffic and the resources required to manage risks. The Council participated in group meetings including Risk Hazard Identification for TERMPOL assessments, review of the tug matrix and other opportunities to review marine safety regime enhancements. The concerns raised by the Council have largely been addressed through NEB Conditions 52, 53, 91, 131, 132, 133, 134, and 144. Outstanding concerns are reviewed in Table 1.2.3-4

<table>
<thead>
<tr>
<th>TABLE 1.2.8-4</th>
<th>COUNCIL OF MARINE CARRIERS – OUTSTANDING ISSUES AND CONCERNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerns or issues</td>
<td>Resolutions</td>
</tr>
<tr>
<td>Vapour recovery during loading of a vessel</td>
<td>• Vapour recovery is part of the terminal design considerations. New vapour recovery units will be installed to capture about 99.9 per cent of vapours, which will then be liquefied and injected back into the ships being loaded.</td>
</tr>
<tr>
<td>Consultation regarding pilot resources for the increase in TMEP related vessel traffic</td>
<td>• Engagement has been frequent and thorough with the Pacific Pilotage Authority and the BC Coast Pilots regarding possible resource demands if the Project proceeds.</td>
</tr>
<tr>
<td>Terminal location in Delta vs. Burrard Inlet</td>
<td>• As described in response to NEB IR No. 2.044a, alternate terminal locations were evaluated. WMT remains the safest and most environmentally responsible location to build the terminal.</td>
</tr>
</tbody>
</table>
| Spill prevention with the increase in vessel traffic | • Trans Mountain has identified further precautionary risk control measures that will mitigate risk due to increased tanker traffic. Some of these measures have already been put into place and are not dependent on the proposed Expansion Project. These include:
  ○ VFPA intends to implement a channel design to ensure vessels can safely navigate in the vicinity of WMT and all the other deep sea terminals in the area. (east of Second Narrows Bridge)
  ○ Laden tanker tug escort through Burrard Inlet and English Bay has been further improved by having a tethered tug in attendance through English Bay till |
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the vessel is off Point Grey (Buoy QA). Although this had been proposed in the TMEP marine risk assessment to mitigate any additional risk posed by increased tanker traffic in Vancouver Harbour, this item has already been implemented as a result of ongoing dialogue and information sharing with PPA and BCCP. 

- Enhanced Situational Awareness techniques will be applied that will require:
  - Safety calls by pilots and masters of laden tankers
  - Notices to industry issued by Pacific Pilotage Authority
  - Tactical use of escort tug along shipping route
  - Boating safety engagement and awareness program led by Pacific Pilotage Authority
  - Encourage use of Automatic Identification System (AIS) and radar reflector by smaller vessels

- TMEP will enable the investment of over $150M in enhanced spill response including five new bases, over 100 new jobs and new vessels, including a permanent 24/7 base within Burrard Inlet.

1.2.8.5 Canadian Pacific Rail

Canadian Pacific Rail (CP Rail) did not formally participate in the NEB regulatory process. Trans Mountain has been in regular contact with CP Rail which has assets and rights-of-way intersecting with the existing Trans Mountain Pipeline as well as the corridor for the Project. CP Rail has expressed some interest in the construction of the new dock complex proximate to the CP Rail tracks that traverse the WMT, as well as the potential impact of protest activity to CP Rail assets in the WMT area. CP Rail has also expressed interest in maximizing the rail traffic that traverses the CN Rail Bridge at Second Narrows; the increase in bridge raises that would have to occur with increase in vessel transits to and from WMT. The concerns raised by the CN Rail have been addressed through NEB Conditions 60, 63, 89, 90, 126, 131 and 136. Outstanding concerns are reviewed in Table 1.2.3-5.

**TABLE 1.2.8-5 CP RAIL – OUTSTANDING ISSUES OR CONCERNS**

<table>
<thead>
<tr>
<th>Concerns or issues</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential impacts to rail traffic of increased vessel traffic through Second Narrows MRA (See 3.F.3: effects on traffic transiting the Second Narrows)</td>
<td></td>
</tr>
</tbody>
</table>
- Potential effects to the CN Rail bridge are discussed in Section 4.3.11.4.2 of Volume 8A (Filing ID A3S4Y3)  
- TMEP undertook targeted engagement with CN Rail and other potentially affected terminals east and west of Second Narrows  
- In accordance with recommendation from the TERMPOL Review Committee in their report (Recommendation 6) TMEP is continuing to work with VFPA to share vessel transit information and discuss the effects of the Project on available transit windows and the movement of vessels within the MRA,  
- Using this feedback TMEP undertook analysis of possible impediments to rail traffic accessing Vancouver’s north shore via CN Rail Bridge. Data was shared with VFPA and CN Rail as well as other potentially affected terminals east and west of Second Narrows. |
| Opportunities for Project to help improve the rail car transit capacity of the second narrows CN Rail Bridge. (See 3.F.4: impact of TMEP on the expansion of other products handled at VFPA) | |
Trans Mountain will continue to offer meeting opportunities and updates to CP Rail officials, as requested and share any updates of interest.

| Impact of protest activity on CP Rail assets and right-of-way | TMEP enjoys a good relationship with CP Rail and has invited CP Rail to emergency response workshops and exercises. |

1.2.8.6 Fraser Health Authority and Vancouver Coastal Health Authority

WMT is in the jurisdiction of the Fraser Health Authority; however, the Vancouver Coastal Health Authority has interests and concerns related to the Project due to proximity to their jurisdiction and the shared air shed and marine waters. Neither Health Authority formally participated in the NEB regulatory process; however, some correspondence as well as a report co-authored by the Vancouver Coastal Health and the Fraser Health Authorities was submitted as attachments to some Information Requests received from Lower Mainland or Fraser Valley Municipalities during the NEB Hearing. Fraser Health and Vancouver Coastal Health Authorities identified their top five concerns in a report to the cities of Burnaby and Vancouver (see C69-44-21 - Health Impacts - VCH and FH to City of Vancouver and City of Burnaby – Filing ID A4L8H5). Trans Mountain met jointly with both Health Authorities early in the Project’s development (January 2013) as well as September 2015 to review the findings of their reports.

Some of the issues expressed by Health Authorities are addressed through NEB Conditions 52, 89, 90, 123, 126, 129, 133, 134, 136, 141 and 153. An information package was provided to representatives of both health authorities in follow up to the September 2015 meeting addressing key concerns (see Appendix C). An additional briefing package is under development for distribution in Q1 2017.

| TABLE 1.2.8-6
FRASER HEALTH AUTHORITY & VANCOUVER COASTAL HEALTH AUTHORITY – OUTSTANDING ISSUES OR CONCERNS |

<table>
<thead>
<tr>
<th>Concerns or issues</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The need to model a large oil spill event in the Burrard Inlet</td>
<td>See Appendix M for Trans Mountain’s responses to the concerns and issues identified by Fraser Health and Vancouver Coastal Health</td>
</tr>
<tr>
<td>The need to use a systems approach to assess the adequacy of spill prevention, response, and mitigation</td>
<td></td>
</tr>
<tr>
<td>The capacity to monitor specific chemical substances released following a large oil spill and to track their dispersion in real time</td>
<td></td>
</tr>
<tr>
<td>The need to include the local health authorities in the spill notification protocols</td>
<td></td>
</tr>
<tr>
<td>The need for human activities and habitat baseline data to facilitate remediation decisions</td>
<td></td>
</tr>
</tbody>
</table>

Table 1.2.3-6 will be updated to reflect any additional concerns prior to final permit filing.

1.2.8.7 Island Tug and Barge

Island Tug and Barge (ITB) did not formally participate in the NEB regulatory process. Trans Mountain engaged with ITB on a number of occasions as part of engagement with other terminals and marine operators east and west of Second Narrows. ITB expressed interest in any potential impacts of increased vessel traffic through Second Narrows from the anticipated increase in vessel traffic resulting from TMEP.
ITB also asked to be notified of procurement opportunities that could be available with the Project in future. At this time, Trans Mountain is not aware of any outstanding issues with ITB.

### TABLE 1.2.8-7

**ISLAND TUG & BARGE – OUTSTANDING ISSUES OR CONCERNS**

<table>
<thead>
<tr>
<th>Concerns or issues</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential impacts to vessel movements in the harbor of increased vessel traffic through Second Narrows MRA</td>
<td>1. Trans Mountain shared a report entitled “TMEP Development Phase II Analysis of MRA Windows &amp; Transit Opportunities” by Ausenco (see Attachment 1 to Response to Port of Vancouver IR No. 1.2.1, filing ID A3X6V5) and reviewed key findings in detail.</td>
</tr>
<tr>
<td>Future procurement opportunities</td>
<td>2. Trans Mountain advised ITB to sign up to the procurement database at <a href="http://www.transmountain.com/procurement">www.transmountain.com/procurement</a> to receive notifications about upcoming opportunities, including potential to provide future tug services.</td>
</tr>
</tbody>
</table>

### 1.2.8.8 Polygon Homes - Cates Landing

Polygon Homes did not participate in the NEB regulatory process. The Cates Landing development is unoccupied and currently under construction; with anticipated occupancy in fall of 2017. It is located along the waterfront in the District of North Vancouver (3919 Dollarton Highway). The property is adjacent to Cates Park, a co-managed park between the District of North Vancouver and the Tsleil-Waututh First Nation. Attempts to contact Polygon have not resulted in any meetings to date. Trans Mountain will ensure the developer (Polygon Homes) is provided with notification material as part of ongoing outreach and meeting requests.

### 1.2.8.9 Seaspan

Seaspan did not formally participate in the NEB regulatory process. Seaspan was part of meetings held with marine community members on a regular basis throughout the NEB application review process. The company was also included as part of TMEP’s engagement with terminal operators east and west of the Second Narrows in 2013. Seaspan is a major tug provider to all ships in the Port of Vancouver and regularly provides tug services to tankers. As such the company was invited to participate in developing tug-related requirements for the enhanced tug escort package committed by the Project. Seaspan remains interested in future procurement opportunities for their towage and barge businesses. They have also been part of the working group led by tug expert Robert Allan Limited, in the development of a “tug matrix” which will be used to determine new escort tug criteria for enhanced tug escort of Project vessels along the shipping route throughout the course of a year.

### TABLE 1.2.8-8

**SEASPAN – OUTSTANDING ISSUES OR CONCERNS**

<table>
<thead>
<tr>
<th>Concerns or issues</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential impacts to vessel movements in the harbor of increased vessel traffic through Second Narrows MRA</td>
<td>1. Trans Mountain discussed the issue during marine community meetings in which Seaspan, VFPA, Chamber of Shipping and other marine parties participated.</td>
</tr>
<tr>
<td></td>
<td>2. Trans Mountain shared a report entitled “TMEP Development Phase II Analysis of MRA Windows &amp; Transit Opportunities” by Ausenco (see Attachment 1 to Response to Port of Vancouver IR No. 1.2.1, filing ID A3X6V5) and reviewed key findings in detail.</td>
</tr>
<tr>
<td></td>
<td>3. Seaspan provided letter of support based on their assessment of tanker movements. The letter can be found in Appendix A of the Marine Traffic Report filed with the VFPA.</td>
</tr>
</tbody>
</table>
Future procurement opportunities

- Trans Mountain advised Seaspan to sign up to the Project procurement database at www.transmountain.com/procurement to receive notifications about upcoming opportunities, including potential to provide future tug services.

### 1.2.8.10 Shell – Shellburn Marine Terminal

Shell did not formally participate in the NEB regulatory process. Meetings were held with Shell in 2013 as part of TMEP engagement with terminal operators east and west of the Second Narrows. Shell was interested in the detail of the proposal, and to learn of the potential implications of vessel transits on other vessel traffic that would need to transit the Second Narrows. Attempts have been made since 2013 to meet with Shell and provide updates, including the analysis of MRA windows and transit opportunities (Ausenco Report – Filing ID A3X6V5). Trans Mountain will continue to offer opportunities to engage, including invitations to stakeholder workshops on the environmental plans for WMT, as well as the emergency exercises. Trans Mountain is not aware of any outstanding issues with Shell at this time, however will continue to seek input by ways of meeting invitations and sharing of information via email.

**TABLE 1.2.8-9**

<table>
<thead>
<tr>
<th>Shell – OUSTANDING ISSUES OR CONCERNS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concerns or issues</strong></td>
</tr>
<tr>
<td>Potential impacts to vessel movements in the harbor of increased vessel traffic through Second Narrows MRA</td>
</tr>
<tr>
<td>Mutual aid opportunities</td>
</tr>
</tbody>
</table>

### 1.2.8.11 Shipping Federation of Canada

The Shipping Federation of Canada (Federation) did not formally participate in the NEB regulatory process. Trans Mountain provided presentations and updates to the Federation during the Project’s development and regulatory review. The Federation will continue to receive updates and opportunities to engage. Trans Mountain is not aware of any outstanding issues with the Federation.

**TABLE 1.2.8-10**

<table>
<thead>
<tr>
<th>Shipping Federations of Canada – OUTSTANDING ISSUES OR CONCERNS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concerns or issues</strong></td>
</tr>
<tr>
<td>Costs of regime improvements to shipping sector</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public confidence in the tanker safety regime and West Coast spill response capability.</th>
<th>Trans Mountain has invested considerable resources to amplify the work of different aspects of the maritime regime to deliver safe shipping and world class spill response. Examples of materials can be found in Appendix P. Features in these materials are key enhancements to the marine safety regime that have been or will be enabled by the Project's development.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Trans Mountain has identified further precautionary risk control measures that will mitigate risk due to increased tanker traffic. Some of these measures have already been put into place and are not dependent on the proposed Expansion Project. These include:</td>
</tr>
<tr>
<td></td>
<td>o VFPA will establish a shipping channel for East Burrard Inlet (east of Iron Workers’ Memorial Bridge)</td>
</tr>
<tr>
<td></td>
<td>o Laden tanker tug escort will be expanded to cover the entire tanker shipping route through the Strait of Georgia and between Race Rocks and the J Buoy at the western entrance to Juan de Fuca Strait (consistent with Final Argument – section 8.3, Social Aspects of Marine Shipping ESA)</td>
</tr>
<tr>
<td></td>
<td>o Pilot disembarkation will take place near Race Rocks instead of Victoria (pilots have now been trained to disembark by helicopter)</td>
</tr>
<tr>
<td></td>
<td>o Enhanced Situational Awareness techniques will be applied that will require:</td>
</tr>
<tr>
<td></td>
<td>▪ Safety calls by pilots and masters of laden tankers</td>
</tr>
<tr>
<td></td>
<td>▪ Notices to industry issued by Pacific Pilotage Authority</td>
</tr>
<tr>
<td></td>
<td>▪ Tactical use of escort tug along shipping route</td>
</tr>
<tr>
<td></td>
<td>▪ Boating safety engagement and awareness program led by Pacific Pilotage Authority</td>
</tr>
<tr>
<td></td>
<td>▪ Encourage use of Automatic Identification System (AIS) and radar reflector by smaller vessels</td>
</tr>
<tr>
<td></td>
<td>• TMEP will enable the investment of over $150M in enhanced spill response including five new bases, over 100 new jobs and new vessels</td>
</tr>
</tbody>
</table>

| Navigation safety of smaller craft in the vicinity of g deep draft vessels. | • As per NEB Condition 131 – Marine Public Outreach Program – Trans Mountain has developed a marine safety campaign with materials targeted to recreational, tourism, commercial fishery and Aboriginal audiences. A copy of the material is available in Appendix S. |

1.2.8.12 **Transport Canada (Navigation Protection Program)**

Transport Canada chaired the TERMPOL Review Committee (TRC), which undertook a technical review of the marine aspects of the Project, including review of the marine risks associated marine transportation. Transport Canada issued a TERMPOL Report and provided it to the NEB as part of
Transport Canada’s input to the regulatory process. The recommendations of the TRC may be considered as ongoing topics, which are currently being addressed.

**TABLE 1.2.8-11**
TRANSPORT CANADA NAVIGATION PROTECTION – OUTSTANDING ISSUES OR CONCERNS

<table>
<thead>
<tr>
<th>Concerns or issues</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERMPOL Report recommendations as well as the NEB website (Filing ID, A4F8Z4)</td>
<td>• Trans Mountain supports and agrees to adopt each of the 17 recommendations and 31 findings in the manner outlined in Trans Mountain Response to NEB IR TERMPOL Report and Outstanding Filings (Filing ID A4G3U5)</td>
</tr>
</tbody>
</table>
2.0 ISSUES RESOLUTION

As referenced in Section 1.2, this section summarizes the key issues raised by participants in the NEB process. For the purposes of this Report, outstanding issues were identified through their written argument and/or other submissions to the NEB. This Report does not duplicate the information on the public record with the NEB; rather it is intended as an accompaniment to the information already on file.

Trans Mountain will continue its engagement with all levels of government and key stakeholders. This will occur through one-on-one meetings, workshops and TWGs with local governments along the Project pipeline and marine shipping corridors.

2.1 Municipal and Regional Governments

Several municipalities and regional districts within BC participated in the NEB’s hearing process either as Intervenors or through the Letter of Comment process. Trans Mountain will not attempt to re-summarize and address all the issues raised by municipalities and regional districts in this Report as this was undertaken through the NEB’s process; see NEB filings for more detail. Appendix U provides a status update regarding the resolution of key issues raised and information on how those key issues will be addressed either through NEB Condition or TMEP Commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

2.1.1 City of Burnaby

Section 1.2.1 contains the NEB views on TMEP’s Consultation with Governments and specifically comments on the fact not all municipalities accepted the opportunity to engage with Trans Mountain effectively. The City of Burnaby did; however, formally participate in the NEB’s regulatory process as an Intervenor. The City submitted numerous Information Requests, various motions, and written final argument in the NEB’s process. Appendix T provides a complete list of all of the documents filed on the NEB record by the City of Burnaby.

The City of Burnaby has concerns related to:

- community support and community concerns;
- impacts to community infrastructure and ongoing operation, as well as the costs associated;
- economic impacts to businesses affected by construction;
- costs incurred to municipality in the event of a spill;
- increased risk and consequences of spills and accidents as a result of the Project, including WMT;
- the financial, environmental and health impacts of a spill to the community;
- the ability for TMEP to respond in a timely manner and have the appropriate resources to response to an incident;
- risks associated with operational air emissions at WMT;
- impacts and risks of additional tanks at Burnaby Terminal;
- increased tanker traffic in Burrard Inlet;
- tanker traffic will increase “wave wash” which impacts marine invertebrates, and could cause impacts to rivers at the mouth of Burrard Inlet that are crucial for migrating salmon, including the Capilano, Seymour and Indian Rivers;
- their local by-laws;
• construction impacts to recreational use areas including land base areas and Burrard Inlet;

• operational impacts to protected species in Burnaby parks and conservation areas. These areas include fish-bearing waterways or conservation areas that are important for the habitat of migrating salmon, as well as Nooksack Dace and Cutthroat Trout;

• noise impacts to marine wildlife due to construction and its associated activities; and

• impacts to wildlife such as the Killer Whale, Great Blue Heron, and migratory birds.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

2.1.2 City of North Vancouver

The City of North Vancouver (CNV) formally participated in the NEB regulatory process as an Intervenor. CNV submitted Information Requests, motions and written final argument in the NEB’s process. Appendix T provides a complete list of all of the documents filed on the NEB record by the CNV.

The CNV has concerns related to:

• Trans Mountain risk assessments and emergency spill response;

• the potential environmental and socio-economic effects of the Project, including cumulative environmental effects that are likely to result from the Project, including those required to be considered by the NEB’s filing Manual;

• methodology of Trans Mountain’s oil spill analysis; the likelihood of spills associated with the Project;

• human health risk assessment (HHRA) adequacy and conforming to the requirements of the BC Ministry of Environment; HHRA does not refer to Health Canada guidance documents;

• the potential environmental and socio-economic effects of marine shipping activities that would result from the proposed Project, including the potential effects of accidents and malfunctions that may occur;

• spill model presented in the Application adequacy and the effects of a spill in the Burrard Inlet are likely to be much more significant than anticipated by Trans Mountain – specific concerns: (1) beaching algorithm in the model does not allow for refloating of oil that is beached; and (2) “unreasonable and inappropriate assumption” the containment boom at the WMT will always be in place and will be 100 per cent effective;

• risk of a marine oil spill occurring, thoroughness and adequacy of assessment in the Application, unacceptable such a spill, whether small or large, will have significant adverse impacts on its residents, environment, culture and economy;

• potential impacts of the Project on landowners and land use;

• high residential density near the waterfront; an extensive shoreline, the entirety of which is adjacent to the shipping route through Burrard Inlet to the WMT;

• a developed waterfront that includes numerous parks and open spaces, such as Shipbuilders’ Square and the Shipyards, Lonsdale Quay, Waterfront Park, Kings Mill
Walk Park and Spirit Trail, all of which are highly valued by the community and used by residents and visitors;

- contingency planning for spills, accidents or malfunctions, during construction and operation of the Project; and

- safety and security during construction of the proposed Project and operation of the Project, including emergency response planning and third party damage prevention.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

### 2.1.3 City of Port Moody

The City of Port Moody formally participated in the NEB regulatory process as an Intervenor. The City submitted Information Requests, motions and written final argument in the NEB’s process. Appendix T provides a complete list of all of the documents filed on the NEB record by the City of Port Moody.

The City of Port Moody has concerns related to:

- potential impact of the Project, including an oil spill:
  - on environmentally sensitive areas including fish-bearing watercourses and riparian areas;
  - to marine wildlife due to tanker traffic;
  - on species at risk such as the Band-tailed Pigeon, Great Blue Heron, Pacific Water Shrew and Western Purple Martin;
  - on wildlife and wildlife habitat;
  - in Burrard Inlet;
  - on parks and recreation activities in the community;
  - on businesses and landowners;
- potential impacts of the Project to the Burrard Inlet Watershed, specifically the Noons Creek and Mossom Creek hatcheries and educational learning centres;
- adequacy of information provided to the City regarding the environmental impacts of a spill, both land and marine;
- marine safety including channel manoeuvering and anchorage design, berthing provisions, marine traffic controls, decision-making protocols for tankers (i.e., weather conditions), tanker loading and unloading protocols,
- adequacy of mitigation plans for the Band-tailed Pigeon, Great Heron, or Western Purple Martin;
- potential municipal costs incurred as a result of an oil spill, including emergency response, communications, asset depreciation, and lost revenues from civic facilities;
- potential impacts to community resources during a spill;
- Trans Mountain’s spill response capabilities;
- the ability for community first responders to respond to a spill;
• adequacy of information provided to the community regarding emergency response;
• the potential for bitumen to sink and the impacts associated with this;
• knowledge gap concerning other potential local government resources that would be needed to respond to an emergency;
• adequacy of emergency response protocols regarding security plans, plans for shoreline clean up, volunteer management protocols, and public communication procedures provided to the community;
• adequacy of a strategy to deal with potential health and safety hazards to first responders and volunteers during an emergency, as well as training; and
• adequacy of details about near shore long-term cleanup planning and procedures; or optimal cleanup measures for different timeframes and different types of location or products.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB Condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

2.1.4 City of Vancouver

The City of Vancouver formally participated in the NEB regulatory process as an Intervenor. The City submitted Information Requests, numerous motions and written final argument in the NEB’s process. Appendix T provides a complete list of all of the documents filed on the NEB record by the City of Vancouver.

The City of Vancouver has concerns related to:

• Potential impacts of an oil spill within the Lower Fraser River Watershed on the environment, wildlife, fisheries, residents and businesses;
• risk and impacts associated with an oil spill in Burrard Inlet on the environment, fish, birds and other wildlife habitat, as well as businesses and residents;
• studies and risk assessment conducted regarding the impacts of an oil spill in Burrard Inlet or the Fraser River;
• its belief Trans Mountain has failed to identify and assess the risk posed by, or demonstrate preparedness to mitigate and respond to, the range of hazards that could impact the pipeline or terminal operations;
• its belief the Det Norske Veritas (DNV) risk assessment entirely omitted, without explanation, study Segment 2 (that part of Burrard Inlet situated between First and Second narrows) from the list of oil spill locations that were even considered by DNV for spill modelling and risk assessment;
• substantial increase in pipeline operating emissions and marine operating emissions and it questions an additional 590,000 barrels of oil per day could result in reduced emissions;
• its belief the Project impact on global GHG emissions will significantly increase the overall need for and costs of Vancouver’s Climate Change Adaptation Strategy;
• impacts of multiple hazards such as, earthquake, flooding, extreme weather, wildlife, transportation accidents including marine transportation, and chemical and explosive hazards on TMEP’s, as well as contractor’s response capacity during a pipeline incident;
• control point plans and the capacity of Trans Mountain to respond to a pipeline rupture impacting the Fraser River or other water bodies;

• information regarding TMEP’s ability to adequately respond to pipeline incidents due to a seismic event;

• potential gaps in data collection and information sharing between Unified Command members and the public;

• information regarding ERPs for a marine spill;

• response plans for or compensation process for damages from tankers caused by fire or explosion;

• assumption by Trans Mountain marine firefighting capacity suitable for dealing with a fire on a WMT tanker exists in Vancouver Harbour and is provided by the City of Vancouver;

• marine firefighting capabilities in marine communities;

• reliance on vessel captains to report a spill or incident and immediately initiate response by activating the agreement with WCMRC;

• potential financial burden to the city, its residents and businesses, including tourism, as a result of a spill;

• impact of a spill on the city’s “brand”;

• compensation for potential economic impacts of a spill;

• impacts to city’s infrastructure as a result of a spill;

• potential risks to community first responders during a spill including air pollutants and injury; and

• potential health impacts of a spill including air pollutants.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance.

2.1.5 District of North Vancouver

The District of North Vancouver formally participated in the NEB regulatory process as an Intervenor. The District submitted Information Requests, motions and written final argument in the NEB’s process. Appendix T provides a complete list of all of the documents filed on the NEB record by the District of North Vancouver.

The District of North Vancouver has concerns related to:

• sufficient boom or an adequate emergency response to prevent oil from reaching the Maplewood mudflats, an important bird conservation area;

• impacts of a spill on wildlife, including dedicated resources, anticipated significance and greatly increased if the event occurred during seasonal periods with high population levels;

• increase in marine activity, as well as the potential for spill events that will negatively impact District park environments and public usage as well as parks-related businesses;
• financial compensation for the District’s economic losses arising from impacts to its parks and park users in the event of a spill in Burrard Inlet;
• provision of additional air quality monitoring for the District and development of a real-time plan to inform evacuation decisions;
• the behaviour and treatment of dilbit in the marine environment in the event of a spill;
• the speed of response in a pipeline incident; and
• development of a real-time plan to inform evacuation decisions.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

2.1.6 District of West Vancouver

The District of West Vancouver formally participated in the NEB regulatory process as an Intervenor. The District submitted Information Requests, motions and written final argument in the NEB’s process. Appendix T provides a complete list of all of the documents filed on the NEB record by the District of West Vancouver.

The District of West Vancouver has concerns related to:

• potential air quality impacts of the Project on the district and its residents, from additional marine shipping;
• potential increase Green House Gas Emissions as a result of the Project and the effects on climate change;
• shore power in at least one berth at WMT for tankers that have the capacity to utilize it;
• impacts of light and noise pollution to Burrard Inlet communities including West Vancouver due to increased marine traffic;
• the risk of a spill in Burrard Inlet or a spill in Vancouver Harbour or English Bay;
• its belief TMEP has not considered an appropriate “worst-case spill” at WMT;
• information regarding the cumulative impacts of smaller spills in Vancouver Harbour or English Bay;
• an adequate assessment of the potential impacts of a spill on Burrard Inlet, including spill modelling and trajectory, the range of weather and marine conditions that could happen during a spill event, and the health impacts;
• an adequate assessment of the ecological risks of a marine spill;
• impacts of a spill on wildlife and species at risk such as salmonids, marine mammals, Killer whales, and marine birds;
• West Vancouver supports evidence from Environment and Climate Change Canada to “develop “a marine bird baseline monitoring plan to describe species composition and their spatial and temporal abundance patterns that can be used to identify high consequence areas/habitats in the event of an oil spill;
• Its belief vessel traffic increase will be a major and significant contributor to cumulative oceanic noise levels that can harm whales and other wildlife through acoustic disturbance effects;

• an adequate assessment of human health risks, specifically the impacts of air quality and the health effects of air emissions, as a result of a spill;

• TMEP’s ERP adequacy in addressing the inherent risks to local communities as a result of a spill in Burrard Inlet, diluted bitumen recovery along local shorelines, recovery of submerged or sunken bitumen, oiled wildlife response, roles of local governments in responding to a spill, timelines for response, and response capacity for a marine spill;

• increase in tanker traffic which will result in a higher risk of a spill, particularly in Vancouver Harbour;

• potential spills resulting from shipping or loading incidents at WMT potential to contribute to cumulative effects on water quality in Burrard Inlet;

• the effects of a spill of diluted bitumen potential to increase negative impacts to species within a system that is already stressed due to issues with water quality, bacterial levels, or low dissolved oxygen;

• economic impacts on local government and municipalities as a result of a spill;

• economic impacts to ocean-based economy as a result of a spill; and

• municipal compensation for costs associated with a spill do not cover full government and health authority costs.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

2.1.7 Metro Vancouver

Metro Vancouver formally participated in the NEB regulatory process as an Intervenor and submitted Information Requests, motions and written final argument in the NEB’s process. As described in Section 1.2.4.1 of this Report, a TWG has been formed with Metro Vancouver, meetings commencing in February 2017. Metro Vancouver also coordinated a group called the Lower Fraser Valley Air Quality Coordinating Committee (LFVAQCC). The LFVAQCC consists of federal, provincial and local government authorities with interests and regulatory oversight of air quality issues in the region. Appendix T provides a complete list of all of the documents filed on the NEB record by Metro Vancouver.

Metro Vancouver has concerns related to:

• impacts of a spill in Burrard Inlet;

• induced economic benefits from the Project are considered; however, belief induced impacts (costs) should be considered including induced GHG emissions and impacts from associated economic activities;

• design of the pipeline adequacy including seismic hazards;

• environmental impacts on air, land and water, due to emissions from pipeline and marine terminal facility operations, marine shipping activities and accidents or malfunctions;

• contingency planning in the event of a spill or accident during construction and / or operation of the Project;
impacts to wildlife as a result of increased tanker traffic in Burrard Inlet;
impacts to sensitive ecosystems, designated conservation areas, parks, fish-bearing waterways and habitat that supports Species at Risk, public recreation, tourism and fisheries;
increase of Green House Gas Emissions as a result of the Project;
pipeline and / or spill Impacts on liquid waste infrastructure;
impacts of construction to Coquitlam Landfill;
construction impacts to infrastructure and services including pipeline and Tanker impacts on existing water infrastructure; and
current TMEP construction schedule may impact concurrent solid waste construction projects in Metro Vancouver.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

2.1.7.1 Village of Belcarra
The Village of Belcarra participated in the NEB regulatory process as an Intervenor. Through numerous meetings and discussions, exchanges of letters between fall 2012 and spring 2014, and exchanges of Information Request documents and filings, they have expressed various concerns related to nuisance effects of increased vessel traffic, emergency management, and potential for environmental legacy for Burrard Inlet from the Project.

Belcarra has concerns related to:

- WMT tanker noise and light impact on surrounding residents;
- emergency response aspects including spill containment boom technology, location specific oil spill response plans, pre-staged equipment, response time;
- net environmental benefits for Burrard Inlet as a result of TMEP;
- safety concerns for small vessel craft sharing waterways with more Project-related tankers.

In Appendix U, Trans Mountain provides a status updated regarding any outstanding issues with Belcarra.

2.2 Federal Government

2.2.1.1 Health Canada
The Government of Canada formally participated in the NEB regulatory process as an Intervenor. In addition, Heath Canada was a registered Commenter in the NEB process and filed a Letter of Comment on August 11, 2015 (Filing ID A4S0Z6). Trans Mountain also met with representatives of Health Canada in January 2013.

The Letter of Comment submitted to the NEB by Health Canada identified the following issues and concerns:

- dredging and impacts to water quality;
- health impacts of moving variety of products:
  - Impacts of a spill on human health and quality of life in coastal areas
  - Human health impacts related to spilled bitumen and dilbit);
- air quality during construction being assessed (See 1.D.3: Emissions from terminal construction);
consider measures that can be implemented quickly and effectively to limit human exposures both in the short term immediately following a spill incident and in the long term such as that risks to human health are minimized;

- consider the possible lag times for contaminants to appear in the country foods, drinking water sources and other environmental media when developing chemical monitoring plans;

- identify the proximity of human receptors (permanent or seasonal residents) to a pipeline right-of-way as a key criterion for determining response times and actions, including Aboriginal communities who depend on the area for country foods and drinking water;

- ensure communication plans and health advisories are developed in consultation with communities and health authorities;

- characterization of health risks for any increases in NO2, ozone and PM 2.5 should acknowledge health risks exist below ambient air quality guideline levels;

- air quality predictions and human health risk assessment should be considered interim results pending completion of engineering design; and,

- citing a study commissioned by Metro Vancouver, Health Canada is of the opinion the magnitude of air quality impacts of spills into the marine environment, may be greater than what was presented in TMEP’s HHRA.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.

2.3 Other Stakeholders with Participation in the NEB Process

2.3.1.1 Pacific Pilotage Authority

The Pacific Pilotage Authority (PPA) formally participated in the NEB regulatory process as a Commenter, having submitted a Letter of Comment on June 18, 2015 (Filing ID A4Q7T1). The PPA has been engaged frequently as an integral member of the maritime community responsible for the safe navigation of vessels calling at WMT. Part of this includes an interest to educate other marine waterway users about ways to stay save in the shared waters with deep draft vessels. Trans Mountain has also sponsored training for pilots to disembark vessels by helicopter in order for pilotage to be extended to Race Rocks; and not at Victoria.

In Appendix U, Trans Mountain provides a status update regarding these issues and how they will be addressed either through NEB condition or TMEP commitment compliance, or through Trans Mountain’s ongoing engagement and issue resolution strategies.
Technical Report TR-20

Vancouver Fraser Port Authority Development Permit Application

Consultation Summary – Westridge Marine Terminal

Appendix A
Trans Mountain Pipeline ULC  
Trans Mountain Expansion Project  
Responses to Information Request from  
Port Metro Vancouver

Reference:

On June 3, 2015, Port Metro Vancouver (PMV) requested Trans Mountain Pipeline ULC (Trans Mountain) (Lesley Matthews and Bikram Kanjilal) provide PMV with an updated summary of all marine-related consultation for the Trans Mountain Expansion Project (TMEP or the Project).

Request:

A summary of all consultation related to marine issues raised by stakeholders for TMEP. Trans Mountain agreed to provide a summary that includes all consultation on new marine matters in the jurisdiction of PMV that have occurred since the last consultation summary submitted to PMV in January 2015 (which covered the reporting period from May 2012 to June 30, 2014).

Response:

This updated summary of all marine-related consultation for TMEP includes all consultation on marine matters in the jurisdiction of PMV that have occurred from August 1, 2014 to June 30, 2015. Note this also includes discussions of relevance to PMV jurisdiction along the Fraser River.

This is an update to the consultation summary provided by Trans Mountain to PMV on January 5, 2015, also appended to Consultation Update No. 3 (National Energy Board [NEB] Filing ID A4H1W5).

A summary of the complete TMEP stakeholder engagement program is provided in the following documents:

- **Volume 3** (NEB Filing ID A55987) of the Facilities Application, filed with the NEB on December 16, 2013, reported on Trans Mountain’s stakeholder engagement activities for the period of May 2012 through to July 31, 2013; Aboriginal engagement activities for the period of May 2012 through to September 30, 2013; and Landowner Relations for the period of April 2012 through to July 31, 2013.

- **Consultation Update No. 1 and Errata** (NEB Filing ID A3Z8E6), filed with the NEB on March 20, 2014, reported Trans Mountain’s ongoing engagement and communications activities with Aboriginal groups, landowners and stakeholders conducted during August 1 to December 31, 2013.

- **Consultation Update No. 2** (NEB Filing ID A62087 and A62088), filed with the NEB on August 1, 2014, reported on Trans Mountain’s ongoing engagement and communications activities with Aboriginal groups, landowners and stakeholders conducted during January 1 to April 30, 2014.

- **Consultation Update No. 3** (NEB Filing ID A4H1W2 through A4H1W8), filed with the NEB on February 12, 2015, reported on ongoing engagement and communications activities with Aboriginal groups, landowners and stakeholders conducted during May 1 to December 31, 2014.

- **Consultation Update No. 4** (NEB Filing ID A4S7G2 through A4S7G7), filed with the NEB on August 20, 2015, reported on ongoing engagement and communications activities with Aboriginal groups, landowners and stakeholders conducted during January 1 to June 30, 2015.

As with the previous reporting period, this summary for PMV does not include the engagement activities or outcomes of Aboriginal engagement, landowner negotiations or the engineering led discussions of Technical Working Groups with individual municipalities and regional districts. Aboriginal engagement summary logs are submitted to PMV directly by the Trans Mountain Aboriginal Engagement Team.
Trans Mountain Pipeline ULC
Trans Mountain Expansion Project (TMEP)
Responses to Information Request from
Port Metro Vancouver (PMV)
This is a list of the abbreviations and acronyms used in this response.

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>BBOT</td>
<td>Burnaby Board of Trade</td>
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<tr>
<td>BC</td>
<td>British Columbia</td>
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<tr>
<td>BC EAO</td>
<td>BC Environment Assessment Office</td>
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<td>British Columbia Institute of Technology</td>
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<td>BC Coast Pilots Association</td>
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<td>BSC</td>
<td>Bird Studies Canada</td>
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<tr>
<td>BTEX</td>
<td>Benzene, toluene, ethyl benzene and xylene</td>
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<td>CAPP</td>
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<td>CCG</td>
<td>Canada Coast Guard</td>
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<td>CILTNA</td>
<td>Chartered Institute of Logistics and Transportation of North America</td>
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<td>ECHO</td>
<td>Enhancing Cetacean and Habitat Observation program</td>
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<td>Emergency Response Plan</td>
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<td>Environment and Socio-Economic Assessment</td>
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<td>Exxon Valdez Oil Spill</td>
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<td>Fraser Valley Regional District</td>
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<td>Incident Command System</td>
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<td>Marine Liability Act</td>
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<td>Meaning</td>
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1.0 MARINE ENGAGEMENT OVERVIEW – AUGUST 1, 2014 TO JUNE 30, 2015

Trans Mountain is committed to open, respectful, transparent and collaborative interactions with landowners, residents and stakeholders. Trans Mountain’s corporate responsibility and regulatory obligation is to first minimize any potential impacts or damages to landowners, local businesses and the community including recreational areas to the extent practical by using and adapting responsive construction and operations practices; and second, provide mitigation to reverse or treat any remaining impacts.

Trans Mountain continues to expand its engagement and communications activities as needs require. Always responsive to the interests and concerns of stakeholders, the Stakeholder Engagement and Communications team continues to use various traditional and new engagement and communications tactics to ensure stakeholders have an opportunity to provide their feedback in forums that are most conducive to the stakeholder.

The following provides a highlight of marine engagement activities completed during the reporting period. During this reporting period, Trans Mountain continued to provide accurate and timely information, as well as gathering stakeholder feedback through a series of ongoing discussions, Community Conversations and Notifications. A more detailed consultation summary of Trans Mountain’s marine-related activities are described in Appendix A. New interests and concerns received during this reporting period, and responses to those interests and concerns, are summarized in Table 1.5-1 of this report. The complete list of common concerns and responses is available in Table B-1 of Appendix B.

Engagement activities between August 1, 2014 and June 30, 2015 are described in the remainder of Section 1.0.

1.1 Community

1.1.1 Westridge Neighbours

Since August 1, 2014, Trans Mountain has emailed, met or spoke with representatives of the Westridge community in Burnaby, British Columbia (BC) to share updates about the Project and to seek their input on issues of concern going forward. During these conversations, the residents most often raised concerns about the routing of the delivery lines from Burnaby Terminal to Westridge Marine Terminal, noise from existing operations (i.e., noise), and what impacts they could experience from the proposed expansion of Westridge Marine Terminal.

In January 2015, Trans Mountain mailed a letter to approximately 2,627 residents of Westridge and Burnaby Mountain neighbourhoods inviting neighbours to provide feedback on how they would like to be engaged in the Project going forward. A copy of the letter and the survey, as well as other correspondence with Westridge neighbours are contained in Appendix C. Since that time, Trans Mountain continues to correspond with these neighbours in an effort to keep them updated on the progress of the regulatory process and to advise of Trans Mountain plans to engage and communicate on construction activities in Q4 of 2015 and Q1 and Q2 of 2016.

1.1.2 Neighbourhood Information Sessions

Trans Mountain held neighbourhood information sessions to provide stakeholders in neighbourhoods near the proposed pipeline corridor with an update on the proposed Project and share information on environment and reclamation, and construction impacts. A neighbourhood information session was held for Trans Mountain’s neighbours in Burnaby/Coquitlam on June 3, 2015 where Project representatives of the marine development team were available to review marine aspects of the Project, including the expansion of Westridge Marine Terminal and the anticipated increase in vessel traffic calling at the terminal.
1.1.3 **Council and Staff, City of Port Moody, British Columbia**

On January 16, 2015, Trans Mountain provided a letter to the Mayor and Council of the City of Port Moody addressing concerns raised at a January 6, 2015 City of Port Moody Committee of the Whole meeting and in the City’s Round 2 Intervenor Information Requests. Trans Mountain advised that it remains committed to open and transparent dialogue with local governments, communities and stakeholders who are potentially impacted by the Project. A copy of the letter is provided in Appendix D. Trans Mountain met again with the Mayor and Chief Administrative Officer (CAO) of Port Moody on April 8, 2015 to provide a general update.

1.1.4 **Mayor of Belcarra, British Columbia**

Mayor met with Project team members in person and by phone in follow-up to letters issued by the Mayor December 2014 and February 2015. The Mayor expressed concern over response time for marine oil spills, particularly in the aftermath of the Marathassa bunker fuel spill in English Bay in April 2015 (unrelated to Trans Mountain). The Mayor renewed his call for leading boom technologies and pre-planning for spill response based on geographically sensitive areas. The Mayor also sought an update on the Westridge Marine Terminal Fisheries Offset Workshop and how stakeholder input would be used.

1.1.5 **Mayor of White Rock, British Columbia**

On February 19, 2015, Trans Mountain met with the Mayor of White Rock, BC who expressed his support for the Project and expressed concerns about the increase in crude oil rail cars travelling through his community. He asked questions about tanker safety and proposed increase in vessel traffic. Information was shared about the TMEP recommended changes to the tanker safety regime.

1.1.6 **City of Burnaby, British Columbia**

Trans Mountain has documented multiple attempts to engage with the City of Burnaby with very little success at securing meetings. Feedback from any interaction with City of Burnaby staff and municipal officials is not consistent; however, the City has thoroughly engaged in the NEB regulatory review, submitting among the top number of Information Requests (IRs) received from local municipal Intervenors. The City identified in its evidence submitted to the NEB on May 27, 2015 that it is willing to undertake Preliminary Plan Approval (PPA) reviews for the Project. Trans Mountain intends to submit PPA applications for the elements of the terminal expansions that are within the City. Even though outside the reporting period, Trans Mountain submitted a letter to the City of Burnaby Planning Department to request a PPA meeting. This letter can be found in Appendix E. A meeting was held with Burnaby on August 5, 2015.

1.1.7 **Lower Mainland Local Government Association**

Trans Mountain participated in the annual Lower Mainland Local Government Association (LMLGA) conference held from May 6 to 8, 2015 in Harrison Hot Springs, BC. Trans Mountain has been a long time sponsor of the LMLGA conference and hosts a booth annually. Throughout the conference, Trans Mountain had informal conversations with various elected officials and other attendees which are reflected in the consultation summary. Conversations with attendees are recorded individually in the Consultation Summary found in Appendix A.

1.1.8 **Union of BC Municipalities Conference Held Between September 24 to 26, 2015**

Trans Mountain attended the 2014 Union of BC Municipalities (UBCM) conference in Whistler, BC from September 24 to 26, 2014. The conference is consistently well attended by municipal politicians in BC. The conference provided many opportunities to engage in discussions about the Project. Conversations and meetings with attendees are recorded individually in the Consultation Summary found in Appendix A. A number of energy-related resolutions were debated at UBCM, namely Resolution No. B-82 Comprehensive Pipeline & Energy Transport Plan opposing TMEP which was put forward by the City of
Burnaby (can be found in Appendix F). This resolution was not endorsed, unlike the 2012 UBCM resolution that passed (A8) opposing an increase in oil tanker traffic.

Late resolutions related to TMEP were also debated at the end of the conference (see Appendix G) which include: a request that BC Environmental Assessment Office (EAO) undertake its own environmental assessment of TMEP (LR2), that TMEP be compelled to share emergency response information for submerged oil such as dilbit (LR3) and a motion to reinstate oral cross examination back into the NEB process (LR1). All three late resolutions passed, but Trans Mountain is encouraged to see in stead of opposition, the resolutions all point the way to requirements and/or conditions for BC municipalities to enable TMEP to proceed.

1.1.9 Notification of Upcoming Engagement Activities

On May 25 and 26, 2015, Trans Mountain provided locally elected officials and key staff with an update of upcoming engagement activities in each respective riding. Environmental Protection Plan (EPP) workshops related to the Fraser River Crossing were among the updates provided. Email notifications were sent to the affected constituencies; a sample copy of which can be found in Appendix H.

- MP, (Surrey) Fleetwood-Port Kells.
- MP, Port Moody-Westwood-Port Coquitlam.
- BC MLA, Burnaby North.
- BC MLA, Surrey Tynehead.
- City of Burnaby staff.
- City of Surrey staff.
- Metro Vancouver Regional District staff.

1.1.10 Notification of Trans Mountain’s Response to Information Request Round 2

On February 18, 2015, Trans Mountain filed its response to Intervenor Information Request Round 2. Trans Mountain subsequently notified local governments that had filed Information Requests in Round 2, of the filing and provided an overview of the commonly asked questions that were outside the scope of the NEB’s review.

The letters also emphasized Trans Mountain’s willingness to engage in parallel with the NEB review process in order to most effectively address the common questions raised by Intervenors. Copies of each letter are provided in Appendix I and were sent to the following municipalities on February 19, 2015:

- City of Abbotsford
- City of Burnaby
- City of Coquitlam
- City of Kamloops
- City of New Westminster
- City of North Vancouver
- City of Port Moody
- City of Richmond
- City of Surrey
- City of Vancouver
- City of Victoria
- District of North Vancouver
- District of West Vancouver
- Fraser Valley Regional District
- Metro Vancouver Regional District
- Township of Langley
1.1.11  **Response to Declaration of Non-Confidence**

On April 16 and 17, 2015, Trans Mountain responded to seven BC Mayors who were signatories of a joint declaration of non-confidence in the NEB process. The declaration was released by the City of Vancouver on March 31, 2015 and was endorsed by Mayors of the City of Vancouver, City of Burnaby, City of North Vancouver, District of Squamish, Bowen Island Municipality, City of New Westminster and the City of Victoria.

In a written response to each Mayor issued April 27, 2015, Trans Mountain noted that the NEB process includes approximately 17 months of review and takes into consideration its Application, several rounds of questions from Intervenors and the NEB, one round of comments, as well as written evidence and oral evidence from Intervenors. Trans Mountain further noted that the NEB process includes some 400 Intervenors and 1,200 Commenters, local governments and many communities that are participating in the regulatory process in a formal manner. Copies of each letter are provided in Appendix J.

1.1.12  **City of Vancouver**

On March 4, 2015, Trans Mountain responded to a letter it had received from the City of Vancouver dated February 23, 2015. Trans Mountain expressed its disappointment with the City of Vancouver’s refusal to engage further about the Project. Trans Mountain’s response letter corrected information provided in the City of Vancouver letter including:

- ongoing engagement both within and outside of the regulatory process;
- NEB Draft Conditions for the Project related to emergency response; and
- filing of redacted copy of the existing Emergency Response Plan (ERP).

A copy of Trans Mountain’s response letter sent to the City of Vancouver is included in Appendix K.

1.1.13  **Employment and Procurement Registry**

Trans Mountain is committed to maximizing opportunities for Aboriginal and local people to work on the construction of the Project. This includes marine-related products and services such as construction of the expanded marine terminal (e.g., dock work, marine diving and boats). Trans Mountain is working hard to identify individuals who are interested in working on the Project should it receive federal approval to proceed. Interested individuals are encouraged to identify skills and contact information in order to create a database of applicants available to work with contractors and employees for various job opportunities on the Project. As of June 30, 2015, the procurement registry had captured 1,121 individuals and businesses interested in providing good and/or services to the Project.

1.1.14  **Burnaby Board of Trade**

1.1.14.1  **Business Showcase**

On May 21, 2015, Trans Mountain participated in a Business Showcase at the Delta Burnaby Hotel and Conference Centre that was open to the business community and general public. At the event, Trans Mountain spoke with many of the more than 500 attendees to provide information about the Project and share information about procurement and job opportunities. Marine opportunities were of interest, as were concerns expressed to Trans Mountain related to emergency response and environmental effects of oil spills such as the spill into Burrard Inlet in 2007.

1.1.14.2  **Burnaby Board of Trade Review of Trans Mountain**

Burnaby Board of Trade (BBOT) conducted a review of TMEP which was released in January 2015 and can be found as part of NEB Filing ID A4J1A8. The review acknowledges the need for greater access to international markets for Canadian oil products and supports responsible resource development, but also questions the current expansion plans as proposed, citing concerns with respect to the impact of seismic
activity on the pipeline, as well as the risk to Burnaby as the Project terminus – and whether the economic benefits outweigh those concerns. The review also cites the lack of a co-operative relationship between the Project proponents and key local stakeholders as an area of concern. The review addresses a large number of economic considerations that have been hot topics in the pipeline conversation, including market access, job creation, and tax revenues. It balances that discussion with consideration of pipeline safety and routing, shipping safety, spill response, and liability and responsibility.

1.2 Environment

1.2.1 Lower Fraser Valley Air Quality Coordinating Committee

Trans Mountain met with Metro Vancouver, Environment Canada and other stakeholders via the Lower Fraser Valley Air Quality Coordinating Committee (LFVAQCC) on September 25, 2014 and on November 13, 2014 to discuss air quality issues raised by them during the NEB process. Marine-related emissions were of most interest to the LFVAQCC. The meetings provided a good opportunity to review Trans Mountain air quality analyses in detail with regulatory bodies across many federal, provincial and regional jurisdictions. Among the over 30 action items for Trans Mountain as a result of these meetings – Trans Mountain agreed to consider an update to the photochemical modelling (also referred to as Community Multi-scale Air Quality [CMAQ] Model) incorporating the Marine Emissions Inventory Tool (MEIT) calculated marine emissions as developed by Environment Canada. As described in correspondence from Trans Mountain to Metro Vancouver (March 26 and May 26, 2015; see Appendix L), Trans Mountain agreed to collaborate with LFVAQCC on a work plan and has since provided them with draft work plan for comment. Metro Vancouver, on behalf of the LFVAQCC, declined to participate.

1.2.2 Marine Engagement - Underwater Noise and Marine Mammals

Trans Mountain has been conducting an active engagement program with marine communities and Aboriginal groups in southwestern BC and southern Vancouver Island for over two years. Trans Mountain has identified underwater noise and potential effects on marine mammals as a common concern related to the marine shipping sector. This is an issue not specific to the Project, but rather a shared concern across all marine development proposed to take place in this coastal area of BC.

Since Trans Mountain filed its comment to the Fisheries and Oceans Canada (DFO) Action Plan for the recovery of the Southern Resident Killer Whale in April 2014, the Project team has participated in several industry-led discussions about multi-party, collaborative measures to proactively attempt to mitigate the impacts of underwater noise on marine mammals. Trans Mountain is not leading these discussions, but rather helping to inform them by sharing details of the company’s marine operations and participating in the discussions that will evolve new best practices in marine shipping.

1.2.3 Port Metro Vancouver, British Columbia

On January 9 and 26, 2015, Trans Mountain met with PMV regarding the Enhancing Cetacean and Habitat Observation (ECHO) Program.

The purpose of the ECHO Program is to better understand and manage the impact of shipping activities on whales throughout the southern coast of BC. The ECHO Program is a PMV-led initiative which has sought early input and advice from scientists, maritime industries, conservation and environmental groups, First Nations individuals and government agencies to help the ECHO Program focus efforts and set goals and objectives.

PMV has provided initial funding for the ECHO Program and is exploring opportunities for additional funding from government and industry. Trans Mountain acknowledges and supports PMV’s vision to be recognized as a world class gateway by efficiently and sustainably connecting Canada with the global economy. Although out of this reporting period, Trans Mountain confirmed in August 2015 it is providing active financial support to the ECHO Program for its research initiatives, and upon completion of those, intends to include the results and recommendations as part of its Marine Mammal Protection Program. For more information on support of the ECHO Program, see Section 55.5 – Marine Mammals, Mitigation
Measures of Trans Mountain’s reply evidence filed with the NEB on August 20, 2015 NEB Filing ID A4S7F0.

1.2.4 Ocean Networks Canada

On January 15, 2015, Trans Mountain met with Ocean Networks Canada (ONC) to review progress in marine observation technology for the Salish Sea. ONC also provided updates on new technologies for the study of sea state surface currents, marine mammal traffic and other factors in play to establish environmental baseline information in the Salish Sea.

1.2.5 Bird Studies Canada and Pacific Wildlife Foundation

In 2014, Trans Mountain engaged with Bird Studies Canada (BSC) to support a mapping study of marine birds in Burrard Inlet. PMV matched Trans Mountain’s financial support for the mapping study, the results of which are to be made publicly available by BSC. Survey work to inform the study was completed by the Pacific Wildlife Foundation (PWLF); whereas BSC will complete the mapping portion by November 2015. In an effort to build on that work, on June 12, 2015 Trans Mountain kicked off a meeting with a BSC representative to review their current activities in marine bird surveys on BC’s South Coast. Trans Mountain conveyed stakeholder and regulator interest in addressing some of the gaps of knowledge in marine bird activity. BSC shared a number of initiatives that are actively trying to address some of the same interests. On June 25, 2015, Trans Mountain also followed up with the president of PWLF to further discuss marine bird monitoring initiatives they would like to continue with, such as the BC Marine Bird Atlas. Discussions with these organizations and other stakeholders will continue in 2015 in an effort to address Trans Mountain’s interest in more marine bird monitoring.

1.2.6 Wilderness Tourism Association of British Columbia

On April 15, 2015, the Wilderness Tourism Association of BC (WTABC) submitted its Letter of Comment (NEB Filing ID A4K5V3) to the NEB regarding the Project. Although outside the reporting period for this Update, on August 7, 2015 Trans Mountain provided WTABC with written clarification regarding statements made by WTABC in its Letter of Comment. A copy of Trans Mountain’s response is included in Appendix M.

1.2.7 Green Marine Conference and West Coast Advisory Committee

1.2.7.1 Green Tech

Trans Mountain attended the Green Marine Green Tech Conference held in Seattle, Washington from May 27 to 29, 2015. As part of the conference delegate package, Trans Mountain provided attendees with a copy of its Westridge Marine Terminal Brochure, a copy of which is contained in Appendix N. Key topics on the conference agenda were underwater noise and air quality in maritime ports. Green Marine continues to grow its membership in North America. The conference location (Seattle, WA) provided good opportunities to meet with many US ports, terminals and ship operators, and to understand how other marine operations in North America are dealing with common environmental concerns from maritime shipping. Green Marine is a voluntary program that encourages leadership and best practice. The Conference provided many examples of leaders in the shipping sectors and opportunities to connect with them in a supportive setting.

1.2.7.2 West Coast Advisory Committee

Regional input is a core aspect of the Green Marine Program. Trans Mountain is a member of the Green Marine West Coast Advisory Committee (WCAC) which is chaired by the Prince Rupert Port Authority; bringing together industry stakeholders, legislators and environmental groups to provide input and advice on different aspects of the program’s development. The multi-stakeholder nature of the committee enables the WCAC to put forward performance criteria relevant to the transportation sector on the West Coast, while addressing real environmental issues through concrete (measurable) actions undertaken by participating companies. In addition to the WCAC, there are two other advisory committees representing the St. Lawrence and the Great Lakes regions.
1.2.7.3 Underwater Noise Working Group

Kinder Morgan Canada is part of the Green Marine working group recently chosen by Transport Canada to “provide insight on underwater noise generated by shipping and its effects on marine life, along with potential solutions.” The committee has been working on the development of a new performance measure with criteria for mitigation of underwater noise effects of commercial shipping activity on marine mammals. It is expected the committee will provide Green Marine with draft performance indicator by Q1 2016. Subject to approval of the performance indicator, the first year of implementation by member companies will be voluntary. On July 27, 2015 Transport Canada announced it was contracting Green Marine to provide insight on underwater noise generated by shipping and its effects on marine life, along with potential solutions. As a member of the working group, Trans Mountain will continue to share information about its operations and contribute to collaborative discussions on solutions to mitigate and/or avoid impacts of underwater noise. More information can be found at http://www.green-marine.org/wp-content/uploads/2015/07/GM_PR_TCNoise_FINAL.pdf

1.3 Safety and Emergency Management

1.3.1 Nautical Institute of British Columbia

At the request of conference organizers, Trans Mountain made two presentations at the Nautical Institute in Victoria, BC on May 7, 2015. The first presentation focused on quality assurance and provided information on preventative measures proposed, a review of spill response enhancement proposals and a review of the quantitative risk assessment. The second presentation was part of a panel discussion on port infrastructure. Trans Mountain spoke to more than 100 attendees about the improvements proposed at the Westridge Marine Terminal, the ways in which the port activities will interact with the Project, and the procedures used by departing vessels within the harbour area. Copies of the presentations are available in Appendix O.

1.3.2 Emergency Preparedness and Business Continuity Conference

Trans Mountain hosted a booth at the Emergency Preparedness and Business Continuity Conference, held from November 18 to 20, 2014 at the Wall Centre, Vancouver, BC. The following marine issues were identified by attendees of the conference who frequented the booth or engaged with Trans Mountain at the sessions:

- emergency response;
- risks associated with tanker traffic due to increased movement; and
- expansion of Puget Sound line.

1.3.3 Emergency Management Stakeholder Workshops Part 2

Trans Mountain continued its Emergency Management Stakeholder Workshops (EMSW) Part 2, which were half-day sessions with emergency managers and first responders. The agenda typically covered current operations and a brief overview of the Project. Attendees were presented with highlights of the current Community Awareness Emergency Response (CAER) program and then were led through a discussion to explore their interests and concerns about expanding the system and some early indications of what they would like to see considered as part of an updated ERP for the expansion.

The purpose of the EMSW Part 2 was to meet stakeholder interest in reviewing desktop scenarios that explored a local sequence of events and local resource requirements in the event of an incident in a community. EMSW Part 2 also provided Trans Mountain the opportunity to use its Emergency Management Plans in practice, and to develop a working relationship with pertinent stakeholders involved in initial emergency response.

In Consultation Update No. 3 (NEB Filing ID A4H1W2 through A4H1W8), Trans Mountain noted the City of Surrey, City of Coquitlam (Tri-Cities) and the Town of Hinton asked to postpone the discussion until
spring 2015. The City of Burnaby declined the EMSW Part 2 invitation, as did Metro Vancouver. Representatives from the Regional District of Fraser Fort George were invited to attend the Village of Valemount Part 2 EMSW but were unable to travel due to winter road conditions. Trans Mountain was able to reschedule EMSW with Coquitlam (Tri-Cities) during this reporting period.

**1.3.4 City of Surrey Fire Department**

In December 2014, the City of Surrey declined an invitation for EMSW Part 2 and requested it be postponed until spring 2015.

On March 10, 2015, Trans Mountain extended a subsequent offer to meet with Surrey first responders in April or May 2015. Surrey requested to postpone this request due to its status as an Intervenor in the regulatory process. Trans Mountain explained the purpose and intent of workshop and reiterated that participating does not jeopardize or replace the City of Surrey’s position as an Intervenor. Surrey agreed to meet on May 12, 2015; however, requested the focus be solely on discussing the safety and security of the existing Trans Mountain Pipeline. A Kinder Morgan Canada (KMC) representative attended this meeting to address questions and concerns related to the existing system.

City of Surrey attended EMSW Part 2, Tri-Cities workshop on May 13, 2015 to listen to the discussion. Trans Mountain remains open to hosting a Part 2 EMSW with the City of Surrey and will continue to address questions and concerns. City of Surrey has invited Trans Mountain to attend a workshop they are sponsoring on September 15, 2015 regarding communication during pipeline emergencies.

**1.3.5 Part 2 EMSW, Tri-Cities**

On May 13, 2015 Trans Mountain hosted a Part 2 EMSW in the Tri-Cities area (Coquitlam, Port Moody and Port Coquitlam) with emergency first responders and planners. PMV and Western Canada Marine Response Corporation (WCMRC) also participated in the workshop to explain their roles in an emergency that could involve a spill into the Fraser River. A copy of the presentation is available in Appendix P.

**1.3.6 Fraser River Discovery Centre**

On May 12, 2015, Trans Mountain announced its investment in the Fraser River Discovery Centre’s Phase 1 of the Working River Project, a world-class, education-based exhibit that will promote a factual understanding of the crucial economic role of the Fraser River while considering its environmental and socio-cultural values. Details of the announcement are provided on Trans Mountain’s website at: http://www.transmountain.com/updates/working-river-project-moving-forward-with-an-investment-from-kinder-morgan-canada

**1.3.7 Chartered Institute of Logistics and Transportation in North America Luncheon held on June 23 2015**

Trans Mountain attended the Chartered Institute of Logistics and Transportation in North America (CILTNA) luncheon presentation of Captain Gordon Houston on results of Federal Tanker Safety Review Panel recommendations. Captain Houston explained in detail the recommendations made by the panel, and he answered questions from the audience. The recent spill by the Marathassa cargo vessel of bunker fuel into English Bay was a frequent topic raised. Spill response times, response capacity and resources are among the key areas of interest.

**1.3.8 Clean Pacific Spill Response Conference held on June 17 and 18, 2015**

New technologies and best practices in emergency response for marine spills were the key topics featured at the Clean Pacific spill response conference in Vancouver, put on every two years by the Pacific States and British Columbia Oil Spill Task Force. Trans Mountain was one of the sponsors of the conference which saw attendance from across North America. The conference provided a great opportunity to network with spill responders, academics, scientists, regulatory agencies from both US and Canada and other interest groups involved in the spill response industry.
1.4 New Engagement Activities

1.4.1 Telephone Town Halls – Marine Communities

New this reporting period, Trans Mountain hosted a series of Telephone Town Halls to provide the residents in BC communities with an opportunity to ask questions regarding the Project of the President of KMC, Mr. Ian Anderson.

A computerized auto dialer in targeted BC communities notified stakeholders of the upcoming Telephone Town Halls and provided them with information on how to participate. Telephone Town Halls were hosted for communities along our proposed pipeline corridor:

- **September 16, 2014**
  - Burnaby (6:30 pm)
  - Coquitlam - Langley (7:45 pm)

- **September 18, 2014**
  - Vancouver (6:30 pm)
  - Abbotsford - Chilliwack (7:45 pm)

- **December 3, 2014**
  - Burnaby (7:00 pm)

Telephone Town Hall participants were welcomed by a moderator and introduced to KMC President, Mr. Ian Anderson, who provided an initial update on the status of the Project. Trans Mountain answered as many questions from callers as time permitted. At the conclusion of each Telephone Town Hall, stakeholders were invited to remain on the line and leave a voice message with questions and or alternatively they could contact Trans Mountain directly at Info@transmountain.com or toll-free at 1-866-514-6700.

The first Telephone Town Hall, on September 16, 2015, covered the communities of Coquitlam, Surrey and Langley, with more than 2,000 stakeholders participating throughout the session. The second Telephone Town Hall covered the community of Burnaby with more than 5,000 stakeholders participating throughout the session.

Telephone Town Halls, on September 18, 2014, covered the communities of Vancouver with more than 11,000 participants and Abbotsford-Chilliwack with more than 1,000 participants. In total, more than 20,000 people participated over the course of the four sessions.

Following the demonstrations on Burnaby Mountain, an additional Telephone Town Hall was held on December 3, 2014 covering Burnaby with more than 5,000 participating.

Phone numbers called were land lines and those not on the Do Not Call List. In addition Trans Mountain promoted the December 3, 2014 telephone townhalls, through social media. Those without a land line and or on the Do Not Call List were encouraged to contact Trans Mountain to provide their phone number. These numbers were added to the auto dial list on the night of the telephone town hall. Any callers who did not get through to ask a question of Mr. Anderson during the town hall, were directed to leave a voicemail whereby Stakeholder Engagement and Communications team members returned approximately 200 voicemail messages within a two week period.

Recordings of each Telephone Town Hall are available on line through Trans Mountain’s SoundCloud channel, with both featured clips and full recordings.


1.4.2 Twitter Town Halls

Also new this reporting period, Trans Mountain hosted Twitter Town Halls via our Twitter channel, @transmtn, providing stakeholders with an additional venue to ask questions of Trans Mountain.

For the first event on October 14, 2014, Trans Mountain created a hashtag for use in all tweets, #AskTransMtn, and asked those posing questions to use that same hashtag. This made tweets searchable for anyone to see. During the one-hour Twitter Town Hall, there were approximately 2,100 tweets and retweets using the hashtag #AskTransMtn, resulting in the hashtag trending in BC and in Canada during the Twitter Town Hall. Trans Mountain was pleased to see such high engagement through the use of the hashtag.

Of the 188 questions received, Trans Mountain focused its responses during the Twitter Town Hall on those questions that were relevant to marine safety. Over a one-hour period Trans Mountain responded to 30 questions. Following the Twitter Town Hall, Trans Mountain responded to the remaining questions on twitter.

Trans Mountain also provided a blog post with the answers to eight questions raised by the Dogwood Initiative. Those same eight questions were the focus of a large percentage of tweets submitted to the Twitter Town Hall. Trans Mountain responded to those who had tweeted or retweeted the eight questions posed by the Dogwood Initiative by providing a link to the blog post. Table A-1 in Appendix A includes all of the questions tweeted by participants and answered by Trans Mountain as a result of its Twitter Town Hall.

1.4.3 Regulatory Engagement / Process

Between May 2014, and as of June 30, 2015, Trans Mountain responded to more than 17,000 questions through the regulatory process, approximately 20% of which were related to marine topics of interest. All information requests asked by the NEB and registered Intervenors are available on the NEB’s website at http://www.neb-one.gc.ca/pplctnflng/mjrpp/trnsmntnxpnsn/index-eng.html

1.5 New Marine Issues Identified – August 1, 2014 to June 30, 2015

Much like the first report, this marine consultation summary update is presented in multiple parts.

• Table 1.5-1 below provides a summary of Trans Mountain responses to only the new marine issues that have not yet been reported in previous consultation summaries.

• Appendix A provides a summary of consultation activities and marine issues raised by stakeholder groups. Responses include a cross-reference to the commonly raised issues identified in Table B.1 as applicable, and any commitment or follow-up actions TMEP has made to date.

• Table B.1 in Appendix B provides the complete list of common marine issues complied for all reporting periods since May 2012.
<table>
<thead>
<tr>
<th>Code</th>
<th>Interest/Issue/Concern</th>
<th>Trans Mountain Response</th>
</tr>
</thead>
</table>
| 1.0  | Environment - Marine Impacts                                                           | As acknowledged by DFO, recovery of at-risk populations is a complex and multi-faceted problem, and integrated multi-party solutions are required across the maritime industry to manage effects on marine mammal species. Trans Mountain remains strongly supportive of a collaborative regional approach to the development of mitigation options for reducing risks to marine mammals. Trans Mountain's engagement efforts to date have identified many stakeholders in the marine shipping industry who are aware of the potential impacts and interested in finding solutions to benefit local marine biodiversity. Trans Mountain is involved with two key initiatives:  
- As stated in PMV's evidence, the ECHO Program seeks to better understand and manage potential underwater noise effects on cetaceans (i.e., whales, porpoises and dolphins) resulting from commercial vessel activities throughout the southern coast of BC. Trans Mountain has entered into a multi-year funding agreement with PMV, wherein Trans Mountain would commit to contribute funding to the ECHO Program to support its research and mitigation development initiatives.  
- Westridge Marine Terminal is a member of Green Marine (green-marine.org), a voluntary environmental program where members commit to continuous improvement in the management of marine environmental impacts. Green Marine is actively facilitating underwater noise working group with shipping industry members from across Canada in an effort to drive new best practices and improve the shipping industry's ability to mitigate noise impacts to marine mammals. KMC is part of this Green Marine working group which has recently been chosen by Transport Canada to "provide insight on underwater noise generated by shipping and its effects on marine life, along with potential solutions." [http://www.green-marine.org/wp-content/uploads/2015/07/GM_PR_TCNoise_FINAL.pdf]


More information on Trans Mountain's involvement in the PMV ECHO Program can be found in response to NEB IR 6.06a (NEB Filing ID A4Q9U1).

3.0 Marine Tankers                                                                 | Marine Transportation is considered a safe and cost-efficient means of transporting oil products around the world. Tanker design, construction, maintenance and operating standards have evolved over many years and improvement is reflected in the very low number of oil spills from tankers, which statistic has trended significantly lower since introduction of double hull tankers and the phasing out of single hulls. Tankers are held to strict internationally recognized quality standards mandated by the International Maritime Organization and Canadian Shipping Act and verified by Class Societies.  

See Technical Report 8C-7 TERMPOL 3.9 – Ship Specifications (NEB Filing ID A3S4T2)

The International Tanker Owners Pollution Federation (ITOPF) [www.itopf.com]
TABLE 1.5-1  Cont’d

<table>
<thead>
<tr>
<th>Code</th>
<th>Interest/Issue/Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.B.9</td>
<td>Demarcation of shipping routes in Burrard Inlet</td>
</tr>
</tbody>
</table>

There is a long history of safe marine commercial activity within Burrard Inlet and similarly there is a long history of recreational vessel use in this area. All mariners are expected to adhere to established rules for ships and boats that ensure safety of all mariners. The safety regime in place today for both the existing tanker traffic, which includes traffic to the Westridge Marine Terminal, has been developed and continually improved since the terminal entered service in 1953. The regime is based on regulatory requirements, local experience and international best practices. It is comprehensive, well established, and has proven to be effective.

Recreational boating is very popular on the coast of BC, especially the south coast and there are a large number of licensed pleasure crafts and pleasure craft operators. The statistics from 1999 to 2012 indicates there are 375,143 vessels, and 418,357 operator cards, which may also include vessels that are no longer in use. There is potential for over 5,250 boats at moorage within English Bay and Burrard Inlet. However there is a seasonal pattern to the use of these vessels and on average recreation boats spend a considerable time at berth.

On average about 500 incidents are reported annually to Vancouver Marine Communications and Traffic Services (MCTS) and the majority of these incidents relate solely to recreational vessels. Transport Canada, Office of Boating Safety (OBS), is responsible for the development and implementation of pleasure craft regulations, standards, policies, enforcement and technical services pertaining to recreation boating. OBS provides regulatory training to enforcement agencies (e.g., RCMP, Conversation Officers, etc.); provides advice to enforcement officers; attend and/or lead regional enforcement working groups meetings; follow-up on close quarter situations or any incident upon request by the enforcement agencies on a case-by-case basis. The OBS also trains other stakeholders and partners in performing courtesy checks on safety equipment. Within the Port’s jurisdiction, PMV’s role regarding the management and monitoring of recreational vessels is limited to ensuring that navigation and environment are not being impeded or impacted. PMV does not monitor the movements of most pleasure craft, but if a boater is causing a navigational hazard, the PMV patrol boat will attend and address the issue. Marine units of the RCMP and Vancouver Police Department (VPD) enforce local laws pertaining to boating safety and other infractions like alcohol-related issues.

The most challenging part of a tanker’s sailing route from Westridge Marine Terminal is the start of its journey from the terminal, through the Second and First Narrows in the Vancouver harbour area. The movement of large ships (including tankers) is strictly regulated and there are speed limits as well as pilots on board and tethered tugs that ensure these vessels are moved through the harbour with a high degree of control. This ensures that the probability of collision or wake or propeller wash damage is mitigated.

Several recommendations are under review by the TERMPOL Review Committee that will, if accepted, further enhance safety of all mariners in the Central Harbour. This includes demarcation of a shipping route between the Second Narrows and Port Moody giving a wide berth to the expanded Westridge Marine Terminal. The dock complex itself will be provided with navigation marks and lights and the oil spill booms around the vessels will also be marked in a similar fashion. This will ensure that all marine users will be able to identify the area during day or night and keep clear.
<table>
<thead>
<tr>
<th>Code</th>
<th>Interest/Issue/Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.B.10</td>
<td>TMEP proposed enhancements to tanker safety regime</td>
</tr>
</tbody>
</table>

Trans Mountain has proposed additional measures that will further improve marine safety through accident prevention and reducing the consequences in the unlikely event one should occur. These recommendations can be found in Volume 8C as Technical Report TR 8C-12 TERMPOL 3.15 General Risk Analysis and Intended Methods of Reducing Risks (NEB Filing ID A3S5F4) and are expected to raise the level of care and safety in the study area to well above globally accepted shipping standards.

The TERMPOL Committee Report endorsed the TMEP proposed enhancements, key amongst which are:

- Enhanced tug escort of laden oil tankers requiring a tug to accompany the tanker throughout its entire passage to the open ocean will prevent accidents.
- A significantly enhanced spill response program implemented by WCMRC will reduce consequences. The enhanced program would more than double the area’s response capacity and more than halve the response times with a number of new bases to be located along the local shipping lanes.

The TERMPOL Review Process is a voluntary process whereby Trans Mountain conducts a prescribed set of studies, described in TERMPOL Review Process 2001 (TP743E), and submits these to a TERMPOL Review Committee chaired by Transport Canada and includes representatives of other federal agencies. The purpose of the review in this case is to assess the safety and risks associated with tanker movements to, from and around Westridge Marine Terminal resulting from the Project. The review includes consideration of:

- Ship design and operation
- Navigational and physical characteristics of the approaches to Westridge Marine Terminal
- Terminal design and infrastructure
- Risk and accident analysis along the transit route and at the terminal, and the related mitigating measures
- Pollution prevention program
- Contingency plans
- Terminal design and operations
- Risk and accident analysis along the transit route and at the terminal, and the related mitigating measures
- Navigation and physical characteristics of the approaches to Westridge Marine Terminal
- Terminal design and operations
- Risk and accident analysis along the transit route and at the terminal, and the related mitigating measures
- Pollution prevention program
- Contingency plans
- Terminal design and operations
- Risk and accident analysis along the transit route and at the terminal, and the related mitigating measures
- Navigation and physical characteristics of the approaches to Westridge Marine Terminal
- Terminal design and operations

The TERMPOL studies can be found in Volume 8C of the Facilities Application. The TERMPOL Review Committee report submitted to the NEB on December 11, 2014 can be found on the NEB website [link].

**PMV permit review of Westridge Marine Terminal expansion**

The Westridge Marine Terminal is located within PMV. Under the Canada Marine Act, PMV sets rules and regulations within its jurisdiction focused on maintaining the safe and efficient movement of marine traffic and cargo. PMV’s marine operation responsibilities include oversight on upgrade projects and permitting, as such PMV will conduct an environmental review of the proposed expansion for Westridge Marine Terminal following the NEB process.

See evidence filed by Port Metro Vancouver with the NEB as part of the TMEP hearing on May 26, 2015 (NEB Filing ID A4L6Q7).
TABLE 1.5-1  Cont’d

<table>
<thead>
<tr>
<th>Code</th>
<th>Interest/Issue/Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.I</td>
<td>Level of detail provided in IR responses</td>
</tr>
</tbody>
</table>

The NEB process has determined the level of detail provided in IR responses are not consistent with the requirements. The NEB has identified a very specific scope of issues they will evaluate for the facilities application; however, Trans Mountain made every effort to directly and thoroughly answer questions of Intervenors and the NEB. If questions were asked that were outside the NEB’s List of Issues, Trans Mountain acknowledged that in its responses but also attempted to provide the additional information. Trans Mountain has continued to engage with stakeholders in parallel with the NEB review process to provide stakeholders with opportunities to discuss issues of concern with Trans Mountain if they were not satisfied with the level of information provided through the NEB hearing.

The NEB’s draft conditions of approval related to emergency response require KMC to submit updated draft emergency response plans, including an emergency management program, to the NEB for consideration. The Application, Volume 7, Section 4.8 outlines the process to enhance KMC’s existing emergency management program as they relate to the Trans Mountain Pipeline system to address the needs of the Project. The final programs will be developed in a manner consistent with the NEB’s draft conditions of approval related to emergency response.

Following receipt of a Certificate of Public Convenience and Necessity (CPCN) for the Project, KMC will file with the NEB a consultation plan related to KMC’s EMP review that will include consultation scope, objectives; preliminary lists of regulatory authorities, communities, Aboriginal groups with whom KMC will engage, and a preliminary list of consultation locations and timing, as well as any other information that the NEB requires. The consultation plan will describe the methods that will be used to track commitments made during consultation and to incorporate them into KMC’s EMP, including its ERPs. As part of this program KMC will periodically file reports with the NEB on progress of its EMP review including summaries of interested parties consulted and how their comments were considered.

KMC will file with the NEB the revised ERP for the pipeline as part of the approval conditions for the Project. The plan will demonstrate KMC’s ability to prepare for, respond to, recover from, and mitigate the potential effects of emergencies of any type related to the Trans Mountain Pipeline system. Filing of the ERP will include, for the NEB’s consideration, a final report on the consultation process as well as confirmation that an independent third-party has reviewed and assessed the ERP and that KMC has considered and incorporated the comments generated by the independent review and assessment into the plan.

8.0 Emergency Response

8.F Public Availability of Trans Mountain ERPs (non-redacted)

KMC acknowledges the interest of Intervenors to seek more information about the existing EMP documents, and reference materials related to the Trans Mountain Pipeline system, which is why KMC filed a redacted copy of the existing ERPs publicly (NEB Filing ID A63573). In Ruling No. 50 (NEB Filing ID A4G5I9) the NEB determined that it was "satisfied that sufficient information has been filed from the existing EMP documents to meet the Board’s requirements at this stage in the process."

It is KMC’s intent to continue to share unredacted versions of the EMP documents with agencies tasked with ensuring public safety. KMC’s EMP is shared, tested and regularly exercised with federal, provincial and local agencies. The EMP meets regulatory requirements and KMC works with emergency planners and emergency responders to maintain relationships and to ensure their awareness of KMC’s system, as well as mutual awareness of joint exercises and programs.

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## TABLE 1.5-1  Cont'd

<table>
<thead>
<tr>
<th>Code</th>
<th>Interest/Issue/Concern</th>
<th>Trans Mountain Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.G</td>
<td>Emergency Response times for marine oil spills</td>
<td>Trans Mountain acknowledges that despite the substantial measures that will be in place to reduce the probability of an oil spill from a Project-related tanker (Section 5.3), it is necessary to have resources and plans to minimize the effects of an oil spill, make the best efforts to control the spread of oil, and ensure that clean up is timely and effective. WCMRC and Trans Mountain consulted with spill and response organizations including other response organizations in Canada, the US, and Norway. The equipment specifications associated with the proposed enhancements (including size, speed and capabilities) shall be determined in part from an assessment of response organizations and response equipment from around the world. Proposed improvements to WCMRC emergency response capacity, including spill response times, are outlined in Table 5.5.3 of Section 5.5.2 of Volume 8A.</td>
</tr>
</tbody>
</table>

| 8.H  | Notification protocol for marine oil spills (specific to local gov'ts) | Immediate notification is a key element of any emergency response action. The health and safety of employees and the public is paramount and, as a result, immediate notification is essential. The first step in many incidents is to confirm that an emergency condition exists. Reports may come from a number of sources including automated detection systems, on-site WCMRC or other personnel, and members of the public and/or Emergency Services (Police, Ambulance, Fire). If a notification is made to a local office or pump station, the WCMRC representative receiving the call will implement the following actions in accordance with the WCMRC ERP for Westridge Marine Terminal:  
- Notify the Control Centre and regional office/Qualified Individual.  
- Dispatch field personnel to the site to confirm discharge and conduct preliminary assessment.  
- Notify their immediate supervisor and provide assessment results.  
Depending on the situation, the appropriate actions taken by the Control Centre personnel may include, but are not limited to:  
- Shut-down affected line segment if there is an indication of a leak  
- Isolate line segment  
- Depressurize line  
- Start internal and external notifications  
- Mobilize additional personnel as required.  
For emergency incidents affecting the Fraser River or Burrard Inlet, WCMRC personnel would contact Canada Coast Guard and MCTS at 604.775.8920 and Port Metro Vancouver at 604.665.9086. All marine spills must be reported within one hour to MCTS for fan-out to other Federal Government agencies. The Transportation Safety Board / NEB 819-997-7887 and Emergency Management BC: 800-663-3456 would also be among the initial external calls made. The local 911 call centre will be notified of any incident to inform the call centre operators of the problem or potential problem so they do not allocate additional resources to the event. |

See Table 5.5.3 of section 5.5.2 of Volume 8A (NEB Filing ID A3S4Y6)
Once notified, Emergency Management BC undertakes municipal notification, however, there are many instances where Trans Mountain may have already been in contact with municipalities, such as when first responders are already on scene (e.g., through public notification of the incident). Local government representatives would be invited to participate in the response as part of Incident Command System (ICS). Depending on the incident and requirements, this will likely be into the command post, or other areas of the ICS response team. This is standard ICS operating practice and Trans Mountain responders are trained in ICS. Trans Mountain will not open Emergency Operations Centres (EOC) such as first responders are used to. The incident command post is initially at the scene then it will be relocated to a more appropriate facility offsite. As provided for in ICS, it is KMC’s preference to enter into a Unified Command with the municipal, provincial and federal agencies to ensure a safe and thorough response to any emergency. This allows the communities to put forth their objectives and priorities along with other members of Unified Command.

Notification protocols are among the topics Trans Mountain plans to engage on as part of the enhancement of the current Emergency Management Program to accommodate the proposed expansion. Engagement for the Emergency Management Program enhancement is ongoing with local first responders (fire, police and ambulance), health authorities, emergency managers, and other provincial and federal agencies as appropriate in each pipeline community.

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**PMV role in emergency response**

**Answer provided by PMV at Tri-Cities EMSW at Fraser River Discovery Centre on May 13, 2015:**

- PMV’s role is to facilitate the safe and efficient movement of trade.
- We are not first responders in an emergency. However, we do work with others in emergency situations and our 24/7 Operations Centre acts as a coordination hub for relaying information.
- We maintain procedures, and have equipment and personnel in place to address a variety of emergencies both on land and on water.
- If there was an incident on the Fraser River [or Burrard inlet] we would dispatch one of our operations vessels to be in the vicinity to assist if needed.
- PMV would participate in the ICS structure.

**Note:** Canada Coast Guard (CCG) is the agency responsible for all spill response and recovery under the Canada Spill Response Protocol. However, there is a letter of understanding between PMV and CCG where CCG can call upon PMV to undertake initial actions in the event of an emergency. If a spill is deemed to be recoverable, PMV will hand over responsibility of the incident to CCG and CCG will take over and if necessary set up a Unified Command to undertake clean up efforts. As part of this agreement, PMV will represent the interests of CCG at the spill site until they are relieved by CCG.

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**PMV / CCG Letter of Understanding:**


**PMV website:**


**PMV website:** Emergencies and Spill Response: http://www.portmetrovancouver.com/about-us/topics-of-interest/emergencies-and-spill-response/


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**TABLE 1.5-1 Cont'd**

<table>
<thead>
<tr>
<th>Code</th>
<th>Interest/Issue/Concern</th>
<th>Reference</th>
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</thead>
<tbody>
<tr>
<td>8.H (cont’d)</td>
<td>See above</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Interest/Issue/Concern</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>8.J</td>
<td>Wildlife recovery / emergency management</td>
<td></td>
</tr>
</tbody>
</table>

Wildlife management is covered in the ERPs for the pipeline and facilities. In emergency response, a wildlife branch of the operations section forms within the Incident Command System. Generally, the best response strategy is to prevent wildlife from being impacted by the product via an effective monitoring, reconnaissance and hazing program. If wildlife impacts are unavoidable, proactive search and collection to quickly retrieve contaminated animals is imperative. The sooner an animal is brought into care for treatment, the healthier it is, and the faster it will progress through the wildlife care centre and return to the wild.

For incidents involving the Fraser River or Burrard Inlet, our spill response contractors such as WCMRC have hazing equipment that can be deployed.

Trans Mountain will engage with appropriate agencies and animal rescue/rehabilitation organizations on the wildlife management protocols in the efforts to enhance the current Emergency Management Program to accommodate the proposed expansion.

### Section 1.3 of Volume 3 A (NEB Filing ID: A3S0R2)

**Design of Stakeholder Engagement Program**

Trans Mountain is committed to undertaking open and thorough engagement with Aboriginal groups and coastal communities along the pipeline route and marine corridor. Extensive dialogue with landowners, Aboriginal groups, government, communities and stakeholders will ensure these views are included in our plans and legacies for the proposed Expansion Project and Facilities Application.

As part of the stakeholder engagement program, Trans Mountain has designed a comprehensive and extensive public consultation process, commonly known as stakeholder engagement. Stakeholder engagement involves multiple rounds of the Process, the release of the proposed Project to the public, and the receipt of feedback from stakeholders.

In consideration of the potential impact to the marine environment from an increase in tanker traffic as a result of the Project, Trans Mountain has extended stakeholder engagement to include Aboriginal groups and coastal communities, beyond the pipeline terminus at Westridge Marine Terminal in Burnaby, BC. In recognition of this and the high level of stakeholder interest in marine shipments of petroleum products, Trans Mountain has engaged communities on Vancouver Island and the Gulf Islands along established marine shipping corridors transited by oil tanker traffic as well as communities in and around PMV.

Engagement with pipeline communities has focused on maritime matters related to the proposed incremental increase in tanker traffic and the expansion of Westridge Marine Terminal. It has included aspects such as Traditional Marine and Resource Use (TMRU), emergency preparedness, spill response and Project-related opportunities.
1.6 Communication Activities Overview – August 1, 2014 to June 30, 2015

In support of ongoing marine engagement activities, the following communications initiatives ensured marine information was communicated to stakeholder groups thoroughly, in plain language, in a manner that maintained stakeholder relationships and built public acceptance for the Project.

1.6.1 Website Updates

A living communications tool, the Trans Mountain website, www.transmountain.com, continued to evolve and be updated with current Project information. In April 2015, Trans Mountain refreshed its website with an updated home page, additional topic specific landing pages and a revised navigational restructure. The primary goals of the website refresh was to make it easier to navigate, increase user interaction with the content, increase visual interest and simplify messaging.

Since the website was refreshed, it has received 25,585 unique visitors. Message blocks on the home page navigate visitors to topic specific pages that highlight important information (i.e., marine safety, community engagement, Project benefits, maps, pipeline safety, environmental protection and jobs and vendors). Figure 1.4.1 provides a screen capture of the refreshed website.

1.6.2 Trans Mountain Updates

Trans Mountain continues to share news about the Project via its website through stories and articles published under Trans Mountain Updates. When applicable, this information was distributed via the Project’s electronic newsletter, Twitter account and to the news media through the media relations program. Table 1.6-1 provides a list of the Trans Mountain Updates provided during the reporting period.

<table>
<thead>
<tr>
<th>Title</th>
<th>Date</th>
<th>Page Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reed Point Marina Supports Trans Mountain Expansion Project</td>
<td>August 7, 2014</td>
<td>178</td>
</tr>
<tr>
<td>A Visit With Sea Lions: Trans Mountain Learns More About Ongoing Research in Burrard Inlet</td>
<td>September 19, 2014</td>
<td>137</td>
</tr>
<tr>
<td>Taking Your Calls: On The Line for Telephone Town Halls with Ian Anderson</td>
<td>September 22, 2014</td>
<td>256</td>
</tr>
<tr>
<td>Wildfire fighter lands new career through Aboriginal surveyor program</td>
<td>January 5, 2015</td>
<td>270</td>
</tr>
<tr>
<td>Upgrades at the Westridge Marine Terminal to enhance leak detection capability</td>
<td>January 8, 2015</td>
<td>145</td>
</tr>
<tr>
<td>TERMPOL Review Committee supports several safety measures proposed by Trans Mountain</td>
<td>February 18, 2015</td>
<td>141</td>
</tr>
<tr>
<td>World-Class Computer Simulation Program Developed by Ausenco</td>
<td>March 3, 2015</td>
<td>252</td>
</tr>
<tr>
<td>Trans Mountain files responses to TERMPOL-related Intervenor information requests</td>
<td>March 17, 2015</td>
<td>58</td>
</tr>
<tr>
<td>Pacific Salmon Foundation – $50,000 donation to help with enhancement of salmon habitat in Burrard Inlet</td>
<td>April 20, 2015</td>
<td>118</td>
</tr>
<tr>
<td>Westridge 2007 Spill: The Marine Environment Seven Years Later</td>
<td>April 22, 2015</td>
<td>183</td>
</tr>
<tr>
<td>The Great Salmon Send-Off</td>
<td>May 11, 2015</td>
<td>23</td>
</tr>
<tr>
<td>Maritime Energy Transport – Today and Tomorrow in the Pacific Northwest</td>
<td>May 11, 2015</td>
<td>40</td>
</tr>
<tr>
<td>Working River Project Moving Forward with an Investment from Kinder Morgan Canada</td>
<td>May 12, 2015</td>
<td>135</td>
</tr>
<tr>
<td>Westridge Marine Terminal Committed to Green Marine</td>
<td>June 3, 2015</td>
<td>54</td>
</tr>
<tr>
<td>Journalists take a close-up look at how Trans Mountain does business at its oil-handling facilities in Burnaby and Burrard Inlet</td>
<td>June 8, 2015</td>
<td>85</td>
</tr>
<tr>
<td>Clean Pacific Conference: Changing landscapes in rail, pipeline and vessel transport</td>
<td>June 24, 2015</td>
<td>44</td>
</tr>
</tbody>
</table>
2.0 MARINE ENGAGEMENT (ONGOING)

Trans Mountain’s engagement is ongoing. Engagement and communications activities will continue as the Project proceeds through the NEB regulatory process and, if successful, the construction and in-service phases of the Project. Engagement and communications activities will continue through a number of initiatives, including but not limited to open houses, workshops, one-on-one meetings, presentations, website, online feedback forms, printed materials and digital media including social media. **Trans Mountain will continue to communicate any changes or updates to Project plans, and share information with stakeholders on topics such as the following:**

- **Marine Industry (Q3 2015 to Q3 2016)** In September 2015 Trans Mountain will be making a presentation to the Fish Safe Advisory Committee about the marine aspects of TMEP including the projected increase in marine tanker traffic and the navigational mitigations that are being pursued to minimize risk from additional vessel traffic.

- **Completion of EPP Workshops (Q3/Q4 2015)** November 2015 Trans Mountain will finish a round of EPP workshops on the topic of Westridge Marine Terminal construction. A draft EPP for Westridge Marine Terminal was filed as part of the Facilities Application in Volume 6D (NEB Filing ID A3S2S9). EPP workshops include dialogue with subject matter experts, regulators, local stewardship and interest groups to seek input into reclamation and environmental protection plans for municipal and regional parks, fisheries and areas of local or regional environmental significance.

- **Emergency Management (Q3 2015 to Q3 2018)** Building on the success of the Tri-Cities emergency management workshop which also included participation from PMV and WCMRC, Trans Mountain will continue to host Emergency Management workshops with marine communities in Metro Vancouver and the Fraser Valley, focusing on the enhancement of the new Emergency Management Program. The engagement for the enhanced program will include a review of the Trans Mountain planning standard, and an emphasis on local inputs to enhanced geographic response planning.

- **Preconstruction Engagement (Q4 2015 to Q3 2016)** – Ongoing engagement on topics such as construction planning, worker accommodations, worker code of conduct, traffic planning, safety around camps and economic and procurement opportunities.

- **Construction Readiness (Q3 2016 to Q3 2017)** – Ongoing engagement that would include advance notice of upcoming construction activities, economic opportunities associated with workforce hosting, procurement opportunities and introduction of community relations staff for construction phases of the Project.

- **Municipal and Regional Government Engagement (Ongoing)** – Continue to meet with municipal and regional governments to provide updated Project information and to seek input into Project plans. These sessions will include briefings, as requested, for newly elected local government officials in BC.
Marine Consultation Summary No. 1
January 5, 2015

APPENDIX A
In May 2015, Trans Mountain provided locally elected officials and key staff with an update of upcoming engagement activities in each respective riding (9.1 Opportunities for Input on Marine Issues/Concerns). No response received.

- **No refining of petroleum occurs at WMT Inlet.** (more information provided as per code 2.J in common issues/response)
- **Inlet.** (more information provided as per code 2.J in common issues/response)
- **ship per day will move in and out of the east end of Burrard.**
- **5% of the time will all three be loading.**
- **Approximately one Westridge will expand from one to three berths.**
- **Less than**
- **Ships leaving Westridge are mostly destined to California.**
- **regarding marine emissions**
- **Engagement with Fraser Valley Regional District (FVRD)**
- **Vapour destruction - changes that will be made**
- **lights and odours.** (see more information as per code 7.A.3)
- **facility. PMV recently updated their harbour operations such that tankers need to abide by the criteria to visit WMT one time safety, but there are some good neighbour aspects as well, vessels calling at WMT. The criteria are mostly focused on Destination of tankers after Westridge with expansion (7.B.2 Product Destination, 7.B.3 Support of Chinese Growth and Use of tankers at its terminal to shut their boilers off)
- **Can tankers shut down their engines? Can they shut down vessels in transit, 5.A.1 Human health impacts related to noise, air quality [normal operations and accidents] at Westridge Marine Expressed concerns about increase in tanker traffic and effects on air quality (in Fraser Valley) (See 1.D Emission Impacts from each respective riding (9.1 Opportunities for Input on Marine Issues/Concerns)'
- **FEDERAL CONSULTATION**
- **Commitments/Follow-up Actions**
- **Comments/Concerns Expressed and Addressed in Table 1.1 - Common Issues/Responses**

**TABLE A-1**

<table>
<thead>
<tr>
<th>Commitments/Follow-up Actions</th>
<th>Comments/Concerns Expressed and Addressed in Table 1.1 - Common Issues/Responses</th>
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</thead>
<tbody>
<tr>
<td>Trans Mountain Response to PMV Informal IR</td>
<td></td>
</tr>
</tbody>
</table>
TMEP sent letter to re-elected Mayor in response to his participation in a joint declaration of non-confidence in the NEB process issued by the COV on March 31, 2015. An offer was made to provide a Project update (See: 9.1 Opportunities for Input on Marine Issues/Concerns).

• Mayor declined offer to meet.

TMEP offered opportunity to meet in February 2015, regarding IR responses (See: 9.1 Opportunities for Input on Marine Issues/Concerns).

• No response to the December 2014 letter was provided by the City of North Vancouver (CNV).

TMEP offered briefing to re-elected Mayor and council (See: 1.0 – Environment; 3.A - Tanker Safety; 5.0 - Socio-Economic Benefits and Impacts; 8.0 - Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns).

• No response to the letter was provided.

TMEP sent letter to the new Mayor and council December 2014, offering to provide a project update (See: 9.1 Opportunities for Input on Marine Issues/Concerns).

• City of Richmond expressed interest in meeting to discuss IR responses (See: 9.1 Opportunities for Input on Marine Issues/Concerns).

• TMEP recognized interests and concerns raised in Richmond which included: environmental impacts; tanker safety; socio-economic impacts; and emergency response.

• Stakeholder requested to move meeting to April 2015.

• Stakeholder agreed to meet in February 2015.

• TMEP offered to meet in March/April 2015 regarding outstanding IR responses.

• TMEP requests to schedule were not returned.

In May, 2015, Trans Mountain provided locally elected officials and key staff with an update of upcoming engagement activities in each respective riding (9.1 Opportunities for Input on Marine Issues/Concerns).

• No response received.

• No response received.

• No response received.

LOCAL GOVERNMENT CONSULTATION

City of Richmond: In May, 2015, Trans Mountain provided locally elected officials and key staff with an update of upcoming engagement activities in each respective riding (9.1 Opportunities for Input on Marine Issues/Concerns).

BC MLA Burnaby North: Trans Mountain has met twice with a joint group of air quality regulators named the Lower Fraser Valley Air Quality Coordinating Committee (LFVAQCC) which includes Metro Vancouver, Fraser Valley Regional District, and the City of Burnaby. Following these meetings, a joint letter was sent to Environment Canada, BC Ministry of Environment and PMV.

BC MLA Surrey Tynehead: Trans Mountain has met with local and provincial government representatives to discuss, among other topics, potential impacts on the air quality from both the existing and new pipeline.

BC MLA Chilliwack Hope: In May, 2015, Trans Mountain provided a project update to local elected officials and key staff in Chilliwack.

Municipality of Bowen Island: In May, 2015, Trans Mountain met with the Municipality of Bowen Island to discuss the project.

City of Richmond: In May, 2015, Trans Mountain met with City of Richmond officials to discuss the project.

City of North Vancouver (CNV): In May, 2015, Trans Mountain met with CNV officials to discuss the project.

City of Burnaby: In May, 2015, Trans Mountain met with City of Burnaby officials to discuss the project.

City of Surrey: In May, 2015, Trans Mountain met with City of Surrey officials to discuss the project.

City of Vancouver (COV): In May, 2015, Trans Mountain met with City of Vancouver officials to discuss the project.

City of Richmond expressed interest in learning more about Emergency Management (See: 8.A Desire to observe/participate in Emergency Response exercises; 8.E Fraser River Spill Response; 9.1 Opportunities for Input on Marine Issues/Concerns).

Trans Mountain Response to PMV Informal IR (cont'd)
### Comments/Concerns Expressed and Addressed in Table A-1 - Common Issues/Responses

<table>
<thead>
<tr>
<th>Stakeholder/Group Name</th>
<th>Date of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trans Mountain Response to PMV Informal IR</td>
<td>June 3, 2015</td>
</tr>
<tr>
<td>Kirk Road and Rehemia Community Association (KRC)</td>
<td>Offer for City of Burnaby (Fire Department) to participate in Westridge Terminal full scale exercise scheduled for October 2015</td>
</tr>
<tr>
<td>City of Burnaby</td>
<td>In May 2015, TMEP provided City of Burnaby with notification of upcoming engagement opportunities (See: 9.1 Opportunities for Input on Marine Issues/Concerns)</td>
</tr>
<tr>
<td>New Westminster</td>
<td>Mountain issued a letter to the City of Burnaby in July 2015</td>
</tr>
<tr>
<td>City of Vancouver (COV)</td>
<td>Programme to provide public access to the environmental impact statement (EIS) and public hearing.</td>
</tr>
<tr>
<td>City of Burnaby</td>
<td>There were no representatives from the City of Burnaby in the Town Halls.</td>
</tr>
<tr>
<td>City of Burnaby</td>
<td>TMEP issued letter to re-elected Mayor in December 2014, offering opportunity to meet to discuss local issues and concerns</td>
</tr>
<tr>
<td></td>
<td>TMEP offered briefing to re-elected Mayor and council in a letter issued December 2014 (See: 1.0 – Environment; 3.A - Tanker Safety; 5.0 - Socio-Economic Benefits and Impacts; 8.0 - Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)</td>
</tr>
<tr>
<td></td>
<td>TMEP offered to set up a separate meeting with the marine industry and City of Burnaby.</td>
</tr>
<tr>
<td></td>
<td>TMEP offered opportunity to meet in February 2015 regarding IR responses (See: 9.1 Opportunities for Input on Marine Issues/Concerns)</td>
</tr>
<tr>
<td></td>
<td>Trans Mountain will continue to attempt to engage with the City of Burnaby and associated stakeholders</td>
</tr>
<tr>
<td></td>
<td>TMEP issued invitation to participate in Tri Cities Emergency Management Workshop on May 13 2015 (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)</td>
</tr>
<tr>
<td></td>
<td>Trans Mountain will continue to attempt to engage with the City of Burnaby</td>
</tr>
</tbody>
</table>
Incorporating stakeholder input:

- Best available technology
- Emergency Response

Concerns about TMEP and WCMRC response to 2007 spill (See: 8.D Emergency Response Plan (ERP)s/capabilities are not in place/adequate for WMT and 8.C Emergency Response Capacity of WCMRC)

Issues/Concerns:
- City of Port Moody IR No. 2.2.2c [NEB Filing ID A4H8G9]
  - Offering to meet to answer any outstanding questions not resolved through IR process (See: 9.1 Opportunities for Input on Marine Issues/Concerns)

TMEP explained need to understand PMV permit requirements before marine offsets. TMEP issued IR follow-up letter and follow-up phone call in February 2015 to City of Burnaby regarding filing of IR responses and for impacts associated with Westridge Marine Terminal were forInput on Marine Issues/Concerns)

City of Port Coquitlam participated in the Fraser River Spill Response Scenario Workshop with Tri Cities (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)

City of Coquitlam requested clarity on whether the emergency management focuses on expansion project or existing pipeline and that participation is not recorded as project support (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)

City of Port Moody expressed interest in emergency management briefing (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)

City of Port Moody was offered participation in Westridge Emergency Exercise in Fall 2015 (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)

Trans Mountain confirmed that emergency management focuses on expansion project or existing pipeline and that participation is not recorded as project support (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)

City of Port Moody expressed interest in emergency management briefing and requested emergency management focused on a Fraser River Spill Scenario. Interest in a water-based spill scenario in Tri Cities was noted.

Additional Comments/Concerns Expressed:
- Port Moody Fire Department (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)

Trans Mountain provided introduction to WCMRC personnel and workshop focuses on historical and emergency management program (See: 8.0 Emergency Response; 9.1 Opportunities for Input on Marine Issues/Concerns)

City of Port Moody IR No. 2.2.2c [NEB Filing ID A4H8G9]
  - Offering to meet to answer any outstanding questions not resolved through IR process (See: 9.1 Opportunities for Input on Marine Issues/Concerns)

Trans Mountain Response to PMV Informal IR
Interest expressed in how KMC/TMEP is minimizing environmental impacts resulting from tanker traffic, to inform their research into:

- capable of informing new best practices in marine shipping
- response and liability
- Monitoring of fish-bearing waterways
- capability for construction and/or post-construction environmental harm from expanded operations
- TMEP is interested to learn more about PSF monitoring
- habitat (NEB Filing ID A4I6C1)
- TMEP has committed to provide a presentation to PSF staff at the Management Workshop May 2015.

Coquitlam RCMP participated in Coquitlam Emergency communication during pipeline emergencies

Trans Mountain conveyed stakeholder and regulator interest in conducting or participating in Marine Bird Monitoring in 2015, in an effort to address Trans Mountain's fringe activity.

Bird Studies Canada (BSC) and Pacific Wildlife Foundation (PWLF) have expressed interest in more marine bird monitoring to continue in 2015 in an effort to address Trans Mountain's fringe operations.

Pacific Wildlife Foundation has had ongoing concerns about the project's impact on marine birds, especially during the fall

Coquitlam RCMP has expressed interest in participating in the Coquitlam Emergency Management Stakeholder Workshop – oil spill scenario discussion.

In May 2015, Trans Mountain provided locally elected officials and key staff with an update of upcoming engagement activities in the Tri-Cities.

The City of Surrey Deputy Fire Chief asked to postpone their EMSW session until spring 2015.

In December 2014, the City of Surrey Deputy Fire Chief asked to postpone their EMSW session until spring 2015.

In November 2014, the City of Village of Anmore asked to postpone their EMSW session until spring 2015.

In December 2014, the City of Surrey Deputy Fire Chief asked to postpone their EMSW session until spring 2015.

TMEP sent a letter to Burnaby landowners (including Westridge neighbours) in August 2014 to advise of preliminary exploratory work including geotechnical drilling investigation and accident and accidents at WMT.

TMEP invited three Westridge neighbours to participate in a comprehensive noise assessment around Westridge Terminal to be conducted by KMC Environment in August 2014.


The Project should consider communities along the Burrard Inlet for community benefits.

Commitments/Follow-up Actions

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**Table A-1 Cont’d**

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**Trans Mountain Response to PMV Informal IR**

**Survey Conclusions**

- **Trans Mountain Response to PMV Informal IR**

**Advisement**

- **Trans Mountain Response to PMV Informal IR**

**Supporting Information**

- **Trans Mountain Response to PMV Informal IR**

**Attachments**

- **Trans Mountain Response to PMV Informal IR**

---

**Table A-1 Cont’d**
Trans Mountain website and the NEB website.

Volume 8 Facilities Application is available on the

• available regulatory objectives. Further sampling was conducted on August 1st, 2007, to ensure all levels

analytical results observed no exceedances of

at 12:00 PM. A

conducted from July 27, 2007 at 12:00 PM to July 28, 2007

hour continuous sampling was

the VOC sample. The first 24

toluene, ethyl benzene and xylene (BTEX) components of

below the analytical detection limits, except for the benzene,

Hyperlinks provided to Volume 8 of the Application

•

April 2015

District (GVRD, now

information regarding the Westridge 2007 spill by email in

immediately after the spill in Burnaby in 2007

Email inquiry regarding air quality measurements

•

(NEB Filing ID A4J1A8):

spills)

The initial air monitoring response for the July 24, 2007

Discussion on: Fish Safe Mandate; and establish opportunities to find synergies on marine outreach for commercial fisherman

Note: Burnaby Board of Trade issues its own analysis of

TMEP in January 2015. The analysis was filed as a letter of

TMEP in January 2015. The analysis was filed as a letter of

•

Fraser Delta ecosystem and Burrard Inlet ecologically

•

1.A.5 Underwater noise / acoustic environment 8.B.1 - Funding for research and preparations for future oil spills)

ECHO program to monitor and mitigate underwater noise effects of marine shipping on marine mammals. TMEP is

•

Government Organizations (NGOs)

Coast Guard has started in the US

•

OnC to the program

ECHO program and has pledged financial support for

•

Added more Coastal Ocean Dynamics Applications Radar

(CODAR) for surface currents, to go past Bowen Island for

supportive of the multi-stakeholder, collaborative approach

•

1.B.4 - Marine - response plans for oil spills for sensitive shoreline; (see 8.B - Adequacy of boom technology [existing technology ineffective in wave action]. Commit to best available technology;

•

Looking at coordinated hydrophone program across all Non-

•

Ocean Networks Canada (ONC)

Trans Mountain is pleased to see ONC involvement in the

•

Additional Comments/Concerns Expressed

•

TABLE A.1 - Cont.
1,000 participants

- Chilliwack of WCMRC, etc.
- General public in Abbotsford –

1. Contingency plan in case of spill?

2. Spill scenarios in Burrard Inlet – how does product react?

General public in Vancouver, BC

1. Provided explanation of marine liability and coverage

2. Shared information about fate and behaviour studies and recovery of dilbit

General public in Burnaby, BC

1. Concern and question about tanker traffic

2. Provided an explanation of current and proposed tanker traffic, along with

3. Port Authority, Chamber of Shipping responsible about loading. We load

4. Resulting and current intent is to create habitat that is more productive than what is

5. This is included in the tanker standards document

The number of berths has been increased to decrease the pressure on

6. TMEP will consider stakeholder feedback in terminal design aspects,

7. This is highly dependent on the project. However, typically working groups

8. The respite from a First Nations perspective, affecting other

9. Have we done any studies on the salmon and fish species in the

10. What about routes and the development of dead zones?

11. The number of berths has been increased to decrease the pressure on

12. When a vessel comes into Washington State they put a lock on the

13. The salmon route changes. The

14. That was filed with the NEB on February 27, 2015 (NEB Filing ID A4I6C1)

15. Because this project is water ba

16. Why not historical records?

17. Authorization for habitat offsetting is

18. project that will affect habitat. As a result, you are required to offset those

19. New Coho may be forced out further, and the new coho may not find

20. Selection and execution of habitat offsetting plans?

21. Impacts to Herring and Salmon Populations

22. Selection and execution of habitat offsetting plans?

23. Rapport from a First Nations perspective, affecting other

24. Habitat banking is when a group creates habitat or enhances habitat, then

25. Because this project is water ba

26. N/A

27. Habitat banking is when a group creates habitat or enhances habitat, then

28. Habitat banking is when a group creates habitat or enhances habitat, then

29. Habitat banking is when a group creates habitat or enhances habitat, then

30. Habitat banking is when a group creates habitat or enhances habitat, then
### What is your plan for spilled dilbit in the Strait of Juan de Fuca?

*Vol 8A Sec 5.3.2*

- **What will YOU do to ensure mariners are adequately trained and prepared to deal with a spill?**
  - 
- **Where are stores of spill cleanup equipment and personnel located?**
  - 
- **When was your spill cleanup technology developed?**
  - 
- **How far does bitumen travel in the Fraser River? Remove this blight on our coast entirely.**
  - Enron Jr. aka KM

### Dilbits tested at Gainford over 10 days did not sink.

- Stringent tanker acceptance program ensures high quality ships & crew operating to global best practices at dock.

### What's the enviro record of tankers off the BC Coast? What's doing to keep it enviro friendly?

- There have been no tanker spills from vessels leaving Westridge in its 13 years of operation.

### How will you measure the environmental effect of increased traffic in the Strait of Juan de Fuca?

- Spills are unlikely and specific effects cannot be forecast. A liability regime makes your marine safety specialists?

### Vol 8B TERMPOL 3.15

- Spill liability is based on polluter pays principles. Update to regime provided.

### Would your increased capacity cause 'mission-creep' and result in major spill besides plentiful apologies?

- No spill is acceptable. Spill prevention & mitigation measures in Sec 5.3.2 prevent a recurrence. Since Exxon Valdez, many safety improvements have been undertaken to minimize the probability and damage the best you can do?

### Where are stores of spill cleanup equipment and personnel located?

- Normally she has about 10 m of water under the hull @ 2nd N. Sec 2.1.4 of Captain. Read more on Mike here.

### What marine protections will be put in place to mitigate disasters to waterways, wildlife and people?

- Strong preventative regime exists. Proposed enhancements in TMEP.

### How many tourism and other jobs that depend on clean environment would a marine oil spill near coast entirely? Enron Jr. aka KM

- All vessels bound for PMV transit same waterways. We support the DFO.

### Why should we believe you?

- Spills are unlikely and specific effects cannot be forecast. A liability regime makes your marine safety specialists?

### What is your plan for spilled dilbit in the Strait of Juan de Fuca?

- Proposed enhanced oil spill response plan includes JdFuca see Vol 8A Table 5.5.3

### Federal govt considering changes to remove cap on

- How will you estimate the environmental effect of increased traffic in the Strait of Juan de Fuca? Enron Jr. aka KM

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### What's the enviro record of tankers off the BC Coast? What's doing to keep it enviro friendly?

- How will you estimate the environmental effect of increased traffic in the Strait of Juan de Fuca? Enron Jr. aka KM

### What marine protections will be put in place to mitigate disasters to waterways, wildlife and people?

- Spill response technologies are constantly improving. We've proposed enhancements to WCMRC to double capacity & halve response time.

### How will you estimate the environmental effect of increased traffic in the Strait of Juan de Fuca? Enron Jr. aka KM

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### What marine protections will be put in place to mitigate disasters to waterways, wildlife and people?

- Spill response technologies are constantly improving. We've proposed enhancements to WCMRC to double capacity & halve response time.
pipeline spill scenario within the FVRD. KMC will provide an explanation of why the conclusions of the HHRA for Project related diesel particulate matter were not accepted practice for splitting NOx into NO and NO2. Provide reference for NO and NO2 split from NOx (90% vs 10%) and cross check ARM method. It is possible VCU (Vapour Combustion Unit) at WMT can run for 24 hours during maintenance. If so, why was modelling note done for 24 hours.

16. Is it possible for VCU at Westridge Marine Terminal (WMT) to consider use of VOC offsets. Sound (Woodfibre) LNG project to be included in the cumulative case with emissions from BT expressed commuter train passing through the fence line of the Westridge Marine Terminal for the Base and Application Cases using MEIT, and the resulting background needs to be plus WMT plus Marine using MEIT. TMEP will consider the risks to human health as a result of the West Coast Express commuter train enters/exists the fence line on a daily basis.

17. TMEP will consider use of MEIT pending further discussions on a modelling plan with LFAQCC. TMEP will explain the differences in the modelling for Westridge Marine Terminal have unloading capability.

18. KMC has vessel acceptance criteria, will check KMC to provide odour response plan for WMT. Process for odour complaints. The extent of the VOC improvement on the tank vapour adsorption unit (TVAU) at Burnaby Terminal, and a comparison to existing tanks there. Greg replied that the TVAU re-design will result in a small improvement for North West Combined Incineration Plant (PVM) Continuous Inventory Tool (MEIT), and the resulting background needs to be generated a partial vacuum resulting in a negative pressure so that any leaks draw air from the outside in.

19. TMEP will provide an updated cumulative case with emissions from BT against PMV CIP programs. TMEP will provide more rationale on the conservativeness of the daily and other two at daily average emission rates. Does the Westridge Marine Terminal have unloading capability?

20. KMC will verify and provide reference whether the molar basis is the accepted practice for splitting NOx into NO and NO2. Provide reference for NO and NO2 split from NOx (90% vs 10%) and cross check ARM method. Questions regarding the emission estimates for the VCU, where other two at daily average emission rates. Concern over the leak tightness of the ship's hold. VOCs; all tanks have floating roofs with double seals.

21. KMC will verify the leak tightness of the ship's hold and methods to test for this. Provide description how vapour is collected 100% of the time during a missed tidal window, but would not be part of normal operations. Inventory Tool (MEIT), and the resulting background needs to be generated a partial vacuum resulting in a negative pressure so that any leaks draw air from the outside in.

22. TMEP will consider the risks to human health as a result of the West Coast Express commuter train enters/exists the fence line on a daily basis.
<table>
<thead>
<tr>
<th>Event/Date</th>
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<tr>
<td>LFVAQCC Meeting</td>
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<td>TMC</td>
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</tr>
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<tbody>
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</table>

**Table 2 (Continued)**

<table>
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<tr>
<th>Event/Date</th>
<th>Attendees</th>
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<tbody>
<tr>
<td>TMC</td>
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<td>2. Need BC Ambulance Service engaged in the discussion as they have direct link to health authorities and care homes.</td>
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<td>4. KMC uses the Incident Command System for incident planning which is important; first responders would move into action quickly when Notification protocols.</td>
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<tr>
<td>5. Plume modelling will be important</td>
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<tr>
<td>6. Need to learn how to work with/manage volunteers. Port Coquitlam and City of Coquitlam have set up a Volunteer Program to explore the feasibility of having local volunteers for spill response.</td>
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<td>8. PMV role in traffic management on the river in the event of a spill. Notification protocols. (See 8.I PMV role in emergency management stakeholders in the enhancement of ERPs.</td>
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<td>10. It is KMC's preference to enter into a Unified Command with the municipal, provincial and federal agencies to ensure a safe and thorough response to any emergency.</td>
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<td>11. Early notification of first responders critical with moving water; (See 8.B Adequacy of boom technology in calm water) (i.e., existing technology ineffective in wave action). Commit to data is used to identify if individuals could be at risk for adverse health.</td>
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**TABLE A-2 Cont'd**

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<td>4. KMC uses the Incident Command System for incident planning which is important; first responders would move into action quickly when Notification protocols.</td>
</tr>
<tr>
<td>5. Plume modelling will be important</td>
<td>5. Plume modelling will be important</td>
</tr>
<tr>
<td>6. Need to learn how to work with/manage volunteers. Port Coquitlam and City of Coquitlam have set up a Volunteer Program to explore the feasibility of having local volunteers for spill response.</td>
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</tr>
<tr>
<td>8. PMV role in traffic management on the river in the event of a spill. Notification protocols. (See 8.I PMV role in emergency management stakeholders in the enhancement of ERPs.</td>
<td>8. PMV role in traffic management on the river in the event of a spill. Notification protocols. (See 8.I PMV role in emergency management stakeholders in the enhancement of ERPs.</td>
</tr>
<tr>
<td>10. It is KMC's preference to enter into a Unified Command with the municipal, provincial and federal agencies to ensure a safe and thorough response to any emergency.</td>
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</tr>
<tr>
<td>11. Early notification of first responders critical with moving water; (See 8.B Adequacy of boom technology in calm water) (i.e., existing technology ineffective in wave action). Commit to data is used to identify if individuals could be at risk for adverse health.</td>
<td>11. Early notification of first responders critical with moving water; (See 8.B Adequacy of boom technology in calm water) (i.e., existing technology ineffective in wave action). Commit to data is used to identify if individuals could be at risk for adverse health.</td>
</tr>
<tr>
<td>Event/Date Attendees</td>
<td>Comments/Concerns Expressed and addressed in Table 1.1 - Common Issues/Responses Additional Comments/Concerns Expressed</td>
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<td>----------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Tri-Cities Emergency Management Stakeholder Workshop – spill scenario discussion involving the Fraser River (cont'd)</td>
<td>• See above • Agreement to combine Emergency Operations Centre’s (EOCs), Unified Command (See 1.B.6 Coordination with local resources (i.e., municipal provincial) in the event of a marine oil spill)</td>
</tr>
<tr>
<td>Fraser River Crossing EPP Workshop held on May 19 2015</td>
<td>1. Concern about general risks associated with trenchless crossing under Fraser River, including: a. Depth of river at crossing relative to other utilities  b. Whether dredging would be required to allow for future large vessel pathway to get to Maple Ridge or even Mission  c. Sturgeon use of the channel and it is an important spot for them. Concern if there is a breakout of mud (from horizontal directional drill (HDD) installation) it would have potential impact on environment and affect species  d. Risk of a break in the drilling line  1. a. Depth of pipe underneath Fraser River will be closely examined. HDD crossing of Fraser River is feasible. It’s been crossed several times in the past. The construction risk is that it takes more time and can be more difficult. Tunnel is marginally higher, because of trying to avoid some big boulders that are located ... drill a pilot hole and that will tell us a lot about what we will encounter. Metro Vancouver is putting in a tunnel now at 60 m. We are comparable to that, we raised the depth because they encountered big boulders. We want to try to stay in competent material  b. PMV undertakes regular dredging of the Fraser River – see information on their website: <a href="http://www.portmetrovancouver.com/marine-operations/fraser-river-maintenance/">http://www.portmetrovancouver.com/marine-operations/fraser-river-maintenance/</a>  c. Fisheries monitoring will be in place for construction and post-construction of the Project.  d. Trans Mountain Expansion Project (TMEP) explained break is not likely to happen, but acknowledged there is always a risk when you carry out a directional drill or horizontal crossing. Goal is to design out as much of the risk as possible. We only decide to do a trenchless method in areas where there is a high likelihood of succeeding.</td>
</tr>
<tr>
<td>Burnaby Neighbourhood Information Session held on June 3 2015</td>
<td>• Four attendees from Burnaby/Coquitlam areas • Interest in emergency response and in particular response times (See 8.0 Emergency Response, 8.G Emergency Response times for marine oil spills) • Interest in marine tanker safety/role of pilots, skepticism about BC Pilots role (see 3.B.6 Pilotage of tankers)</td>
</tr>
</tbody>
</table>

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**Table A-2**
APPENDIX B

Marine Consultation Summary No. 1
January 5, 2015
Trans Mountain continues to be involved in initiatives to enhance the fish and wildlife habitat within the Company's operating areas. Where practical, the proposed pipeline route will remain within the existing TMPL right-of-way or parallel existing roads, which will minimize new disturbances to ecological communities. Every effort is made to minimize new disturbances to ecological communities, to minimize impact to wildlife, water courses and key wildlife biodiversity zones. A detailed Environmental Protection Plan (EPP) will be submitted to the NEB IR No. 1.51 (Filing ID A3Y2K0).

For example, construction of Westridge Marine Terminal will result in the loss and/or alteration of intertidal and subtidal habitat, some of which could be used as herring spawning habitat. While herring spawn in Howe Sound, English Bay, and the Fraser Delta ecosystem and Burrard Inlet ecologically sensitive areas, there is some indication local herring populations are rebuilding, as evidenced by the 2009 spawn observed in False Creek - the first spawn at this location in 25 years. The preliminary results of the 2010 and 2011 spawning seasons also indicated improved spawning success for local herring populations. It is anticipated that there will be continued monitoring of these populations.

Refer to responses 3.A and 3.B for information regarding steps taken to prevent spills from tankers. Despite the low probability of a marine oil spill, if one were to occur there is potential for oiling of marine populations (Howe Sound, English Bay, Burrard Inlet). The Preliminary Marine Fish Habitat Offsetting Plan (Filing ID A4A4E4) includes the construction of subtidal rocky reefs that would provide high-value habitat for herring and other marine species. The rocky reefs would also provide suitable habitat for juvenile salmonids and other marine species. A detailed Environmental Protection Plan (EPP) will be submitted to the NEB IR No. 1.51 (Filing ID A3Y2K0).

Fraser Delta ecosystem and Burrard Inlet ecologically sensitive areas

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Western Canada Marine Response Corporation (WCMRC) is the TC-certified spill responder for Canada's west coast. WCMRC's mandate is to ensure there is a state of preparedness in place and to mitigate the impact should an oil spill occur. This includes the protection of wildlife, economic and environmental sensitivities, and the safety of both the responders and the public. View WCMRC's website at http://wcmrc.com.

Trans Mountain is committed to keeping its operations safe, while protecting its employees, facility users and visitors, the public and the environment. Trans Mountain strives to safeguard its facilities and to meet or exceed all applicable federal, provincial and local safety regulations.

Trans Mountain is consulting with local environmental stewardship organizations to understand local efforts to conserve and protect marine mammals on BC's south coast. Trans Mountain continues to be involved in initiatives to enhance the fish and wildlife habitat within the Company's operating areas. Trans Mountain will work with EC and comply with the Migratory Birds Convention Act related to the Project components and impacts. Trans Mountain will conduct Migratory Birds Sanctuary Regulations related to the Project components and impacts. Trans Mountain will conduct Migratory Birds Convention Act related to the Project components and impacts. Trans Mountain will conduct.
The focus of any oil spill is to contain the spill and begin recovery as soon as possible to mitigate any long-term effects. Various studies have been undertaken and are ongoing about the fate and behaviour of oils in the marine environment. The studies are available on the Trans Mountain website at www.transmountain.com.

Beginning in September 2013, Trans Mountain initiated delivery of Emergency Management Stakeholder Workshops with emergency managers and first responders in regional districts along the pipeline. The workshops aimed to improve response planning and coordination in the event of a marine oil spill.

In the case of a marine oil spill, through its environmental response program, the Canada Coast Guard (CCG) is responsible for monitoring and directing the clean-up of ship-sourced spills of oil and other pollutants into Canadian waters. The actual response operation is carried out by WCMRC. CCG responsibilities include monitoring clean-up efforts by polluters and managing cleanup efforts when polluters are unknown, unwilling or unable to respond to a marine pollution incident.

Technical Report 8C 12-S12 in Volume 8C is a report by WCMRC regarding future oil spill response approach plan recommendation for bases and equipment. Section 5.5 of Volume 8A provides an overview of current spill response capability and proposed improvements.

WCMRC is completely funded by industry. Four major oil companies, Imperial Oil, Shell Canada, Chevron and Suncor, along with Trans Mountain are the shareholders. WCMRC has a membership of more than 2,000 marine operators, air services, lumber mills, fishing camps, ferries, port authorities and cruise ships. Annual membership dues assist in WCMRC's funding. See www.wcmrc.com.

Risk management for the proposed expansion is focused on minimizing the potential effects of increased vessel transits. Provided the proposed additional navigational controls were implemented as a result of the Project, the risk of a credible worst-case oil spill resulting from the Project-related increase in tanker traffic would be less than 1 in 100,000.

In order to reduce the probability of an accident occurring that would result in a spill from a Project-related tanker, Trans Mountain is seeking endorsement from TC for additional measures to improve maritime community to identify potential improvements to existing navigational safety controls related to the predicted increase in tanker traffic as a result of the Project.

Trans Mountain has been in consultation with various maritime authorities such as TC, PMV, PPA, BC Coast Pilots Association, Chamber of Shipping BC (COSBC), WCMRC, tug providers, and others in the shipping industry to identify potential improvements to existing navigational safety controls related to the predicted increase in tanker traffic as a result of the Project.
Complex Response to City Burnaby IR No. 1.18.13a (Filing ID A3Y2E6) - Construction of new dock

Volume 8B: Technical Reports, Marine Air Quality and GHG Emissions (Filing IDs A3S4Y3, A3S5Q3 and A3S4Y9)

Volume 8A: Marine Transportation, Sections 4.2, 4.3, 4.4, 5.6 and 5.7 (Filing IDs A3S4X6, A3S4X7)

Volume 7: Risk Assessment and Management of Pipeline and Facility Spills, Section 7.0 (Filing ID A3S2S6)

Appendix O of Volume 6C (Filing ID A3S1R0)


Ensure equipment is well-maintained during construction to reduce air emissions.

• Construction (Filing ID A3S1K6)

Restrict the duration vehicles and equipment are allowed to sit and idle to less than one hour unless air temperatures are less than 0°C.

Trans Mountain will consult with and inform landowners and stakeholders of the potential to be affected by emissions from construction activities prior to commencement of these activities in the proximity.

1.D.3

Emissions from terminal construction

1.D.2

1.D

Response to Lower Fraser Valley Air Quality Coordinating Committee - Informal Information Section 7.6.4 of Volume 5A (Filing ID A3S1Q9) More information on this topic was provided in Trans Mountain's Response to Lower Fraser Valley Air Quality Coordinating Committee - Informal Information Requests from September 25 and November 13, 2014 Meetings.

Section 7.6.4 of Volume 5A (Filing ID A3S1Q9) discusses potential air emissions for Westridge Marine Terminal.

PMV Harbour Air Emissions Standards

PMV encourages the reduction of emissions from vessels at berth or anchored within PMV's jurisdiction through the EcoAction program. This voluntary program provides discounted harbour rates for vessels.

Additional information on PMV harbour air emission standards can be found in the Fee Document at:  http://portmetrovancouver.com/en/portusers/fees.aspx

Ships at anchor within the Port are under the jurisdiction of PMV.

In addition, every ocean going commercial vessel is currently required by the IMO to have in place a Shipboard Energy Efficiency Management Plan. From a more practical perspective, given the high cost of fuel, ship operators benefit greatly by taking extra care to ensure that the ship's engines operate efficiently, which plays a very positive overall role in reducing emissions as well. All of the above factors help

PMV’s facilitation of compliance with IMO regulations

The amount of product that can be recovered will depend on response capacity in place proximate to the spill location, as well as many other factors such as weather and product volume spilled. In some situations, it is not possible to remove or fully remediate the impacts of a spill. These situations may occur due to limited access to the area or in situations when trying to remediate the area will result in more disturbance/damage than good. In these situations a Risk Management Plan will be developed and a Long Term Monitoring Program will be implemented to ensure that contamination is not...

TABLE B-1  Cont’d
More information on this topic was provided in Trans Mountain’s Response to Lower Fraser Valley Air Quality Coordinating Committee - Informal Information Requests from September 25 and November 13, 2014 Meetings.  

There will be no fugitive emissions associated with product loading activities at the Westridge Marine Terminal because 100% of vapours will be collected by the VCS during crude oil loading, which includes a transition from tankers.  

As a measure to help reduce and mitigate GHG emissions from ships in port, a number of ports around the world, including PMV, provide the ability for ships fitted with special high voltage electrical power connectors to connect to shore power during their time alongside a berth. Trans Mountain has checked with International Association of Independent Tanker Owners (INTERTANKO), whose members control the majority of tankers calling on the Westridge Marine Terminal.

The ability to connect shore power at the Westridge Marine Terminal is limited due to the small number of vessels that can connect to shore power. Trans Mountain has received confirmation from the International Association of Independent Tanker Owners (INTERTANKO) that the serviceable tankers that can connect to shore power are limited due to safety concerns.  

In response to Syme N IR No.1.3b. Westridge Marine Terminal is being included in the new power plan that Trans Mountain is working on. The new plan will be completed in 2016. As a measure to help reduce and mitigate GHG and noise emissions from ships in port, a number of ports around the world, including PMV, provide the ability for ships fitted with special high voltage electrical power connectors to connect to shore power during their time alongside a berth.  

Users of the Westridge Marine Terminal are not permitted to have their tankers vessel lights on due to regulations. The lights are turned off during periods of low activity.  

The start-up and shutdown activities of the Westridge Marine Terminal have the potential to directly and indirectly influence marine fish and fish habitat through the following:

- Migration and distribution
- Agglomeration
- Habitat alteration or loss
- Changes in productivity
- Changes in distribution
- Changes in abundance
- Species replacement
- Changes in life stages
- Changes in age distributions
- Changes in behavior

The Westridge Marine Terminal has operated safely for over 60 years and the proposed expansion of this facility is considered the best, most responsible option. The proposed expansion of Westridge Marine Terminal will benefit the economy and provide employment in the region.  

The potential introduction of invasive species from Project-related tankers is discussed in the marine fish and fish habitat assessment for the Westridge Marine Terminal - Section 7.6 of Volume 5A.

The change in productive capacity of marine fish habitat will be reviewed and evaluated during the EPP development process. The EPPs will identify potential mitigation and reclamation measures that may be implemented during detailed design, pre-construction, construction and post-construction activities at the Westridge Marine Terminal.  

Section 7.6.6 of Volume 5A (Filing ID A3S1R0) describes potential Project effects on fish and fish habitat. Section 7.6.9 of Volume 5A describes potential Project effects on marine fish habitat and fish habitat.  

Shoreline erosion due to increase in tanker traffic and Port of Vancouver marine and air quality impacts were also included in the project assessment.  

The Westridge Marine Terminal has operated safely for over 60 years and the proposed expansion of this facility is considered the best, most responsible option.
In response to input received during public consultations since May 2012, the dock footprint and location design has been modified to minimize the impact on the neighbouring residents of Westridge users of Burrard Inlet while minimizing the impact on those residing near the marine terminal to the greatest practical extent.

The dock layout option presented in the Application has been deemed the best suited for the location at Westridge and provides the necessary high degree of safety for the terminal, vessels, workers and other view sheds, lights, noise, odour, traffic) on neighbouring residential areas.

In assessing the various criteria, the overriding priority is the terminal safety as it pertains to navigation/vessel safety and spill avoidance, as well as safety and of operating personnel.

Twenty different layouts were considered for the Westridge dock complex. The process of selecting a location and orientation for the berths is influenced by a number of different criteria and involves optimizing a number of often competing interests.

The expanded facilities will be built in accordance with the latest building codes, which will account for any geotechnical issues identified through a geotechnical assessment of the foreshore and jetty sites that are currently ongoing. These will guide the engineers on specific engineering design and construction details required to be undertaken in constructing proposed Westridge facilities.

Trans Mountain understands the details of the program, including timing, funding and participation are not yet finalized. Through its existing relationship with PMV as a tenant within the Port, Trans Mountain is exploring the opportunity to support the initiative.

Trans Mountain understands PMV is involved in discussions with the CoV regarding opportunities for PMV, representing the interests of the Port its tenants and users, to contribute towards the cost of a new Ability to contribute to marine fire response capacity, ability to fight interface fires), are fire boats required? Westridge Marine Terminal has a fire suppression system in place. Additional fire suppression upgrades are being considered as part of the Project. Refer to Section 3.4.4.8.2 of Volume 4A for details of the Westridge fire protection system.

 Twenty different layouts were considered for the Westridge dock complex. The process of selecting a location and orientation for the berths is influenced by a number of different criteria and involves optimizing a number of often competing interests.
<table>
<thead>
<tr>
<th>Interest/Issue/Concern</th>
<th>1.0/2.0 Marine Terminal (cont'd)</th>
<th>2.0 Marine Terminal (cont'd)</th>
<th>3.0 Marine Tankers</th>
<th>4.0 Reverse Movements</th>
<th>5.0 Marine Spill Prevention</th>
<th>6.0 Initial Accident Response</th>
<th>7.0 Final Accident Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensations for property devaluation</td>
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<td>Process:</td>
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<tr>
<td>1.</td>
<td>Should adjacent landowners be of the opinion that the operations related to the TMPL have caused them directly related damages as defined in the NEB Act or Wembley Estates IR No. 1.</td>
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<td>2.</td>
<td>Sell the affected property to an independent third party through the open market.</td>
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<td>3.</td>
<td>If the appraiser determines that an actual loss has occurred that is directly related to the operations of Trans Mountain, prepare and submit a claim for compensation to Trans Mountain enclosing a copy of the appraisal report to:</td>
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<td>Reference</td>
<td>Trans Mountain Response to PMV Informal IR</td>
<td>Earle T IR No. 1.1 (Filing ID A3X6C9)</td>
<td>TMEP’s compensation framework for situations where we do not directly affect adjacent lands, but where the property owner is concerned about potential property value effects is addressed in Trans Mountain’s</td>
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<td>TABLE B-1  Cont’d</td>
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The PPA requires laden tankers to have two PPA-certified pilots on board, one to ensure safe conduct of the vessel and one to monitor the bridge crew and ship systems. In BC coastal waters, pilots are provided by the British Columbia Coast Pilots Ltd. under license from the PPA. Two PPA-certified pilots come aboard to ensure the tanker safely navigates out of Canadian government vessels, ferries, or US government ships under 10,000 gross tons.

The marine ESA considers the potential effects of increased Project-related marine vessel traffic on recreational users in (Section 4.3.11 of Volume 8A). The impacts of increased vessel traffic through the movement restricted area (MRA) can be managed through efficient scheduling as tanker transit times are specific to tidal schedules. This is shown from

Marine Terminal must pass.

This MRA procedures document regulates the movement of vessel traffic within the Second Narrows, a geographically constricted area within the Burrard Inlet through which vessels calling at the Westridge Marine Terminal are part of an internationally established shipping route and traffic separation scheme.

Alternatives related to the tanker shipping lanes and analysis of the tides and weather as put forward in response to PMV IR No. 1.2.1. The International

improvement is reflected in the very low number of oil spills from tankers, which statistic has trended significantly lower since introduction of double hull tankers and the phasing out of single hulls. Tankers  are


crude oil rail cars

See Technical Report 8C-7 TERMPOL 3.9 – Ship Specifications (NEB Filing ID A3S4T2)
### Table 3.B.8 3.0 Marine Tankers (cont’d)

<table>
<thead>
<tr>
<th>Code</th>
<th>Interest/Issue/Concern</th>
<th>Comment or Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improper navigation</td>
<td>PMV does not monitor the movements of most pleasure craft, but if a boater is causing a navigational hazard, the PMV patrol boat will attend and address the issue.</td>
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<tr>
<td>2</td>
<td>Improved communication</td>
<td>OBS provides regulatory training to enforcement agencies (e.g. RCMP, Conversation Officers, etc.); provides advice to enforcement officers; attends and/or leads regional enforcement working groups meetings; follows up on close quarters situation or any incident upon request by the enforcement agencies on a case by case basis.</td>
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<tr>
<td>3</td>
<td>Improved supervision</td>
<td>The OBS also trains other stakeholders and partners in performing their roles.</td>
</tr>
<tr>
<td>4</td>
<td>Improved enforcement</td>
<td>On average about 500 incidents are reported annually to Vancouver MCTS and the majority of these incidents relate solely to recreational vessels. These vessels are more likely to be located within the inner DO on average for a longer period of time. On average about 500 incidents are reported annually to Vancouver MCTS and the majority of these incidents relate solely to recreational vessels.</td>
</tr>
</tbody>
</table>

### Draft Restrictions and Under Keel Clearance

- **Draft restrictions** and under keel clearance requirements are explained in section 2.1.4 of Volume 8A. The level of care and safety in the study area has been enhanced since the terminal entered service in 1953. The regime is based on regulatory requirements, local experience and in some cases, industry-accepted practices.

### References

- General Risk Analysis and Intended Methods
- TERMPOL Review Process Report (NEB Filing ID A4F8Z4)
- A Review of Marine Recreational Vessel Activities in Burrard Inlet (NEB Filing ID A4A4I4)
- TERMPOL 3.7 TR 8C-5 of Volume 8C (Filing ID A3S4S9)
- Village of Belcarra, NEB IR No. 1.8 (Filing ID A3X6W1)
Opportunities for Project to help improve the rail car transit capacity of the Second Narrows CN Rail Bridge?

- The opportunity exists to further mitigate the effects of increased vessel traffic to Rail Bridge through efficient scheduling, as tanker transit times are specific to tidal schedules.

- In marine traffic as a result of TMEP.

- Trans Mountain will continue to engage with CN, as well as PMV, and provide Project related information in order for CN and PMV to coordinate efforts towards efficient management of goods movement in light of the proposed increase in marine traffic as a result of TMEP.

- The marine mammal's assessment in the Application considers the effects of increased underwater noise on SRKW and modeling has been conducted. In addition, Trans Mountain supports the comprehensive industry-government advisory group that would develop effective mitigation measures to reduce potential effects of underwater noise on marine mammals in the region.

- Trans Mountain is investigating potential mitigation options such as participating in a joint Action Plan Series. Fisheries and Oceans Canada, Ottawa.

- Other impacts of the proposed increase in marine traffic as a result of TMEP.

3.F.4 Table 4.3.11.2 in Section 4.3.11.4.2 of Volume 8A (Filing ID A3S4Y3)

- Second Narrows are more stringent for tankers, especially Aframax vessels, than for non-tankers and vessels of lesser size. These other vessels have significantly more opportunities to transit the Second Narrows, especially Aframax class) served at the terminal will not change as part of the proposed Project. If at any time in the future a larger vessel class is proposed, a new regulatory application and review process would be undertaken.

- Within the Burrard Inlet, Trans Mountain predicts the Project-related increase in marine tanker traffic will represent 16.4% of total marine tanker traffic volume, compared to the current 3%. Trans Mountain does not expect long term impacts beyond increasing the number of vessel transits.

- Trans Mountain’s assessment has considered potential increase in PMV traffic, information that is available in Section 2 of Volume 8A - Marine Transportation. Trans Mountain's loading program to ensure that all vessels navigate local waters safely.

- The opportunity exists to further mitigate the effects of increased vessel traffic to Rail Bridge through efficient scheduling, as tanker transit times are specific to tidal schedules.

- Table 1.7.4 of Volume 3A, Public Consultation (Filing ID A3S0R5)

- Near-shore dredging might be necessary to accommodate the expansion of Westridge Marine Terminal.

- Sections 7.6.8 and 8.11.3 of Volume 5A (Environmental and Cumulative Effects Assessments - Westridge Marine Terminal) (Filing IDs A3S1R0 and A3S1R2)

- PMV has jurisdiction over dredging programs for Burrard Inlet and the Fraser River as part of the Port's mandate to ensure safe and unimpeded access to terminals for vessels.

- PMV has jurisdiction over dredging programs for Burrard Inlet, regardless; no dredging is proposed by Trans Mountain for Second Narrows to accommodate increase in marine transportation for the Project.

- Assessments - Westridge Marine Terminal) (Filing IDs A3S1R0 and A3S1R2)

- Trans Mountain's loading program to ensure that all vessels navigate local waters safely.

- The Trans Mountain Loading Master boards the tanker to conduct a physical inspection and to conduct a ship-shore safety meeting with the master and terminal operators. The tanker is not accepted to load unless it passes the inspection.

- The Loading Master stays aboard the tanker throughout the loading process. The Trans Mountain Loading Master has the authority to request the vessel to rectify any issues that might develop during the loading process.

- Loading arms and vapour recovery lines are connected to the tanker. The Westridge Marine Terminal vapour destruction system is started and loading commences. Loading typically takes 24 to 36 hours.

- Process for loading tankers and potential for small spills.

- Inspections of tankers prior to loading

- Subject to the Vessel's Load Plan, loading usually begins.

- Table B-1  Cont'd
Trans Mountain will provide more information about community investments and submit this to the NEB in Consultation Update No. 3 that will be filed in Q1 2015.

Trans Mountain plans to maximize local, regional and Aboriginal employment opportunities by working with communities and industry associations in the vicinity of the Project. Communities who are not along the pipeline route have expressed concerns about harm resulting from noise, air emissions, and spills. The CCRB, with input from public health officials, will ensure that controls to limit long-term exposure and chronic effects potential will be implemented if warranted. Examples of such controls include closure of recreational or industrial areas.

The health assessment in the Application found that during construction of the Westridge Marine Terminal, the maximum predicted levels of exposure to the chemicals of potential concern (COPC) will be below the levels of exposure that would be expected to cause health effects. Based on the weight of evidence, it is unlikely that people would experience health effects from exposure to the potential increase in VOC emissions, which would result from the construction of the Project.

Overall the health assessment in the Application found that during construction of the Westridge Marine Terminal, the maximum predicted levels of exposure to the chemicals of potential concern (COPC) will be below the levels of exposure that would be expected to cause health effects. Based on the weight of evidence, it is unlikely that people would experience health effects from exposure to the potential increase in VOC emissions, which would result from the construction of the Project.

As the busiest port in Canada and the fourth largest tonnage port in North America, PMV facilitates trade with more than 50 countries and territories. Vancouver's port is one of Canada's largest gateways to accessing the world economy. As the busiest port in Canada and the fourth largest tonnage port in North America, PMV facilitates trade with more than 50 countries and territories. Vancouver's port is one of Canada's largest gateways to accessing the world economy.

The general behaviour of diluted bitumen is similar to other heavy oils in terms of fate and weathering, and spill countermeasures. Typically, once released into the marine environment oil begins to "weather" depending on conditions and could reach density of fresh water. When released into water, lighter components of hydrocarbons will begin to evaporate, some will dissolve into the water column, and the remainder will float as long as the density of the remaining oil is less than the density of the water into which it was released.

Trans Mountain tested dilbit behaviour in brackish water under simulated conditions and oil did not sink for 10 days of the tests.

There are no concerns to oil pipelines and tanks specific to the transport of diluted bitumen compared with the carriage of other crude oils. There are no concerns to oil pipelines and tanks specific to the transport of diluted bitumen compared with the carriage of other crude oils. There are no concerns to oil pipelines and tanks specific to the transport of diluted bitumen compared with the carriage of other crude oils.
necessary resources to minimize its impact on the public and environment. Pipeline failures, as well as minimizing their impact if they do happen. Trans Mountain has detailed ERPs for all the facilities, and in the event of an emergency, Tra

Responsibility for terminal source spill

In May 2014 the Government of Canada enhanced the liability and compensation regime by introducing legislative and regulatory amendments, which will strengthen the liability coverage for the regime.

Lastly, Canada maintains its own source of funding called the SOPF, which has up to $161.29 million of funding available.

- The first level of funding for emergency response, clean-up and compensation to affected parties is from the responsible party's protection and indemnity insurance. Ship owners and operators obtain

Section 1.4.4 of Volume 8A - Canada's marine Oil Spill Preparedness and Response

In the event that all available sources of funds have been exhausted by spill-related claims, the Government of Canada will ensure compensation is provided to eligible claimants, and then recover those

Allan R IR No. 1.21j (Filing ID A3X5V9)

In May 2014 the Government of Canada announced it will enhance the liability and compensation regime by introducing legislative and regulatory amendments. These include:

Conventions limit the liability of the Responsible Party (ship owner) and establish sources of funding for clean-up and compensation for damages. Up to $1.312 billion is available for an individual spill.

The IMO, such as those regarding the International Oil Pollution Compensation Funds (IOPCs).

The Ship-source spill: If oil were released from a vessel, the vessel owner would be the Responsible Party. In addition to the ship owner's insurance, there are a variety of funding sources available to cover the costs

The effects to commercial, Aboriginal fisheries will be created related to Project construction. There will also be direct, indirect, and induced employment effects and procurement opportunities during operations.

The construction and operation of the Project will create substantial economic benefits and opportunities locally and regionally. Numerous direct, indirect and induced employment and procurement opportunities

Procurement opportunities for local small business operators (Aboriginal and non-

TMEP is engaging with Aboriginal groups along the coast to seek their input through meaningful discussion, as to how they can see appropriate community benefits from TMEP.

Benefits for Aboriginal Peoples living along the coast (shipping lanes)

TABLE B-1 Cont'd

<table>
<thead>
<tr>
<th>Section</th>
<th>Table B-1</th>
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</thead>
<tbody>
<tr>
<td>5.D.2</td>
<td>Align the SOPF with international funds by covering pure economic losses suffered by people who have had a loss of earnings but whose property has not been contaminated by an oil spill.</td>
<td></td>
</tr>
<tr>
<td>5.D.3</td>
<td>In the event that all available sources of funds have been exhausted by spill-related claims, the Government of Canada will ensure compensation is provided to eligible claimants, and then recover those</td>
<td></td>
</tr>
<tr>
<td>5.D.4</td>
<td>• Allow the full balance of the Ship-Source Oil Pollution Fund (SOPF), currently about $400 million, to be available in the event of an oil spill.</td>
<td></td>
</tr>
</tbody>
</table>

Reference
Transportation (Filing ID A3S4R2)

Technical Report RE 8B9 of Volume 8B – Qualitative HHRA of Spills from Marine Transportation (Filing ID A3S4R1)

Technical Report RE 8B8 of Volume 8B – Screening Level HHRA of Spills from Marine Transportation (Filing ID A3S5Q3)

Sections 4.4.10 and 5.6.1.2 of Volume 8A – Marine Transportation (Filing IDs A3S4Y3 and A3S1S9)

Normal operations as well as accidents and malfunctions are considered in the HHRA for Westridge Terminal as well as Marine Transportation.

The entire ESA is provided in Volumes 5A, 5B, 5C and 5D (Filing IDs A3S1L2 to A3S2L9)

The ESA was filed with the Application and is available on the NEB's website, the Project's website and in libraries along the pipeline route.

Assessment Westridge Marine Terminal (Filing ID A3W9S6) and Attachment 5 for Risk Assessment Westridge Marine Terminal (shipping) is within the list of issues to be evaluated by the NEB for TMEP.

NEB List of Issues as found on the NEB Website: https://www.neb-one.gc.ca/ll-

Monitoring and Evaluation Plan (MEP) review of navigational safety related to the proposed Project. All information is available in Volumes 8A and 8C.

General Methods of Reducing Risks (Filing IDs A3S5F4 to A3S5J6)

When seeking approval, applicants such as Trans Mountain must submit applications or information filings (collectively referred to as filings) to the National Energy Board.

Section 5.0 of Volume 8A – Risk Assessment and Spill Management (Filing ID A3S4Y3)

The Filing Manual has been developed by the NEB to provide direction regarding the information the Board would typically expect to see addressed in a filing.

NEB Procedural Update No. 4 - https://docs.neb-one.gc.ca/ll-

In early April 2014, the NEB determined the Application is complete and issued a Hearing Order which lays out the key steps and schedule for the process to consider the Project. One July 15, 2014 the Board is planning to release revised hearing events and steps table in Procedural Direction No. 4, which updates and replaces the table found in Procedural Direction No. 2.

Consultation on TMEP was initiated two years prior to filing the Application with the NEB on December 16, 2013.

Canadian coast guard (CCG) and the coast guard of the United States (USCG) are jointly responsible for the program coordination and management of the national oil spill response capability. Both CCG and USCG perform significant roles in the overall national oil spill response capability.
While Trans Mountain does not own or operate the vessels calling at the Westridge Marine Terminal, it is responsible for ensuring the safety of the terminal operations. In addition to Trans Mountain's own traffic relating to marine safety at the Westridge Marine Terminal including rigorous inspections and monitoring for each vessel. In addition, Trans Mountain works closely with PMV, TC, the Canadian Coast Guard, Trans Mountain has been safely loading tankers and barges since 1956 from the Westridge Marine Terminal in Burnaby, BC. Trans Mountain is responsible for and has internal standards and procedures.
Marine Terminal and Buoy "J" at the Pacific Ocean.

TC in consultation with the CCG, EC and other stakeholders codified containment boom and other response resources according to the environment in which they will operate (Transport Canada 1995). These technology.

Commit to best available technology
to ineffective in wave action).

Belcarra IR No. 1.3 (Filing ID A3X6W1)

Adequacy of boom technology (existing pipeline emergency; and information about KMC's ERPs specific to their local municipality, county, or regional district.

exercises, or equipment deployments, how to notify KMC in the event of a suspected pipeline emergency, where to get information on oil characteristics and recommended equipment for responding to a

KMC conducts, on average, 20 to 25 training, table-top, and deployment exercises at locations along the pipeline each year. Many of the exercises involve Aboriginal communities, regulatory agencies, stakeholders, and contracted emergency response support companies.

8.0 Emergency Response

Province BC IR No. 1.1.26a - Attachments 1 and 2 (Filing IDs A3Y3A4, A3Y3A5 and

Currently approved types of crude oil are included in Attachment 1 (Province BC IR No. 1.1.26a - Attachment 1) Part 1 and Part 2.

Trans Mountain anticipates that the types of crude oil that will be shipped in the expanded pipeline system will be the same as or very similar to those currently shipped. Material Safety Data Sheets for the

The representative properties of these crude oils are included in Table 5.1.7, Appendix D, Volume 4A of the Application.

The list of the various types of crude oil that are currently approved for shipment in the Trans Mountain pipeline system is included in the response NEB IR No. 1.93a.

Despite a lack of demand growth in US refining markets, Canadian crude exports to the US are expected to approximately double from 2013 to 2035, representing growth of more than 2.5 million bbl/d.

In the same way a highway does not own the cars travelling on it, Trans Mountain does not own the product it transports. Any product moved in the pipeline must meet Trans Mountain's tariff requirements. These are the specifications that must be followed in order for the

Product destination

Sections 4.2, 4.3 and 4.4 of Volume 8A describe GHG and Air Quality Assessments and potential investments for marine components of TMEP.

Trans Mountain commissioned third party expert opinion from IHS Global Canada Limited (IHS) to examine the oil market supply and demand. Although outside the reporting period for this Update, on

Export of unrefined product (minimize

Our industry has been safely transporting dilbit in pipelines for over 30 years and conventional crude for over 60 years.

Trans Mountain does not own the product it transports. Any product moved in the pipeline must meet Trans Mountain's tariff requirements. These are the specifications that must be followed in order for the
Proposed improvements to WCMRC emergency response capacity, including spill response times, are outlined in Table 5.5.3 of Section 5.5.2 of Volume 8A. Enhancements (including size, speed and capabilities) have been determined in part from an assessment of response organizations around the world.

Trans Mountain acknowledges that despite the substantial measures that will be in place to reduce the probability of an oil spill from a Project-related tanker (Section 5.3), it is necessary to have resources and plans to minimize the effects of an oil spill, make the best efforts to control the spread of oil, and ensure that clean up is timely and effective.

Following receipt of a Certificate of Public Convenience and Necessity for the Project, KMC will file with the NEB a consultation plan related to KMC's EMP review that will include consultation scope, objectives; as well as mutual awareness of joint exercises and programs.

KMC has a rigorous training and response exercise program that ranges from detailed equipment deployment drills to full ICS management and organization training and deployment. Training is provided to employees, head office staff, and at locations along the pipeline.

Each of the plans also includes detailed information on the ICS, includes the Environmental Health and Safety Policy, regulatory background, and documents the approach to training and exercises.

ERPs are utilized in coordination with the Control Point and Field Guide manuals which provide complementary information specific to the spill location including predetermined control points and response tactics.

ERPs are available for the TMPL (including pump stations), terminals (Edmonton, Kamloops, Sumas, and Burnaby) and the Westridge Marine Terminal. These plans detail prescriptive procedures, activities, responder health and safety, spill/site assessments, internal and external notifications.

WCMRC's current mandate includes response to a spill in the marine environment at the Westridge Marine Terminal. The Westridge Marine Terminal also serves as a base for a WCMRC response vessel, which is why KMC filed a redacted copy of the existing Emergency Response Plans publicly (Filing ID A63573). In Ruling No. 50 (Filing ID A4G5I9) the NEB determined that it was "satisfied that sufficient information has been filed from the existing EMP documents to meet the Board's requirements at this stage in the process."

Trans Mountain is a founding member of WCMRC, the TC-certified marine spill response organization with a mandate to respond to spills in navigable waters on the BC coastline. WCMRC's mandate is to ensure there is a state of preparedness in place and to mitigate the impact when an oil spill occurs.

WCMRC is certified to Tier 4, which is the highest certification level available to a Canadian spill response organization and has more than the capacity required to respond to an oil spill up to 10,000 tonnes.
Engagement program. In addition, the feedback received has been incorporated into designs to take into account the unique and varying needs of the communities along the Project corridor, and to be responsive and adaptive to the feedback received throughout the various stages of the project.

As part of the stakeholder engagement program, Trans Mountain has implemented, and continues to conduct an open, transparent, and inclusive process to ensure that the views and concerns of Aboriginal groups, government, communities and stakeholders will ensure these views are included in our plans and legacies for the proposed Expansion Project and Facilities Application.

Issues/Concerns

Trans Mountain is committed to undertaking open and thorough engagement with Aboriginal groups and stakeholders along the pipeline route and marine corridor. Extensive dialogue with landowners, First Nations, local government, and other affected parties has been a foundation of our engagement strategy.

Opportunities for Input on Marine

For incidents involving the Fraser River or Burrard Inlet, our spill response contractors such as WCMRC have hazing equipment that can be deployed. The sooner a wildlife impact is identified, the healthier it is, and the faster it will progress through the wildlife care centre and return to the wild.

In emergency response, a wildlife branch of the operations section forms within the Inland Oil Spill Coordinating (ICS). KMC can only speak to incidents where it would be the responsible party. Spills from another source such as a tanker would involve a different responsible party.

Notification protocols are among the topics Trans Mountain plans to engage on as part of the enhancement of the current Emergency Management Program (EMP) to accommodate the proposed expansion.

TABLE B-1  Cont'd

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Notify their immediate supervisor and provide assessment results.</td>
</tr>
<tr>
<td>2.</td>
<td>Dispatch field personnel to the site to confirm discharge and conduct preliminary assessment.</td>
</tr>
<tr>
<td>3.</td>
<td>Notify the Control Centre and regional office/Qualified Individual.</td>
</tr>
<tr>
<td>4.</td>
<td>Appropriate actions taken by the Control Centre personnel may include, but are not limited to:</td>
</tr>
<tr>
<td>5.</td>
<td>Shut down affected line segment if there is an indication of a leak.</td>
</tr>
<tr>
<td>6.</td>
<td>For emergency incidents affecting the Fraser River or Burrard Inlet, KMC personnel would contact Canada Coast Guard and Marine Communications and Traffic Services (MCTS) at 604.775.8920 and Port Metro Vancouver at 604.663.5988.</td>
</tr>
</tbody>
</table>

For emergency incidents affecting the Fraser River or Burrard Inlet, KMC personnel would contact Canada Coast Guard and Marine Communications and Traffic Services (MCTS) at 604.775.8920 and Port Metro Vancouver at 604.663.5988. A more detailed response is provided in Port Metro Vancouver’s Incident Management Plan under the Marine Response Program, Section 13.0 – Wildlife Care of Westridge Terminal Emergency Response Plan (NEB Filing ID A4D3F1) Answer provided by PMV at Tri Cities Emergency Management Workshop at Fraser River Discovery Centre on May 13, 2015:

PMV role in emergency response

Once notified, Emergency Management BC typically undertakes municipal notification, however, there are many instances where Trans Mountain may have already been in contact with municipalities, such as prior pipeline projects. The first step in many incidents is to confirm that an emergency condition exists. Reports may come from a number of sources including automated detection systems, on-site KMC or other Personnel, and the pipeline community. Immediate notification is a key element of any emergency response action. The health and safety of employees and the public is paramount and, as a result, immediate notification is essential.
Marine Consultation Summary No. 1
January 5, 2015

APPENDIX C
January 2, 2015

Dear Neighbour,

For more than two and a half years, we have been talking with and listening to people in our pipeline communities to hear their questions and concerns and address their feedback. We want to continue the conversation.

This letter provides you with some information about next steps and how you can continue to provide us your feedback. Most recently, we hosted a Telephone Town Hall on December 3, 2014 — and we thank those who participated. The feedback we receive makes our Project better. A recap of the town hall can be found on our blog at www.blog.transmountain.com - it is titled Recap: December 3rd Telephone Town Hall.

**Ongoing Community Engagement**

As set out by the NEB, the next step in the regulatory review process is a round of Information Requests, Motions and Comments. This information exchange will occur in Q1 2015.

In late spring of 2015, we will be back in the community to continue our ongoing dialogue, including sharing information about detailed engineering and seeking input as we continue to develop our plans in anticipation of construction, should the Project be approved.

As we prepare to revisit communities, we have heard from some about the format and topics they are interested in. We would like to hear from you. Please fill out the brief survey (enclosed) to tell us how you would like to continue the conversation. Please respond in this postage paid envelope by Friday January 23, 2015.

**December 1, 2014 NEB Filing**

On December 1, 2014, we filed an update with the National Energy Board (NEB). This filing includes the *Westridge Delivery Pipelines Routing Update*, which addresses proposed routing for the delivery pipelines between our Burnaby Storage Terminal and Westridge Marine Terminal under Burnaby Mountain.

We looked at routing options between the two terminals – the proposed revised pipeline corridor through Burnaby Mountain by either a Horizontal Directional Drill (HDD) or a tunnel and the proposed revised alternative corridor through Burnaby streets. Given the strong public interest in this Project in the City of Burnaby, we are requesting the NEB examine both the proposed revised pipeline corridor using a tunnel option via Burnaby Mountain as well as the proposed revised alternative corridor through Burnaby streets in its public interest determination. It was determined from geotechnical information that the horizontal directional drill (HDD) construction method is not technically acceptable. However, from information gathered, we are able to confirm the feasibility of a tunnel under Burnaby Mountain. A tunnel option is preferred to avoid residential areas and urban infrastructure, to reduce environmental effects during construction and operation, and to minimize risk during operation.
If the Project is approved with the proposed tunnel option, we would consider relocating the existing Westridge Delivery Pipeline to the tunnel under Burnaby Mountain. Our proposal to relocate the existing pipeline is not part of the Application currently before the NEB and would be part of a separate regulatory application.

We look forward to receiving your response to the survey. In the meantime if you have any questions please do not hesitate to contact us at info@transmountain.com, 1.866.514.6700 or visit our website at www.transmountain.com.

Yours truly,

Lizette Parsons Bell
Project Lead, Stakeholder Engagement & Communications
Trans Mountain Expansion Project
Kinder Morgan Canada
Tell Us How You Want to Continue the Conversation

For more than two and a half years, we have been talking with people in our pipeline communities to hear and address their questions, concerns and feedback. We are looking for your feedback about how you want to continue the conversation. We invite you to participate in a brief survey. You can go online to www.transmountain.com/burnaby-survey or respond below and return to us in the pre-paid enclosed envelope.

1. Which of these would be of most interest to you (check all that apply)?
   ___ Telephone Town Hall
   ___ Online feedback forum
   ___ Panel discussion (in person and live broadcast)
   ___ Roundtable discussions
   ___ Community Open House
   ___ Speaker Series with Q&A
   ___ Radio Call-in Shows
   ___ TV Talk Shows
   ___ Webinar with Q&A
   ___ Workshops
   ___ One-on-One Meetings
   ___ Other – Please specify: _________________________________________________

2. What topics are of most interest to you (check all that apply)?
   ___ Climate Change
   ___ Construction
   ___ Consultation
   ___ Economic Benefits
   ___ Environmental Remediation
___ Health Considerations
___ Jobs and Employment
___ Marine Traffic
___ NEB Process
___ Nuisance Issues
___ Parks and Protected Areas
___ Property Values
___ Routing
___ Safety and Emergency Preparedness
___ Water Quality/Quantity
___ Other – Please specify: ______________________________________________________

3. Please tell us which area you live in so we can customize opportunities to each area.
___ Burnaby Mountain   ___ Westridge neighbourhood   ___ Other

4. Would you like to receive mail by post or email with updates and information? You can withdraw your consent at any time.

By entering my personal information, I consent to receive mail by post or via email from the survey author's organization based on the information collected.

___ Mail ___ Email

First Name ______________________
Last Name ______________________
Street Address _______________________________ ________
Postal Code __________________
Email Address __________________

Thank you for your feedback. We appreciate your time and input.

If you have any questions, we can be reached at info@transmountain.com or 1-866-514-6700. You can also follow us on Twitter @TransMtn.
Snider, Stephanie

From: Hobenshield, Lexa
Sent: Thursday, April 23, 2015 5:25 PM
To: Neighbourhood Information Session: June 3

Thanks for your patience. We have just today firmed up the date & time of our next neighbourhood information sessions. It will be the evening of June 3rd. There will be more information coming soon about the specifics.

In terms of progress on our plans, we continue work to optimize the design of the dock and terminal layout. On June 3rd, our project team will be on hand and would be pleased to provide you with an update and answer any questions you have.

I look forward to seeing you then. If you have specific questions or wish to discuss further, I welcome hearing from you.

Sincerely,
Lexa Hobenshield
Manager, External Relations Kinder Morgan Canada
Stakeholder Engagement & Communications Trans Mountain Expansion Project
P: 604.809.9869 | E: lexa_hobenshield@kindermorgan.com
Twitter: @TransMtn | @LexaHobenshield

Trans Mountain Expansion Project Office
Kinder Morgan Canada Inc.
2844 Bainbridge Avenue, PO Box 84028 Bainbridge, Burnaby, BC V5A 4T9
Toll Free: 1-866-514-6700 | E: info@transmountain.com | W: transmountain.com

From: Thursday, April 23, 2015 5:12 PM
To: Hobenshield, Lexa
Subject: ???

Lexa - can you please tell me what is going on? I sent you an e-mail in Jan. - no response. Then another one Apr. 7th - only received an auto response and nothing since. I'd appreciate knowing what is going on with the dock and if you are not available to tell me, can you put me on to someone who is.
Thanks for the note. When I had reached out in January, I was hoping to seek your input on engaging with the Westridge neighbours. (You may recall we issued a survey asking how you would like to receive information.) At that time, I had a brief window between regulatory steps, so apologies for not following up. We have been planning our next steps in the engagement program, so I should have a better idea what this looks like in the next week. I will circle back with you shortly.

I hope you are enjoying the lovely spring like weather.

Cheers! Lexa.
I was hoping that you might have some time to meet me for coffee on Friday afternoon if convenient for you. I know that the recent work on Burnaby Mountain received significant media coverage and you and your neighbours may have questions and concerns about it. I am interested in your thoughts about how we can best share information with you and seek the neighbourhood’s input to our plans in the coming months.

I also hope that you are planning to participate in this evening’s telephone townhall to ask Ian Anderson questions. (If you haven’t done so already, you can register for the townhall at www.transmountain.com – at the bottom of the page).

I look forward to hearing from you.

Sincerely,

Lexa Hobenshield
Manager, External Relations Kinder Morgan Canada
Stakeholder Engagement & Communications Trans Mountain Expansion Project
P: 604.809.9869 | E: lexa_hobenshield@kindermorgan.com
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Trans Mountain Crews & Equipment Gone from Burnaby Mountain

Burnaby (November 29, 2014: 2:00 pm) This morning, Trans Mountain finished removing the final pieces of supplies and equipment from the second of two worksites on Burnaby Mountain. This includes the removal of all equipment on Burnaby Mountain.

Earlier in the week, crews successfully completed the geotechnical investigations at one test hole on Burnaby Mountain to the goal depth of 183 metres, as well as geophysical testing in and around Barnet Marine Park. The depth reached at the second test hole was 70 metres.

Trans Mountain is confident we have obtained a sufficient level of information from the geotechnical and geophysical work completed over the past week, together with the engineering, geophysical and geotechnical work, and other data already compiled to complete our analysis. The work will be reflected in the December 1, 2014 filing to the National Energy Board (NEB); however ultimately it will be up to the NEB to determine.

Trans Mountain is in the process of cleaning up the worksites on Burnaby Mountain to the best of our ability under the current weather conditions. We have also been assessing the damages to the Burnaby Mountain Conservation area as a result of the protests and are willing and prepared to work with the City of Burnaby to return the area to prior condition. Trans Mountain is committed to minimizing any impacts and restoring, or compensating for, any disturbance on our worksites to Burnaby Mountain. With the current weather conditions it may require revisiting the site at a later date.

We recognize the impacts the work has had to neighbours and the community and we want to acknowledge all those who were involved in completing the work safely. Trans Mountain would also like to acknowledge the role of the RCMP in their enforcement of the injunction and court order and thank them for their professionalism in dealing with our crews and all those on the Mountain.

Ultimately, if the Project is approved, there will be no surface disturbance on Burnaby Mountain because the tunnel, at its deepest point, will be approximately 160 metres below surface. The tunnel option through Burnaby Mountain is a result of consultation with the community, its request to see the existing pipeline rerouted, and our objective to minimize disruptions to landowners, neighbours and road users.
September 25, 2014

Dear Neighbour,

You are receiving this letter as an important neighbour of the Westridge Marine Terminal in Burnaby. In December 2013, Trans Mountain filed a Facilities Application with the National Energy Board (NEB), seeking approval for the Trans Mountain Expansion Project. Subject to approval, the project will twin the existing Trans Mountain Pipeline, which has been in operation since 1953. Trans Mountain has been communicating and engaging with communities along the route for more than two years in order to further refine our routing and planning. Trans Mountain has operated in Burnaby for 60 years. Maintaining a positive, constructive and open relationship with our neighbours is a key priority both during our proposed expansion and into the future.

After engaging with residents of the Westridge community, we have heard loud and clear many of our neighbours in the area would prefer to see our new proposed pipeline routed through Burnaby Mountain. This would avoid the residential neighbourhood, along with city streets. We share this preference and, as you are likely aware, we have been attempting to perform the necessary environmental and geotechnical research to assess whether this option is technically viable. We are committed to ensuring the work is done with the least impact possible and to fully restore any areas we disturb. We would also like to explore deactivating the existing pipeline through the Westridge neighbourhood and rerouting it through Burnaby Mountain, should our studies and testing tell us it is feasible. The ability to route through Burnaby Mountain would avoid several private homeowners and minimize community disruptions.

We are also very conscious that if we are unable to conduct these necessary studies soon, we may have to pursue our alternate route through city streets in the Westridge neighbourhood. You may notice some crews in your neighbourhood doing survey work over the next week. As we have not yet been able to fully explore the Burnaby Mountain route, we need to continue our planning and work for the neighbourhood route as well. I cannot emphasize strongly enough this is not our preferred option, and we would much prefer to work together with residents in order to minimize impacts.

Working constructively with the City and with local residents has always been a key priority for Trans Mountain. We have had close to 150 early interactions with the City of Burnaby, but have yet to receive constructive feedback that would enable us to refine our routing based on the City’s preferences. Unfortunately, we have been unable to communicate openly with the City of
Burnaby in recent months. Instead, we are in a position where we are communicating indirectly through city solicitors, the city’s external legal counsel, and through numerous motions through various regulatory bodies, along with the BC Supreme Court.

Our hope is we will be able to continue with our studies, pending a ruling from the National Energy Board, that reinforces our rights to undertake these studies- and keep working to minimize impacts for the residents of Burnaby.

As always, we welcome any further questions or your thoughts and feedback as how to best optimize our route, minimize disruption and maximize safe operations. Please do not hesitate to be in touch at info@transmountain.com or 1.866.514.6700.

Regards,

Lizette Parsons Bell
Lead, Stakeholder Engagement and Communications;
Trans Mountain Expansion Project
August 27, 2014

Dear Neighbour,

As you are likely aware, Trans Mountain is proposing to twin its existing Trans Mountain Pipeline that has been providing safe and efficient transportation of petroleum products to the west coast for more than 60 years. For the Burnaby Storage Terminal to the Westridge Marine Terminal portion of the pipeline, based on feedback received from community residents, a trenchless route through Burnaby Mountain would be the least impactful to the surrounding community. Choosing a route through Burnaby Mountain would move this section of the pipeline away from residential areas, and avoid four private properties that the alternate route would cross near the Westridge Marine Terminal. To confirm the pipeline location, further on-the-ground field work is required on City of Burnaby owned lands. We want to tell the people of Burnaby if our preferred route is viable and therefore need to undertake this preliminary exploratory work.

Over the past two years we have been undertaking field work and are currently in the field with continued studies along our proposed route. This work would be an extension of this ongoing assessment. The work in Burnaby would begin immediately and occur over the next several weeks, with the exception of Archaeology, which will continue into December. The studies will consist of two types of investigations:

1. **Environmental Field Studies**

   We are committed to minimizing our impact. The work includes several categories of studies. Most involve observation but a few include minor surface disruption (e.g. with a hand auger or shovel). Any disruption will be restored immediately following the disturbance. Where possible, access will be on foot and on existing road or pathways to minimize environmental disturbance. This work will be used to assess feasibility of routing and potential mitigative strategies. A brief description of the surveys is below.

   **General Field Study** - non-intrusive field visits along the study corridor to gain a broad understanding of the study areas in the vicinity of the study corridor. This includes visualizing the information
pertaining to the existing field conditions, assessment of the accessibility of the area, pattern and distribution of watercourses, and vegetation and its composition.

**Watercourse Assessment** – will gather data to support modelling channel characteristics, water level and flow regime, and fish habitat information. Data will be gathered regarding a number of aspects including, gradients, channel and bank widths, bank heights and slope, fish spawning locations, pools versus riffles, substrate types, flow volumes, overhanging vegetation, channel alignment, presence and locations of oxbows and overflow channels, and high water marks. If deemed necessary by the study crew, some scientific information may also be obtained regarding fish species presence/absence.

**Wildlife Survey** - identify potential wildlife presence and site-specific wildlife habitat issues associated with the construction and operation of the Project. These may include breeding bird, amphibian, raptor and waterbird surveys, as well as a general review of habitat suitability and wildlife habitat features. Data collected (by walking along the study area will include: all wildlife detected (heard/seen/sign); any habitat feature (e.g., stick nest); information on habitat; photographic documentation; and GPS coordinates.

**Terrestrial Ecosystem Mapping Survey** – a shovel will be used to dig a small hole (a shovel blade wide and 30 cm deep) to look at the soils. The hole will be filled back in and vegetation replaced within an hour of digging the hole to minimize disturbance. The crew will collect difficult to identify plants following best practice guidelines for rare plant surveys, to only collect a single plant when there are more than 50 of them. These surveys will collect information on dominant vegetation, wildlife habitat and soil properties.

**Vegetation Survey** - conduct and identify potential vegetation issues or rare plants, rare ecological communities and invasive species encountered by the Project. Rare plant surveys will focus on segments of the study area, which traverse native vegetation with high rare plant potential as well as representative habitats. Plant biologists will walk the study area recording every plant species observed (including mosses and lichens where possible) and will frequently stop to confirm uncertain species. When rare species are discovered, the biologists will: determine the area and abundance of the population; record detailed site information; take photographs; record GPS coordinates; and make a sketch. During the rare plant surveys, weeds and additional species commonly considered invasive or weedy (whether they are agronomics, native species or introduced species) and their density and distribution will be recorded for all locations where they occur within the study area.
Nonvascular surveys (e.g. fungi, lichens) may be recommended for select areas of high sensitivity, where the potential for nonvascular species at risk exists or sensitive sites of high rare non-vascular plant potential are identified. Non-vascular plant surveys will be conducted in areas identified as having a high potential to contain rare or unique species. In these areas intensive site-based collecting would be undertaken. Voucher specimens or portions of specimens will need to be taken in order to identify nonvascular plant species.

Soil survey - map the soils and provide baseline soils and landscape information for each soil map unit delineation within the study area to inform construction and operation of the Project. The soil survey will be conducted using a hand held hand auger. Soil investigations within the study area will involve digging soil pits to a maximum depth of 1.2 m with a hand auger with a diameter of 0.05 m to map soil resources. Approximately two to three holes will be dug every kilometer. All holes will be filled in after the soils are described in detail and no soil samples will be taken offsite as part of the will field surveys.

Archaeological Survey - identification and assessment of new and previously recorded archaeological and paleontological resources within the study area. The number of sites to visit will be based on archaeological site potential. All areas of moderate to high archaeological potential within the study area will be assessed during ground reconnaissance fieldwork. Ground reconnaissance may include shovel testing, up to 1 m in depth. The visual inspection will be augmented by subsurface testing in areas of moderate to high archaeological potential. All identified sites will be mapped, photographed, recorded, and the sites’ relationship to the proposed developments impact zone will be determined.

Traditional Knowledge Studies - The collection of Traditional Ecological Knowledge (TEK) with potentially affected Aboriginal communities is typically facilitated through their participation in the biophysical field studies for the Project as described above. The field studies for the Project will be discussed with Aboriginal communities that indicate an interest in participating in these studies. These studies include watercourse assessments, wildlife surveys, vegetation, rare plant and rare ecological community surveys.

2. **Geotechnical assessment:**

As part of its feasibility investigations, Trans Mountain’s contractor plans to drill six 6-inch geotechnical boreholes in the Burnaby Mountain area. While four of these boreholes are on private property, two are planned within the Burnaby Mountain Conservation Area. In addition, the contractor
will also complete geophysical surveys using both seismic refraction and electro-resistivity tomography.

A 10m by 20m cleared area is required to complete safe drilling operations. Vegetation disturbance will be minimized. This work will include a heli-staging area and additional support vehicles. A 20m by 8m staging area is planned west of Centennial Way. On completion of drilling, Trans Mountain will restore the site to as close to their original condition as practical.

To minimize the period of drilling within the Burnaby Mountain Conservation Area, drilling is planned for 24 hours per day in two 12 hour shifts during the investigation. Previous tests indicate that noise levels generated by this work are not anticipated to exceed Burnaby City bylaw limits. During this work we will ensure public safety.

Geophysical surveys are also proposed. These are non-intrusive survey using electro-resistivity tomography and seismic refraction. These may include an intermittent sharp banging sound and laying temporary cables along the ground surface. This work will try to avoid brushing, although minimal vegetation removal may be required where dense vegetation is encountered.

This investigation will form part of a wider geological study with SFU, to better understand the subsurface geology of Burnaby Mountain area. This wider study is sponsored by Trans Mountain and will use the results of the drilling program. The results will be available for public use.

Should you have any questions or if you would like to meet to discuss this work; we would welcome your inquiry to info@transmountain.com or 1.866.514.6700.

Sincerely,

Carey Johannesson
Lead, Land Team
As representatives of the Westridge neighbourhood

Dear for the Westridge neighbourhood,

**RE: Proposed Trans Mountain Expansion Project – Technical Update #2 Filing to National Energy Board**

As part of our commitment to continuing to work with the community on the proposed Trans Mountain Expansion Project, attached is information outlining sections of our August 22, 2014 Technical Update #2 Filing to the National Energy Board as they relate to Burnaby.

This Update provides additional information about the Project, with a focus on routing, risk assessment, and engineering design. Routing details on the Westridge Delivery Line will be filed in late 2014 and are not included in this update. We will continue to keep you informed.

**Additional Information**

The entire August 22, 2014 filing can be viewed on the National Energy Board’s website at [www.neb-one.gc.ca](http://www.neb-one.gc.ca) and will be available on the Trans Mountain website shortly.

Additional information about the proposed Trans Mountain Expansion Project is available on our website [www.transmountain.com](http://www.transmountain.com).
If you have any questions or would like to set a meeting to discuss this filing, please contact me at 604-809-9869 or lexahobenshield@kindermorgan.com. Should you require clarification on any aspect of this filing or wish to meet to discuss this filing, we would be pleased to do so at your convenience.

Sincerely,

[Signature]

Lexa Hobenshield
Kinder Morgan Canada, External Relations manager
Stakeholder Engagement & Communications, Trans Mountain Expansion Project
Part 2.1 Facilities Update – Burnaby Mountain Terminal

In this filing Trans Mountain provides an update on the conceptual design development for the proposed expansion of Burnaby Terminal. Minor changes include removal of proposed Tank 79 and existing Tank 73, and increasing in the capacity of proposed Tank 74 and 76.

These changes reduce the potential geographic impact in the unlikely event of a fire emergency at the Terminal, moving the area of potential impact further away from the residential neighbourhood to the south and east of the Burnaby Terminal property.

Engineering development activities will continue until early 2015. Prior to detailed engineering design commencing in Spring 2015, further refinements to the Burnaby Terminal conceptual design are expected.

Part 2.2 Facilities Update – Westridge Marine Terminal

In this filing Trans Mountain provides an update on the conceptual design development for the proposed expansion of Westridge Marine Terminal (WMT).

Layout
Trans Mountain has been working to optimize the conceptual layout of WMT to reduce the overall footprint.

A reduction of the footprint of the expansion at WMT has been achieved by shifting Berth 1 loading platform (and the vessel at Berth 1) approximately 50 m to the east, shifting Berth 2 loading platform (and the vessel at Berth 2) approximately 30 m to the east, shifting the central core of the dock complex slightly to the east and canting the main access trestle to be perpendicular to the Berth 1/2 access trestle, and eliminating both the two planned synthetic crude tanks and the relief tank, and reorganizing the remaining infrastructure on the foreshore to be more efficient.

These changes will reduce the visual impact of the proposed WMT expansion to residents of the Westridge neighbourhood and reduces the new foreshore infill area by 45%, subject to completion of geotechnical work.
Trans Mountain, working with two of the leading international vendors of vapor recovery technology, has made progress on further definition of the scope of the two proposed vapor recovery units. This work means that there is no need for proposed synthetic crude tanks which were to have been used for absorption of the regenerated VOC vapor stream. The proposed vapor recovery systems are anticipated to provide very high capture and recovery efficiencies. The revised design concept and emissions projections have been used in the updated air quality modelling.

**Pipeline Surge**

Although Trans Mountain has not yet completed the Burnaby-Westridge delivery pipelines transient hydraulic study ("surge study"), initial analysis indicates that the proposed surge relief tank is no longer required.

Engineering development activities will continue until early 2015. Prior to detailed engineering design commencing in Spring 2015, further refinements to the WMT conceptual design are expected.

**Part 3.0 Terrestrial and Terminals Air Quality Update**

This filing includes an updated air quality assessment based on updated design changes at Burnaby and Westridge Marine Terminals.

As the detailed engineering for the Project evolves, the assumptions used in the technical air quality assessment have been refined. This technical update reflects the improvement to a number of assumptions and provides the summary of the updated modelling parameters, assumptions and dispersion model results.

With this new information, Trans Mountain is able to meet all the applicable Metro Vancouver ambient air quality objectives and odour detection thresholds. Additional modelling is planned in late 2014 to further inform engineering design and support vapor recovery equipment vendor selection.

**Part 4.0 Preliminary Marine Fish Habitat Offset Plan**

The Preliminary Marine Habitat Offsetting Plan includes information on preferred offsetting methods, and additional offsets identified during consultation with interest groups. The plan is based on preliminary engineering and Westridge layout and will continue to be developed as detailed design progresses.

The final offsetting strategy will be determined through discussions with DFO, participating Aboriginal communities and other interested parties. Trans Mountain is committed to working with all interested parties to identify the most appropriate means of offsetting impact to marine fish and fish habitat. The offsetting measures presented in the submitted report are intended to form the basis for initiating discussions with various participating groups.
Follow-up meetings will be held with specific stakeholders and a second round of Offsetting Workshops will be held in 2015, prior to the submission of the final marine fish habitat offsetting plan. All additional offsetting measures identified during future consultation will be discussed with DFO, Port Metro Vancouver and Transport Canada.

It is anticipated that these discussions may lead to the identification of additional options, or to the refinement of the measures presented in the report. Additional offsets will be examined for feasibility and may be included in future plans.

Part 8.0 Data on Recreational Boat Traffic in Burrard Inlet

The proposed Trans Mountain Expansion Project (TMEP), with commensurate future increase in the number of tanker calls into Burrard Inlet to load at an expanded Westridge marine terminal, has raised concerns among recreational boaters about the safety of these small vessels.

A review of marine recreational activities in Burrard Inlet shows that while over 5,250 boats may be at moorage within English Bay and Burrard Inlet, there is a seasonal pattern to the use of these vessels. On average, recreational boats spend considerable time at berth. When travelling on the water, these vessels are observed by Radar and Automatic Identification System (AIS), if fitted, by Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS) and other vessels in the area.

Several recommendations proposed by Trans Mountain are under review by the Termpol Review Committee that will, if accepted, further enhance the safety of all mariners in the central harbour. This includes demarcation of a shipping route between the Second Narrows and Port Moody, giving a wide berth to the expanded Westridge marine terminal. The dock complex itself will have navigation marks and lights, and the oil spill booms around the vessels will be marked in a similar fashion. This will ensure that all marine users are able to identify the area during day or night and keep clear. In addition, Trans Mountain has requested Transport Canada to expand outreach activities at marinas in order to improve the level of information amongst boaters in order to benefit all users of these waterways.

It is concluded that current and already proposed future additional safeguards are sufficient to comprehensively mitigate potential effects of TMEP on marine recreational vessels.

Part 9.0 Westridge Spill and Clean-up: Effect on Local Property Values

In response to concerns about reduced property values as a result of the proposed Trans Mountain expansion project, Trans Mountain engaged Dr. Tsur Somerville to conduct a review of the effect on local property values from the Westridge Spill and Clean-up.

Dr. Somerville, using data from Landcor, provided an analysis of the impacts from the Westridge spill on property values in the Westridge community, compared to other adjacent communities.
Study methodology used hedonic (regression) analysis to distinguish the property value impact from the pipeline and spill from other possible influences including time and housing type. His analysis found that while there may have been short-term value reductions, there were no permanent negative effects on either property prices or assessed values.

In addition to this filing, a follow-up seminar for area relators is being organized to help inform this group of stakeholders who frequently have questions about this topic.

A follow-up study is being completed addressing potential property value impacts from proximity to the existing Trans Mountain pipeline. These results will be available later in 2014.
Hello,

As part of our commitment to keep you informed on the proposed Trans Mountain Expansion Project, I am pleased to provide you with an update about a recent filing with the National Energy Board. On August 1, 2014 Trans Mountain filed Technical Update No. 1 and Consultation Update No.2, which contain the following sections:

**Part 1: Routing Update** expands on the corridor revisions under consideration since filing the Application in December 2013, and as identified in NEB IR’s No. 1.12, 1.40, and 1.84. Corridor revisions include 3 in Alberta, 3 in BC Interior (Hargreaves to Hope) and 10 in BC Lower Mainland (Hope to Burnaby).

**Part 2: Risk Assessment** is in response to various intervenor information requests and the NEB IR No. 1.81a, where Trans Mountain committed to provide the results of the risk assessment for Line 2 and the new Westridge delivery pipelines. It is also in response to NEB IR No. 1.81b, where Trans Mountain committed to provide a risk ranking for the various wall thicknesses for the new pipeline segments. The Report also addresses mitigation strategies that are being developed to either eliminate risk completely or significantly reduces it.

**Part 3: Human Occupancy and Resource Use (HORU)** provides an update on land uses for revised corridor (Burnaby to Westridge delivery segment only) in response to the NEB’s June 3rd information request to Trans Mountain.

**Part 4: High-Sensitivity Wetland Areas** provides an overview of High-Sensitivity Wetland Areas for the Lower Mainland in response to Environment Canada IR 1.041. Wetlands of Special Concern, as per Environment Canada request, will be included in Technical Update No. 2, which will be filed by August 22, 2014.

**Part 5: Consultation Update No. 2** provides an update to Public Consultation, Aboriginal Engagement and Landowner Relation activities for the period of January 1 to April 30, 2014. Our next consultation update is planned for Q1 2015.
We will continue to provide you with information as the Project progresses. If you have any questions, please contact me directly by email at lexa_hobenshield@kindermorgan.com or phone at 604. 809.9869.

Regards,

Lexa Hobenshield
Manager, External Relations Kinder Morgan Canada

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