



File OF-Fac-Oil-T260-2013-03 02  
16 April 2014

To: Intervenor and Trans Mountain Pipeline ULC

**Hearing Order OH-001-2014**  
**Trans Mountain Pipeline ULC (Trans Mountain)**  
**Application for the Trans Mountain Expansion Project (Project)**  
**Draft conditions and regulatory oversight**

On 2 April 2014, the National Energy Board (Board) issued [Hearing Order OH-001-2014](#), convening a public hearing to assess Trans Mountain's proposed Project.

Section 3 of the Hearing Order indicated that the Board would issue draft conditions by 17 April 2014. Having completed a preliminary review of the Project application as filed by Trans Mountain, the Board is releasing the draft conditions in Appendix 2.

Participants are reminded that, at the end of the hearing process, the Board must submit a recommendation to the Minister of Natural Resources about whether a certificate of public convenience and necessity should be issued for the Project. Regardless of the Board's recommendation, the *National Energy Board Act* (NEB Act) requires that all conditions the Board considers necessary and desirable in the public interest, should the Project be approved by the Governor in Council, be included with the recommendation. Releasing draft conditions in advance of a recommendation is not an indication of the Board's forthcoming recommendation to either approve or to deny the Project application.

Any order or certificate issued by the Board can include conditions. Conditions outline requirements that a company must meet in relation to a project. The Board's standard conditions require companies to implement all of the commitments and undertakings as stated in a project application and/or hearing. Additional conditions are included to address issues specific to a project. All conditions imposed by the Board are enforced pursuant to the NEB Act.

The draft conditions in Appendix 2 are based on the content of the 16 December 2013 Project application. In releasing these draft conditions early in the process, the Board is providing all participants with information about how potential concerns with the Project may be addressed. Other ways of addressing potential concerns are discussed in Appendix 1 *Verifying compliance throughout the project lifecycle*. Participants should expect the draft conditions to change

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significantly during the hearing process as new evidence is filed and assessed by the Board. In addition to modifications to these conditions, participants can expect new conditions to be added, including those covering new topics (e.g., if a topic is not sufficiently addressed to the Board's satisfaction by future evidence). Potentially, certain conditions may also be removed (e.g., if the condition topic is addressed to the Board's satisfaction by future evidence).

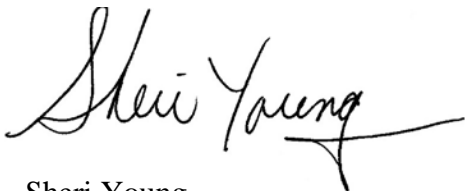
These draft conditions are being released for information purposes only and the Board is not seeking comments on them at this point in the process. The Board will release revised draft conditions on or before 3 December 2014. At that time, intervenors and Trans Mountain will be invited to provide comments on those conditions in their written argument-in-chief.

The release of the draft conditions is not intended to restrict what may be asked by participants in information requests or filed in evidence.

The Board is mindful that the Project is part of Trans Mountain's larger system of pipelines and facilities. The Board regulates Trans Mountain's system through comprehensive regulatory oversight. This oversight is used to regulate the existing system and, should the Project be approved, the Board will regulate the Project as it is integrated into that system. An outline of the Board's regulatory oversight is provided in Appendix 1.

If you have any questions about the Board's regulatory oversight or about the hearing process for the Trans Mountain Expansion Project, please contact the Process Advisor Team at 1-800-899-1265 or by emailing [transmountain.hearing@neb-one.gc.ca](mailto:transmountain.hearing@neb-one.gc.ca).

Yours truly,

A handwritten signature in black ink, reading "Sheri Young". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Sheri Young  
Secretary of the Board

Attachments

## **Appendix 1                      Verifying compliance throughout the project lifecycle**

The National Energy Board (Board) holds its regulated companies accountable for the protection of the environment, keeping people and communities safe, worker safety, and facility security throughout the lifecycle of each pipeline or project.

Each company is held accountable for complying with requirements, including, but not limited to:

- applicable acts and regulations (e.g., the *National Energy Board Act* [NEB Act] and the *National Energy Board Onshore Pipeline Regulations* [OPR]);
- applicable standards (e.g., Canadian Standards Association), guidelines, regulatory and advisory letters, and best practices;
- company commitments and undertakings as stated in project applications and/or hearings;
- approval conditions included in Board certificates and orders; and
- company management systems and protection programs (e.g., pipeline integrity, environmental protection, safety, emergency management, security) established in compliance with the OPR.

The Board verifies a company's compliance with these requirements through activities including, as appropriate, company manual and report reviews, compliance meetings, inspections, audits, emergency response exercise evaluations, emergency procedures manual reviews, and incident investigations.

When a deficiency in a program, or a non-compliance to a regulation, is identified, an immediate correction is required (when possible) by the company. If the situation cannot be corrected immediately, the Board uses a range of enforcement tools which include:

- notices of non-compliance;
- corrective action plans;
- Inspection Officer Orders (including stop-work orders);
- Board-issued Orders (including Safety Orders that may restrict pipeline operations and activities);
- Administrative Monetary Penalties;
- suspension or revocation of a company's authorization to operate; and
- criminal prosecution.

The Board's enforcement tools are not mutually exclusive and more than a single measure may be used depending on the situation.

## **Condition compliance and leave to open**

The Board may impose conditions on any order or certificate it issues. Conditions may have to be met at different phases of the Project:

- before starting construction;
- as construction progresses;
- before starting operations; or
- after starting operations.

The requisite timing depends on the subject matter and nature of each condition.

If a company fails to comply with a condition, the Board may use enforcement tools, as outlined above, to obtain compliance. The Board will not allow a company to continue with the project schedule and planned project activities until the conditions related to the relevant project phase are met. When a condition requires a company to make a filing “for approval”, a company must receive formal approval, by way of a Board letter, prior to proceeding.

The typical condition filing, assessment, and follow-up process is outlined at a high level below:

- A company must file the required information by the deadline set and tracked by the Board.
- The Board’s technical specialists review the condition filing to assess whether the company is in compliance, and whether the goals that the condition sought to achieve have been met. When a condition is “for approval”, the specialists will provide advice to the Board.
- The Board may seek additional information through information requests or formal meetings with the company and/or may direct the company to undertake additional steps to meet the goals the condition was set out to achieve.
- The Board’s operations staff may follow-up with field inspections to further verify condition compliance.

All of a company’s condition filings are publicly available on the Board’s website in the online Regulatory Document Index (i.e., the Public Registry), as is the Board’s formal correspondence with the company related to each condition.

If a company wishes to depart from an approved condition, commitment, or undertaking, it typically must apply to the Board to do so. This type of application and any supporting filings, as well as formal correspondence from the Board in the course of the Board’s assessment of the application, would be publicly available on the Board’s online Regulatory Document Index.

For new pipelines and facilities, the Board often requires companies to also apply, under section 47 of the NEB Act, for leave to open their facilities. This is a further step that occurs after all construction and pre-operations conditions have been met and the company wishes to begin operating its facility or pipeline. The Board reviews a company's submissions for leave to open and may seek additional information from the company. Before granting approval to operate, the Board must be satisfied that the facility or pipeline has been constructed in compliance with requirements and that it can be operated safely. The Board can impose further terms and conditions on a leave to open order, if needed.

## **Construction**

Prior to construction, the Board may review key company program manuals and may order a company to modify these manuals if necessary for safety or environmental reasons, or if it is in the public interest to do so. These manuals could include pressure testing, construction safety, environmental protection, and emergency procedures manuals. During construction, the Board requires companies to have qualified inspectors onsite to oversee construction activities. The Board also conducts its own inspections to verify that construction activities meet the conditions of the project approval and other applicable regulatory requirements, and to observe whether the company is implementing its own commitments.

## **Post-construction**

Once construction is complete, companies are required to restore the right-of-way and temporary work areas "to a condition similar to the surrounding environment and consistent with the current land use" (OPR section 21). The Board requires companies to monitor the right-of-way and, for most projects, file post-construction monitoring reports that identify any environmental issues caused by construction activities and what the company plans to do about unresolved issues. The Board also conducts post-construction inspections to verify right-of-way conditions and regulatory compliance.

## **Operations and maintenance**

During the operational phase, companies conduct monitoring and maintenance activities of pipelines and facilities, including running measurement tools through the pipeline and conducting investigative digs where anomalies are found to ensure the ongoing integrity of the pipeline. Companies are also required to regularly check for signs of pipeline leaks or impacts to the land along the right-of-way, such as slope movement, erosion, compaction, weed infestations, and right-of-way infringements by third parties. When issues are identified, the Board can require further action from a company to correct the situation. The Board also assists in addressing and resolving landowner complaints.

Board staff monitor company compliance with the approval conditions and other regulatory requirements throughout the operating life of regulated facilities. To evaluate company performance and compliance, the Board will, where appropriate, conduct compliance meetings;

audit a company's management systems and protection programs; and/or inspect a company's facilities, operations, and maintenance activities.

### **Management systems**

The Board mandates pipeline companies to operate in a systematic, comprehensive, and proactive manner that manages risks. The Board expects that companies have fully developed and implemented management systems and protection programs that provide for continual improvement. A carefully-designed and well-implemented management system supports a strong culture of safety and is fundamental to keeping people safe and protecting the environment.

As required by the OPR, companies must establish, implement, and maintain adequate and effective management systems and protection programs in order to anticipate, prevent, manage, and mitigate anything that may adversely affect the safety and security of the company's pipelines, employees, the public, as well as property and the environment.

### **Emergency management, incidents, and spill remediation**

Each Board-regulated company must have an emergency management program that must include (in addition to general management system elements):

- the identification and analysis of potential hazards;
- the evaluation and management of risks associated with all hazards;
- an up-to-date emergency procedures manual that is filed with the Board;
- liaising with agencies that may be involved in an emergency situation;
- taking all reasonable steps to inform all persons who may be associated with an emergency response activity on the pipeline of the practices and procedures to be followed;
- having a continuing education program for the police, fire departments, medical facilities, other appropriate organizations and agencies, and the public residing adjacent to the pipeline to inform them of the location of the pipeline, potential emergency situations, and the safety procedures to be followed in case of an emergency;
- procedures for the safe control or shutdown of the pipeline system in the event of an emergency;
- sufficient response equipment;
- training to instruct employees on the emergency procedures and emergency equipment; and
- a verifiable capability to respond to an emergency demonstrated through emergency response exercises.

In addition to compliance verification activities typically applied to other programs, Board staff conduct emergency response exercise evaluations and emergency procedures manual reviews to verify that companies are prepared to anticipate, prevent, manage, and mitigate emergency situations.

The Board maintains a proactive approach to incident prevention through its promotion of safety, pipeline integrity, and damage prevention programs. However, if an incident does occur, a company must report it to the Board immediately. For serious incidents, Board staff are deployed to monitor the company's response to verify that appropriate recovery, clean-up, and site restoration are conducted. The company must conduct, to the Board's satisfaction, a complete clean-up and remediation of any adverse environmental effects resulting from incidents or from historical contamination identified by the company in the course of pipeline operation activities, as per the Board's [Remediation Process Guide](#).

After repairs are made and the company has completed its own investigation, the company must file a detailed incident report with the Board. The Board shares responsibility with the Transportation Safety Board of Canada (TSB) for pipeline incident investigations. The Board investigates pipeline incidents to determine whether its regulations have been followed and if those regulations may need to be changed. The TSB may choose to investigate the cause and contributing factors; otherwise, these are also included in the Board's investigation.

**Appendix II: Draft conditions for the proposed Trans Mountain Expansion Project**

In these draft conditions, the following terms are defined as:

<b>Trans Mountain</b>	Trans Mountain Pipeline ULC
<b>NEB</b>	National Energy Board
<b>Project</b>	The proposed Trans Mountain Expansion Project, in all its components.
<b>for approval</b>	When a condition requires a filing for NEB approval, Trans Mountain must not commence the indicated activity until the NEB issues its written approval of that filing.
<b>including</b>	Use of this term, or any variant of it, is not intended to limit the elements to just those listed. Rather, it implies minimum requirements with the potential for augmentation, as appropriate.



<b>Miscellaneous / overarching conditions</b>	
<b>1</b>	<p><b>Condition compliance</b></p> <p>Trans Mountain must comply with all of the certificate conditions, unless the NEB otherwise directs.</p>
<b>2</b>	<p><b>General – environmental protection</b></p> <p>Trans Mountain must implement or cause to be implemented, at a minimum, all of the policies, practices, programs, mitigation measures, recommendations, and procedures for the protection of the environment included in or referred to in its Project application, subsequent filings, or as otherwise committed to during the OH-001-2014 proceeding.</p>
<b>3</b>	<p><b>General – engineering and safety</b></p> <p>Trans Mountain must cause the Project facilities to be designed, located, constructed, installed, and operated in accordance with, at a minimum, the specifications, standards, policies, mitigation measures, procedures, and other information included or referred to in its Project application or as otherwise committed to during the OH-001-2014 proceeding.</p>
<b>4</b>	<p><b>Project completion</b></p> <p>Trans Mountain must file with the NEB, <b>within 30 days after commencing operations</b>, confirmation, signed by an officer of the company, that the Project was completed and constructed in compliance with all applicable certificate conditions. If compliance with any of the conditions cannot be confirmed, the officer of the company must file with the NEB the reason(s) for this and the proposed course of action for compliance. The filing required by this condition must include a statement confirming that the signatory to the filing is an officer of the company.</p>
<b>5</b>	<p><b>Landowner complaint records</b></p> <p>Trans Mountain must create and maintain records, <b>for the life of the Project (from pre-construction to the end of operations)</b>, that chronologically track landowner complaints related to the Project. These records must include:</p> <ul style="list-style-type: none"> <li>a) a description of each complaint;</li> <li>b) how each complaint was received (e.g., telephone, letter, email);</li> <li>c) the date each complaint was received;</li> <li>d) subsequent dates of all contact or correspondence with each complainant;</li> <li>e) records of any site visits, monitoring, or inspections;</li> <li>f) contact information for all parties involved in each complaint;</li> <li>g) the date of each complaint's resolution; and</li> <li>h) if a complaint remains unresolved, a description of any further actions to be taken or a rationale for why no further action is required.</li> </ul>

	Trans Mountain must maintain these records for audit purposes and make them available to the NEB <b>upon request</b> . Trans Mountain must make available to a landowner, <b>upon request</b> , the records related to the complaint(s) that landowner made to Trans Mountain.
<b>6</b>	<p><b>Commitments tracking table</b></p> <p>Trans Mountain must implement the commitments contained within its commitments tracking table and must:</p> <ul style="list-style-type: none"> <li>a) file with the NEB, at the following times, an updated commitments tracking table: <ul style="list-style-type: none"> <li>i) <b>within 90 days after the certificate date</b>; and</li> <li>ii) <b>at least 30 days prior to commencing construction</b>;</li> </ul> </li> <li>b) update the status of the commitments and file those updates with the NEB <b>on a monthly basis until commencing operations, and quarterly during operations until all conditions are satisfied (except those that involve filings for the Project's operational life)</b>;</li> <li>c) post on its company website the same information required by a) and b), <b>using the same indicated timeframes</b>; and</li> <li>d) maintain at each of its construction offices: <ul style="list-style-type: none"> <li>i) the relevant environmental portion of the commitments tracking table listing all of Trans Mountain's regulatory commitments, including those from the Project application and subsequent filings, and conditions from received permits, authorizations, and approvals;</li> <li>ii) copies of any permits, authorizations, and approvals for the Project issued by federal, provincial, or other permitting authorities that include environmental conditions or site-specific mitigation or monitoring measures; and</li> <li>iii) any subsequent variances to any permits, authorizations, and approvals in d) ii).</li> </ul> </li> </ul>
<b>Conditions with initial filings due prior to commencing construction</b>	
<b>7</b>	<p><b>Joining Program</b></p> <p>Trans Mountain must develop a Joining Program and file it with the NEB <b>at least 30 days prior to conducting welding procedure qualification tests</b> for:</p> <ul style="list-style-type: none"> <li>a) field circumferential production, tie-in, and repair pipeline welds; and</li> <li>b) welding of Project facilities.</li> </ul> <p>The Joining Program must include:</p> <ul style="list-style-type: none"> <li>i) welder qualification requirements;</li> <li>ii) requirements for welding inspector qualifications and duties;</li> <li>iii) welding procedure specifications;</li> <li>iv) non-destructive examination (NDE) specifications;</li> <li>v) procedure qualification records for welding procedure specifications and NDE specifications;</li> </ul>

	<p>vi) a quality assurance program for field welds and welding procedures; and</p> <p>vii) any additional information that supports the Joining Program.</p>
<b>7a</b>	<p><b>Training and Education Monitoring Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 1 year prior to commencing construction</b>, a plan for monitoring the implementation and outcomes of Aboriginal, local, and regional training and education measures and opportunities for the Project. The plan must include:</p> <ul style="list-style-type: none"> <li>a) a description of, and rationale for selecting, the indicators that will be monitored to track the implementation of training and education measures and opportunities;</li> <li>b) the monitoring methods and schedule, including information and data sources for the indicators being monitored; and</li> <li>c) plans for consulting and reporting on the implementation and outcomes of training and education measures and opportunities with relevant Aboriginal, local, and regional communities; business; industry; community; and education and training organizations.</li> </ul> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing construction</b>, any updates to a) through c).</p>
<b>8</b>	<p><b>Aboriginal, local, and regional skills and business capacity inventory</b></p> <p>Trans Mountain must file with the NEB, <b>at least 1 year prior to commencing construction</b>, an Aboriginal, local, and regional skills and business capacity inventory for the Project. The skills and capacity inventory must include:</p> <ul style="list-style-type: none"> <li>a) a description of the information and data sources;</li> <li>b) a summary of Aboriginal, local, and regional skills and business capacity;</li> <li>c) an analysis of the Aboriginal, local and regional capacity for employment and business opportunities for the Project;</li> <li>d) plans for communicating employment and business opportunities to Aboriginal, local, and regional communities;</li> <li>e) a description of identified or potential skills and business capacity gaps, and any proposed measures to address them or to support or increase skills or capacity; and</li> <li>f) plans for communicating identified gaps regarding skills and business capacity with Aboriginal, local, and regional communities and businesses, and any proposed measures to support or increase skills or capacity.</li> </ul> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing construction</b>, any updates to a) through f).</p>
<b>9</b>	<p><b>Pre-construction caribou habitat assessment</b></p> <p>For areas of the Project that are within caribou ranges, Trans Mountain must file with the NEB for approval, <b>at least 6 months prior to commencing construction of any project component potentially affecting each caribou range</b>, a detailed caribou habitat</p>

	<p>assessment for each caribou range. The framework of the habitat assessment must use the components of critical habitat outlined in the proposed <i>Recovery Strategy for the Woodland Caribou, Southern Mountain Population</i> (2014). The habitat assessment must include:</p> <ul style="list-style-type: none"> <li>a) map(s) indicating the location of the habitat;</li> <li>b) a description of the amount of habitat and the existing habitat alteration, in hectares;</li> <li>c) a description of how Trans Mountain has taken available and applicable Aboriginal Traditional Ecological Knowledge studies into consideration in the assessment; and</li> <li>d) a description of the type of habitat characterized by the biophysical attributes of critical habitat, as defined in the recovery strategy.</li> </ul>
<p><b>10</b></p>	<p><b>Caribou Habitat Restoration Plan (CHRP)</b></p> <p>Trans Mountain must file with the NEB for approval, in accordance with the timelines below, preliminary and final versions of a CHRP for each potentially affected caribou range.</p> <ul style="list-style-type: none"> <li>a) <b>Preliminary CHRP - to be filed at least 6 months prior to commencing construction of any project component potentially affecting each caribou range.</b> This version of the CHRP must include: <ul style="list-style-type: none"> <li>i) the CHRP's objectives for each caribou range;</li> <li>ii) a list of criteria used to identify potential caribou habitat restoration sites;</li> <li>iii) a description of how Trans Mountain has taken available and applicable Aboriginal Traditional Ecological Knowledge studies into consideration in identifying potential caribou habitat restoration sites;</li> <li>iv) a conceptual decision-making tree(s) or process that will be used to identify restoration actions to be used at different types of sites. The decision process should be based on a literature review of caribou habitat restoration methods and their relative effectiveness, and address typical site factors that may constrain implementation;</li> <li>v) the quantifiable targets and performance measures that will be used to evaluate: the extent of predicted residual effects, CHRP effectiveness, the extent to which the objectives have been met, and the need for further measures to offset unavoidable and residual effects on habitat;</li> <li>vi) a schedule indicating when mitigation measures will start and the estimated completion date; and</li> <li>vii) a summary of Trans Mountain's consultation with appropriate federal and provincial authorities and any potentially affected Aboriginal groups regarding the preliminary CHRP. This summary must include any issues or concerns raised regarding the preliminary CHRP and how Trans Mountain has addressed or responded to them.</li> </ul> </li> <li>b) <b>Final CHRP - to be filed on or before 1 November after the first complete growing season after commencing operations.</b> This updated version of the CHRP must include:</li> </ul>

	<ul style="list-style-type: none"> <li>i) the preliminary CHRP, with any updates identified in a revision log that includes the rationale for any changes;</li> <li>ii) a detailed decision-making tree(s) or process that will be used to identify and prioritize restoration actions among selected habitat restoration sites;</li> <li>iii) a complete tabular list of caribou habitat restoration sites, including locations, spatial areas, habitat quality descriptions, site-specific restoration activities, and challenges;</li> <li>iv) maps or updated Environmental Alignment Sheets showing the site locations;</li> <li>v) a quantitative and qualitative assessment of the total area of direct and indirect disturbance to caribou habitat that will be restored, the duration of spatial disturbance, and the extent of the resulting unavoidable and residual effects to be offset; and</li> <li>vi) a summary of Trans Mountain's consultation with appropriate federal and provincial authorities and any potentially affected Aboriginal groups regarding the final CHRP. This summary must include any issues or concerns raised regarding the final CHRP and how Trans Mountain has addressed or responded to them.</li> </ul>
11	<p><b>Socio-Economic Effects Monitoring Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 6 months prior to commencing construction</b>, a plan for monitoring potential adverse socio-economic effects of the Project during construction. The plan must include:</p> <ul style="list-style-type: none"> <li>a) the factors or indicators to be monitored;</li> <li>b) the methods and rationale for selecting the factors or indicators;</li> <li>c) a description of the baseline, pre-construction socio-economic conditions;</li> <li>d) the monitoring methods and schedule, including third party data source identification;</li> <li>e) data recording, assessment, and reporting details;</li> <li>f) a discussion of how measures will be implemented to address any identified adverse effects, including: <ul style="list-style-type: none"> <li>i) the criteria or thresholds that will require measures to be implemented;</li> <li>ii) how monitoring methods and measures implementation to address adverse effects, as necessary, are incorporated into Construction Execution Plans; and</li> <li>iii) a description of the roles and responsibilities of construction prime contractors, sub-contractors, and community relations staff in monitoring socio-economic effects and implementing measures to address adverse effects;</li> </ul> </li> <li>g) a summary of Trans Mountain's consultation with potentially affected communities, Aboriginal groups, local and regional authorities, and service providers regarding the Socio-Economic Effects Monitoring Plan. This summary must include: <ul style="list-style-type: none"> <li>i) a description of any developed agreements or protocols;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>ii) any issues or concerns raised regarding the plan, and how Trans Mountain has addressed or responded to them; and</li> <li>iii) a list of, and explanation for, outstanding issues or concerns, and the steps that Trans Mountain will take to address or respond to them; and</li> <li>h) plans for regular consultation and reporting on effects during construction with potentially affected communities, Aboriginal groups, local and regional authorities, and service providers.</li> </ul>
12	<p><b>Worker accommodation strategy</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 6 months prior to commencing construction</b>, a worker accommodation strategy, developed in consultation with appropriate municipal or provincial authorities. The strategy must include:</p> <ul style="list-style-type: none"> <li>a) a final summary of all proposed accommodations, including the location of any temporary camp(s);</li> <li>b) the number of workers that will be housed; and,</li> <li>c) a description of how the plan addresses any concerns or requests raised in consultation with municipal or provincial authorities.</li> </ul> <p>In the event that temporary camp(s) are to be used, the strategy must also include:</p> <ul style="list-style-type: none"> <li>a) a description of how the potential environmental and socio-economic impacts have been assessed, and a description of all associated mitigation measures;</li> <li>b) copies of, or reference to, any mitigation or operational plans that will be required or implemented for the camp(s), including a description of how Trans Mountain has incorporated any additional mitigation measures into its Pipeline Environmental Protection Plan;</li> <li>c) copies of all appropriate municipal or provincial permits for any camp(s);</li> <li>d) copies or excerpts of all policies relating to the rules of conduct for workers housed at the camp(s);</li> <li>e) confirmation that all policies relating to the camp(s) will be provided to workers;</li> <li>f) confirmation that all policies relating to the camp(s) were made available to all local communities and other relevant service providers in proximity to any camp(s) that will be used for the Project; and</li> <li>g) a description of consultations with potentially affected residents and landowners where any camp(s) will be located: <ul style="list-style-type: none"> <li>i) a description of the information provided to local residents and landowners; and</li> <li>ii) a summary of all issues and concerns raised and the steps Trans Mountain has taken or will take to address the issues and concerns.</li> </ul> </li> </ul>

13	<p><b>Training and education monitoring reports</b></p> <p>Trans Mountain must file with the NEB, <b>at least 6 months prior to commencing construction, and every 6 months thereafter until completing construction</b>, monitoring reports for the implementation and outcomes of Aboriginal, local, and regional training and education measures and opportunities for the Project. The reports must include:</p> <ul style="list-style-type: none"> <li>a) a description of each training and education measure and opportunity indicator that was monitored, including duration, participant groups, education and training organization, and intended outcomes;</li> <li>b) a summary and analysis of the progress made toward achieving intended outcomes of each training and education measure and opportunity, including an explanation for why any intended outcomes were not achieved;</li> <li>c) a description of identified or potential training or education gaps, and any proposed measures to address them or to support or increase training and education measures and opportunities; and</li> <li>d) a summary of Trans Mountain's consultation with relevant Aboriginal, local, and regional communities; business; industry; community; and education and training organizations regarding the implementation and outcomes of training and education measures and opportunities for the reporting period. This summary must include any issues or concerns raised regarding these measures and opportunities and how Trans Mountain has addressed or responded to them.</li> </ul> <p>Trans Mountain must file with the NEB, <b>within 6 months after completing construction</b>, a final report.</p>
14	<p><b>Pipeline segment reactivation (Hinton to Hargreaves; Darfield to Black Pines)<sup>1</sup> – engineering assessment and certificate</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 6 months prior to commencing construction<sup>2</sup></b>:</p> <ul style="list-style-type: none"> <li>a) an engineering assessment for the above two pipeline segments, in accordance with Canadian Standards Association (CSA) Z662-11, Clauses 3.3 and 10.15.2.1; and</li> <li>b) a certificate with a supporting report issued by an independent body<sup>3</sup>, stating unconditionally that the above two pipeline segments:</li> </ul>

<sup>1</sup> Hinton, Alberta, to Hargreaves, British Columbia: 150 kilometres long; 609.6 millimetres (NPS 24) in outside diameter; built in 1953; deactivated in 2008.

Darfield to Black Pines, British Columbia: 43 kilometres long; 609.6 millimetres (NPS 24) in outside diameter, built in 1953; deactivated in 2004.

<sup>2</sup> In this condition, construction means any in-field activity that may have an effect on the environment and that is necessary for installing, or preparing to install, any component of the Project. Construction activities include clearing, mowing, grading, trenching, drilling, boring, and blasting. Construction activities do not include activities associated with routine surveying operations or data collection activities, such as geotechnical investigations (e.g., geophysical surveys, bore holes, and test pits).

<sup>3</sup> In these conditions, an independent body is an internationally recognized company or organization, such as Lloyd's Register or Det Norske Veritas, which is able to certify compliance to statutory requirements. The



	<ul style="list-style-type: none"> <li>i) are fit for service for the specified operating conditions<sup>4</sup>;</li> <li>ii) meet all applicable requirements of CSA Z662-11; and</li> <li>iii) will meet the hydrostatic test requirements outlined in CSA Z662-11, Clause 8, at any time during the certified period.</li> </ul> <p>The certificate must be valid for at least 5 years and be validated on an annual basis during the certified period.</p> <p>The supporting report must include the qualifications of the independent body, the justification used to grant the certificate, and the expiry date of the certificate.</p>
<b>15</b>	<p><b>Pipeline segment reactivation (Hinton to Hargreaves; Darfield to Black Pines) – new certificate and certificate validation</b></p> <p>Trans Mountain must file with the NEB, <b>before expiry of the previous certificate identified in Condition 14</b>, a new certificate with a supporting report issued by an independent body for the two pipeline segments identified in Condition 14. The certificate and report must demonstrate that the two pipeline segments:</p> <ul style="list-style-type: none"> <li>a) are fit for service for the specified operating conditions;</li> <li>b) meet all applicable requirements of CSA Z662; and</li> <li>c) will meet the hydrostatic test requirements outlined in CSA Z662 at any time during the certified period.</li> </ul> <p>The certificate must be valid for at least 5 years and be validated on an annual basis during the certified period.</p> <p>The supporting report must include the qualifications of the independent body, the justification used to grant the certificate, and the expiry date of the certificate.</p>
<b>16</b>	<p><b>Reactivation of the Niton Pump Station</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 6 months prior to commencing construction</b><sup>5</sup>, an engineering assessment for the Niton Pump Station, in accordance with CSA Z662-11, Clause 3.3. The engineering assessment must demonstrate that the pump station is fit for intended service and meets all applicable requirements of CSA Z662-11.</p>

independent body must have expertise in pipeline integrity. The NEB reserves the right to accept or reject the certificate. In addition, the NEB's decision is not contingent on the results of the certificate.

<sup>4</sup> In these conditions, operating conditions must include the Project-specific operating conditions, possible transient flow conditions, slack flow conditions, and effects on operating pressure due to temperature changes.

<sup>5</sup> See Footnote 2.



17	<p><b>Changing pipeline segment operating conditions (Hinton to Hargreaves; Darfield to Black Pines)<sup>6</sup></b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 6 months prior to commencing construction<sup>7</sup></b>, the following:</p> <ul style="list-style-type: none"><li>a) An engineering assessment in accordance with CSA Z662-11, Clause 3.3, for the above two pipeline segments for which Trans Mountain proposes to change in operation from the existing Line 1 to the proposed Line 2.  The engineering assessment must demonstrate that the two pipeline segments are fit for the intended service under the operating conditions of Line 2 and meet all relevant requirements of CSA Z662-11. The engineering assessment shall include a schedule of planned integrity monitoring activities.</li><li>b) A certificate with a supporting report issued by an independent body, stating unconditionally that the 43-kilometre-long, 762 millimetre outside diameter (NPS 30) pipeline segment from Darfield to Black Pines, British Columbia (built in 1957), is fit for the intended service under the operating conditions of Line 2.  The supporting report must include the qualifications of the independent body and the justification used to grant the certificate.</li></ul>
18	<p><b>Rare Ecological Community and Rare Plant Population Management Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, an updated Rare Ecological Community and Rare Plant Population Management Plan that includes:</p> <ul style="list-style-type: none"><li>a) a description of ecological communities and rare plants potentially affected by the Project, including results of all ecological community and rare plant surveys, including the supplemental surveys;</li><li>b) mitigation measures to be implemented for rare ecological communities and rare plants potentially affected during construction, including criteria describing when each measure will be applied and measurable goals for evaluating mitigation success;</li><li>c) details on the post-construction monitoring plan for rare ecological communities and rare plants, including survey methods, potential corrective measures, and the circumstances under which such measures will be applied;</li><li>d) a description of how Trans Mountain has taken available and applicable Aboriginal Traditional Land Use and Traditional Ecological Knowledge into consideration;</li><li>e) a summary of Trans Mountain's consultation with appropriate federal and provincial authorities, and any potentially affected Aboriginal groups, including any issues or concerns raised and how Trans Mountain has addressed or responded to them; and</li></ul>

<sup>6</sup> Hinton, Alberta, to Hargreaves, British Columbia: 151 kilometres long; 914 millimetres (NPS 36) in outside diameter; built in 2008.

Darfield to Black Pines, British Columbia: 43 kilometres long; 762 millimetres (NPS 30) in outside diameter; built in 1957.

<sup>7</sup> See Footnote 2.

	<p>f) confirmation that the relevant Environmental Protection Plans have been updated to include all mitigation measures in this Rare Ecological Community and Rare Plant Population Management Plan, including those resulting from the supplementary surveys.</p>
<b>19</b>	<p><b>Fugitive Emissions Management Plan for the Westridge Marine Terminal</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, a Fugitive Emissions Management Plan for the Westridge Marine Terminal. The plan must include:</p> <ul style="list-style-type: none"> <li>a) a description of the emission controls that will be employed to reduce fugitive emissions from tanker holds, marine vessel loading, and any other sources;</li> <li>b) procedures for verifying the capture and destruction efficiency of vapour recovery units and vapour combustion unit;</li> <li>c) quantification of fugitive emissions with vapour recovery units and vapour combustion unit during operations, including the methods used; and</li> <li>d) any additional mitigation measures to further reduce the fugitive emissions.</li> </ul>
<b>20</b>	<p><b>Fugitive Emissions Management Plan for pump stations</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, a Fugitive Emissions Management Plan for pump stations. The plan must include:</p> <ul style="list-style-type: none"> <li>a) a description of procedures for leak detection and selecting target leaking components;</li> <li>b) method(s) considered for quantification by measurement of leaks, and the rationale for the selected method(s);</li> <li>c) monitoring frequency for each target leaking component and parameters that will be measured;</li> <li>d) a decision framework that will be implemented to repair or replace leaking components;</li> <li>e) a description of record keeping procedures; and</li> <li>f) a discussion of additional mitigation measures that will be employed to minimize fugitive emissions.</li> </ul>
<b>21</b>	<p><b>Air Emissions Management Plan for the Westridge Marine Terminal</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, an Air Emissions Management Plan for the Westridge Marine Terminal. The plan must include:</p> <ul style="list-style-type: none"> <li>a) locations of air monitoring sites on a map or diagram, including the rationale for the locations selected and the timing for installation;</li> </ul>

	<ul style="list-style-type: none"> <li>b) methods and schedule for ambient monitoring of contaminants of potential concern in air (e.g., particulate matter, carbon monoxide, nitrogen oxide, sulphur dioxide, hydrogen sulphide, and volatile organic compounds), and emissions source tracking;</li> <li>c) procedures for monitoring station data recording, assessment, and reporting details;</li> <li>d) confirmation that those potentially affected by air emissions, including residents, land users, and Aboriginal groups, will receive contact information in the event they have concerns;</li> <li>e) a description of the public and Aboriginal communication and complaint response process;</li> <li>f) additional measures that will be implemented as a result of the monitoring data or ongoing concerns;</li> <li>g) the criteria or thresholds that, if triggered or exceeded, will require implementing additional measures;</li> <li>h) a particulate matter management plan to reduce particulate matter emissions; and</li> <li>i) a summary of Trans Mountain's consultation with Environment Canada, the British Columbia Ministry of Environment, Metro Vancouver, Fraser Valley Regional District, and Port Metro Vancouver regarding the Air Emissions Management Plan. This summary must include any issues or concerns raised regarding the plan and how Trans Mountain has addressed or responded to them.</li> </ul>
22	<p><b>Fugitive Emissions Management Plan for tank terminals</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, a Fugitive Emissions Management Plan for the Edmonton, Sumas, and Burnaby tank terminals. The plan must include:</p> <ul style="list-style-type: none"> <li>a) a description of the emission controls that will be employed to reduce fugitive emissions from working and standing losses from the tanks, and any other sources;</li> <li>b) procedures for verifying the capture and destruction efficiency of tank vapour activation units;</li> <li>c) quantification of fugitive emissions with tank vapour activation units during operations, including the methods used; and</li> <li>d) any additional mitigation measures that will be employed to further reduce the fugitive emissions.</li> </ul>
23	<p><b>Pre-construction Wetland Survey and Mitigation Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, a pre-construction Wetland Survey and Mitigation Plan that includes:</p> <ul style="list-style-type: none"> <li>a) results of all surveys for wetlands potentially affected by the Project, including the supplemental surveys;</li> <li>b) wildlife species at risk presence and distribution in relation to specific potentially affected wetlands and associated riparian areas;</li> </ul>

	<ul style="list-style-type: none"> <li>c) a description of the rare plants and ecological communities associated with the potentially affected wetlands;</li> <li>d) a description of the functional condition of each wetland for comparison during the Post-Construction Environmental Monitoring Program;</li> <li>e) criteria, and the rationale for the criteria, for the crossing methods and for the mitigation measures to be implemented for potentially affected wetlands;</li> <li>f) measurable goals for evaluating wetland mitigation and reclamation success;</li> <li>g) a description of how the avoidance, minimization, and compensation mitigation hierarchy, and the goal of no net loss of wetland functions, were considered;</li> <li>h) details of the monitoring plan for wetlands for the first 5 years of operations, including corrective actions that might be necessary and the circumstances under which each such action would be taken;</li> <li>i) a preliminary Wetland Compensation Plan for those wetlands which, after 5 years of operations, have not attained their original functionality. This preliminary compensation plan must include how wetland functionality will be assessed, how effects will be measured, and under what circumstances compensation will occur if effects are confirmed;</li> <li>j) a description of how Trans Mountain has taken available and applicable Aboriginal Traditional Land Use and Traditional Ecological Knowledge into consideration;</li> <li>k) a summary of consultation with appropriate provincial and federal authorities, and any potentially affected Aboriginal groups, including any issues or concerns raised and how Trans Mountain has addressed or responded to them; and</li> <li>l) confirmation that the relevant Environmental Protection Plans have been updated to include all mitigation measures in this Wetland Survey and Mitigation Plan, including those resulting from the supplementary surveys.</li> </ul>
24	<p><b>Access Management Plan(s)</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, an Access Management Plan(s) to be included within the updated Pipeline Environmental Protection Plan and Facilities Environmental Protection Plan (required by Conditions 29 and 30, respectively). The plan(s) must describe access control measures proposed for construction and operations, to reduce effects of access on wildlife mortality. The plan(s) must include:</p> <ul style="list-style-type: none"> <li>a) access management goals and objectives to control both human and predator access;</li> <li>b) measurable goals for evaluating the plan's success in achieving its objectives;</li> <li>c) a summary of related baseline information that will be collected and, if no additional information will be collected, a rationale;</li> <li>d) a list of sites where access control measures will be implemented, the control measure(s) proposed at those sites, and the rationale for selecting those sites and measures;</li> </ul>

	<ul style="list-style-type: none"> <li>e) a description of how Trans Mountain has taken available and applicable Aboriginal Traditional Land Use and Traditional Ecological Knowledge studies into consideration;</li> <li>f) a summary of Trans Mountain's consultation with appropriate federal and provincial authorities and any potentially affected Aboriginal groups regarding the Access Management Plan(s). This summary must include any issues or concerns raised regarding the plan(s) and how Trans Mountain has addressed or responded to them;</li> <li>g) the methods for monitoring the effectiveness of access control measures implemented;</li> <li>h) a description of available adaptive management measures and of the criteria Trans Mountain will use to determine if and when adaptive management measures are warranted based on monitoring results;</li> <li>i) a description of the locations where access control measures are put in place specifically for construction, as well as those that will remain in place into operations and will be monitored for the Project's operational life; and</li> <li>j) a commitment to report, as part of Trans Mountain's post-construction environmental monitoring reports (required by Condition 64), on the results of the control measures implemented, monitoring undertaken, and the success of control measures in meeting the Access Management Plan goals and objectives.</li> </ul>
<b>25</b>	<p><b>Acid Rock Identification and Mitigation Plan during construction</b></p> <ul style="list-style-type: none"> <li>a) Trans Mountain must file with the NEB for approval, <b>at least 4 months prior to commencing construction</b>, an Acid Rock Identification and Mitigation Plan for any area where potential interactions with acid rock might occur, including how these areas would be identified. Trans Mountain must include its proposed mitigation and a schedule for reporting results to the NEB.</li> <li>b) Trans Mountain must file with the NEB, <b>based on the NEB-approved schedule referred to in a)</b>, the results of the Acid Rock Identification Plan.</li> </ul>
<b>26</b>	<p><b>Authorizations under paragraph 35(2)(b) of the <i>Fisheries Act</i></b></p> <ul style="list-style-type: none"> <li>a) Trans Mountain must file with the NEB, <b>at least 4 months prior to commencing construction</b>: <ul style="list-style-type: none"> <li>i) a draft <i>Application Form for Paragraph 35(2)(b) Fisheries Act Authorization</i>;</li> <li>ii) a draft application package for authorization that includes all the information detailed in the <i>Applicant's Guide to Submitting an Application for Authorization under Paragraph 35(2)(b) of the Fisheries Act</i>, including: <ul style="list-style-type: none"> <li>• contact information;</li> <li>• a description of the proposed work, undertaking or activity;</li> <li>• detailed design;</li> <li>• the timeline;</li> </ul> </li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• location;</li> <li>• a description of fish and fish habitat (aquatic environment);</li> <li>• a description of effects on fish and fish habitat;</li> <li>• measures and standards to avoid or mitigate serious harm to fish;</li> <li>• a description of the monitoring measures;</li> <li>• residual serious harm to fish after implementing avoidance and mitigation measures and standards;</li> <li>• an offsetting plan; and</li> <li>• proof of the letter of credit; and</li> </ul> <p>iii) a summary of Trans Mountain's consultation with government authorities, stakeholders, and any potentially affected Aboriginal groups, or any other parties committed to in the Project application, regarding the works proposed to be authorized, as well as any offsetting measures proposed. This summary must include any issues or concerns raised regarding these works and how Trans Mountain has addressed or responded to them.</p> <p>b) Trans Mountain must file with the NEB, <b>at least 10 days prior to commencing construction</b>, a copy of the <i>Fisheries Act</i> authorization.</p>
27	<p><b>Weed and Vegetation Management Plan</b></p> <p>Trans Mountain must file with the NEB, <b>at least 4 months prior to commencing construction</b>, an updated Weed and Vegetation Management Plan for the Project that incorporates the results of any supplemental surveys. The updated plan must include measurable goals, short- and long-term vegetation monitoring, and management procedures.</p>
28	<p><b>Navigation and navigation safety</b></p> <p>Trans Mountain must file with the NEB, <b>at least 4 months prior to commencing construction</b>:</p> <ul style="list-style-type: none"> <li>a) an updated list of navigable waterways that may be affected by the Project (including the pipeline, power lines, marine terminal, temporary or permanent bridge crossings, or other ancillary works that are physically or operationally connected to the Project);</li> <li>b) an updated assessment of Project effects on navigation and navigation safety for each of the waterways (outside of marine shipping issues);</li> <li>c) proposed mitigation measures to address Project effects on navigation and navigation safety for each of the waterways, including adherence to codes and standards (such as the Canadian Standards Association), for each waterway;</li> <li>d) any issues or concerns raised by waterway users and any potentially affected Aboriginal groups regarding navigational use of each of the waterways and how Trans Mountain has addressed or responded to those issues or concerns; and</li> </ul>

	<p>e) an assessment of effects of proposed fish habitat offsets (included in the offsetting plan required by Condition 26) on navigation and navigation safety and mitigation measures proposed to reduce or avoid those effects.</p>
<b>29</b>	<p><b>Pipeline Environmental Protection Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 90 days prior to commencing construction</b>, an updated Project-specific Pipeline Environmental Protection Plan for the construction of the pipeline, including Environmental Alignment Sheets.</p> <p>The updated Environmental Protection Plan must be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in Trans Mountain's Project application, its subsequent filings, the evidence it provided during the OH-001-2014 proceeding, or as otherwise committed to during questioning or in its related submissions, or through consultation with other government authorities. The updated Environmental Protection Plan must describe the criteria for implementing all procedures and measures, and must use clear and unambiguous language that confirms Trans Mountain's intention to implement all of its commitments. The updated Environmental Protection Plan must include the following elements:</p> <ul style="list-style-type: none"> <li>a) environmental procedures, including site-specific plans, criteria for implementing these procedures, mitigation measures, and monitoring applicable to all Project phases and activities;</li> <li>b) policies and procedures for environmental training and the reporting structure for environmental management during construction, including the qualifications, roles, responsibilities, and decision-making authority for each job title identified in the Environmental Protection Plan;</li> <li>c) any additional measures arising from all supplemental pre-construction field studies and surveys;</li> <li>d) updated contingency plans and environmental management plans;</li> <li>e) a reclamation plan that includes a description of the condition to which Trans Mountain intends to reclaim and maintain disturbed areas once construction has been completed, and a description of measurable goals for reclamation; and</li> </ul> <p>a summary of Trans Mountain's consultation with appropriate regulatory authorities and any potentially affected Aboriginal groups regarding the updated Environmental Protection Plan, including any issues or concerns raised regarding the updated Environmental Protection Plan and how Trans Mountain has addressed or responded to them.</p>
<b>30</b>	<p><b>Facilities<sup>8</sup> Environmental Protection Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 90 days prior to commencing construction</b>, an updated Project-specific Facilities Environmental Protection Plan.</p>

<sup>8</sup> In this condition, facilities refer to pump stations and associated facilities, tank terminals, and associated infrastructure and temporary facilities (e.g., temporary access roads and shoo-flies, staging and stockpile sites, equipment storage sites, construction office sites, construction work camps, trenchless crossing work areas, borrow pits, and log decks).



	<p>The updated Environmental Protection Plan must be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in Trans Mountain's Project application, its subsequent filings, the evidence it provided during the OH-001-2014 proceeding, or as otherwise committed to during questioning or in its related submissions, or through consultation with other government authorities. The updated Environmental Protection Plan must describe the criteria for implementing all procedures and measures, and must use clear and unambiguous language that confirms Trans Mountain's intention to implement all of its commitments.</p> <p>The updated Environmental Protection Plan must include the following elements:</p> <ul style="list-style-type: none"> <li>a) environmental protection procedures and plans applicable to the Facilities, including site-specific plans, criteria for implementing the procedures, mitigation measures, and monitoring plans;</li> <li>b) policies and procedures for environmental training and the reporting structure for environmental management during construction, including the qualifications, roles, responsibilities and decision-making authority for each job title identified in the updated Environmental Protection Plan;</li> <li>c) any additional measures arising from all supplemental pre-construction field studies and surveys;</li> <li>d) updated contingency plans and environmental management plans;</li> <li>e) a reclamation plan that includes a description of the condition to which Trans Mountain intends to reclaim and maintain the disturbed areas once construction has been completed, including a description of measurable goals for reclamation; and</li> <li>f) a summary of consultation with appropriate regulatory authorities and any potentially affected Aboriginal groups regarding the updated Environmental Protection Plan, including any issues or concerns raised regarding the updated Environmental Protection Plan and how Trans Mountain has addressed or responded to them.</li> </ul>
31	<p><b>Westridge Marine Terminal Environmental Protection Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 90 days prior to commencing construction</b>, an updated Project-specific Westridge Marine Terminal Environmental Protection Plan.</p> <p>The updated Environmental Protection Plan must be a comprehensive compilation of all environmental protection procedures, mitigation measures and monitoring commitments, as set out in Trans Mountain's Project application, its subsequent filings, the evidence it provided during the OH-001-2014 proceeding, or as otherwise committed to during questioning or in its related submissions, or through consultation with other government authorities. The updated Environmental Protection Plan must describe the criteria for implementing all procedures and measures, and must use clear and unambiguous language that confirms Trans Mountain's intention to implement all of its commitments.</p> <p>The updated Environmental Protection Plan must include the following elements:</p>



	<ul style="list-style-type: none"> <li>a) environmental procedures, including site-specific plans, criteria for implementing these procedures, mitigation measures, and monitoring applicable to all Project phases and activities;</li> <li>b) policies and procedures for environmental training and the reporting structure for environmental management during construction, including the qualifications, roles, responsibilities, and decision-making authority for each job title identified in the Environmental Protection Plan;</li> <li>c) results of all environmental surveys that are required prior to commencing construction at the Westridge Marine Terminal, including associated mitigation.</li> <li>d) updated contingency plans and environmental management plans as outlined in the preliminary Westridge Marine Terminal Environmental Protection Plan filed as part of the Project application; and</li> <li>e) a summary of consultation with appropriate regulatory authorities and any potentially affected Aboriginal groups regarding the updated Environmental Protection Plan, including any issues or concerns raised regarding the updated Environmental Protection Plan and how Trans Mountain has addressed or responded to them.</li> </ul>
32	<p><b>Horizontal Directional Drilling Noise Management Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 90 days prior to commencing construction</b>, a detailed Horizontal Directional Drilling Noise Management Plan, where residents, land and waterway users, and Aboriginal groups are within 500 metres of the proposed horizontal directional drilling activities. The plan must include:</p> <ul style="list-style-type: none"> <li>a) proposed hours of work;</li> <li>b) ambient sound levels at noise sensitive areas close to the horizontal directional drilling exit and entrance sites to establish a baseline for assessing potential noise impacts;</li> <li>c) predicted noise levels at the most affected residences caused by horizontal directional drilling without mitigation;</li> <li>d) horizontal directional drilling noise mitigation measures, including all technologically and economically feasible mitigation measures;</li> <li>e) predicted noise levels at the most affected residences with implementation of the mitigation measures;</li> <li>f) noise contour map(s) showing the potentially affected residences at various noise levels;</li> <li>g) a noise monitoring program including locations, methods, and schedule;</li> <li>h) confirmation that those potentially affected by horizontal directional drilling noise, including residents, land and waterway users, and Aboriginal groups, will receive contact information for use in the event they have concerns about horizontal directional drilling noise;</li> <li>i) a contingency plan with proposed mitigation measures for addressing noise complaints, which may include the temporary relocation of specific residents; and</li> </ul>

	<p>j) confirmation that Trans Mountain will provide notice to nearby residents in the event that a planned blowdown is required, and that the planned blowdown will be completed during day-time hours whenever possible.</p>
33	<p><b>Noise Management Plan for pump stations, tank terminals, and the Westridge Marine Terminal</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 90 days prior to commencing construction</b>, a detailed Noise Management Plan for pump stations and terminals, where residents, land users, and Aboriginal groups are within 300 metres of the proposed construction activities. The plan must include:</p> <ul style="list-style-type: none"> <li>a) proposed hours of work;</li> <li>b) noise mitigation measures, including all technologically and economically feasible mitigation measures;</li> <li>c) a noise monitoring program, including locations, methods, and schedule;</li> <li>d) confirmation that those potentially affected by construction noise, including residents, land users, and Aboriginal groups, will receive contact information for use in the event they have concerns about construction noise; and</li> <li>e) a contingency plan with proposed mitigation measures for addressing noise complaints, which may include the temporary relocation of specific residents.</li> </ul>
34	<p><b>Post-Construction Acid Rock Drainage Monitoring Plan</b></p> <ul style="list-style-type: none"> <li>a) Trans Mountain must file with the NEB for approval, <b>at least 90 days prior to commencing construction</b>, a follow-up monitoring plan, which includes measureable goals, for any area where drainage from acid rock might occur. Trans Mountain must include a proposed schedule for reporting results to the NEB.</li> <li>b) Trans Mountain must file with the NEB, <b>based on the NEB-approved schedule referred to in a)</b>, the results of the monitoring plan, including an evaluation of the environmental assessment predictions and mitigation effectiveness, comparison of the monitoring results against the measureable goals defined in a) above, and a discussion of any necessary adaptive management measures.</li> </ul>
35	<p><b>Traffic Control Plans for public roadways</b></p> <p>Trans Mountain must file with the NEB for approval, <b>at least 90 days prior to commencing construction</b>, traffic control plans for the use of public roadways for the Project. The plans must include:</p> <ul style="list-style-type: none"> <li>a) information regarding the timing and location of key construction activities (including equipment mobilization and staging, pipe stockpiling, pipeline and pump station construction, and equipment demobilization);</li> <li>b) current traffic volumes and anticipated traffic volumes during the construction period for both day and night times;</li> </ul>

	<ul style="list-style-type: none"> <li>c) a description of the predicted traffic flows, including vehicle types and volumes, at key construction points, marshalling areas, access roads, and public roadways;</li> <li>d) an assessment of the potential impacts associated with the increased volume of construction-related traffic (e.g., safety hazards, noise, light, dust, etc.) and associated mitigation measures; and</li> <li>e) evidence of consultation with potentially affected municipal or provincial authorities regarding the Traffic Control Plans, including a summary of the results of these discussions, and, where concerns remain outstanding, an explanation of how Trans Mountain proposes to resolve them.</li> </ul>
<b>36</b>	<p><b>Construction schedule</b></p> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing construction</b>, a construction schedule identifying the major construction activities expected and, <b>on a monthly basis from the start of any clearing until commencing operations</b>, updated detailed construction schedules.</p>
<b>37</b>	<p><b>Security Programs</b></p> <p>Trans Mountain must confirm with the NEB in writing, in accordance with the timelines below, that it has developed Security Programs for the construction and operations phases of the Project, pursuant to the <i>National Energy Board Onshore Pipeline Regulations</i> (as amended from time to time) and CSA Z246.1:</p> <ul style="list-style-type: none"> <li>a) <b>at least 90 days prior to commencing construction</b> for the construction phase Security Program; and</li> <li>b) <b>at least 90 days prior to commencing operations</b> for the operations phase Security Program.</li> </ul>
<b>38</b>	<p><b>Construction Safety Manuals</b></p> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing construction</b>, Construction Safety Manuals for the applicable Project components. Filings must include separate Construction Safety Manuals for pipeline construction, facilities construction, and Westridge Marine Terminal construction.</p> <p>These manuals must address routine construction activities, as well as blasting, avalanche safety, and special access road procedures that may be required in areas subject to activities other than Project construction (e.g., logging).</p>
<b>39</b>	<p><b>Landowner consultation records</b></p> <p>Trans Mountain must maintain records of its landowner consultations that include:</p> <ul style="list-style-type: none"> <li>a) a description of landowner consultations, including the consultation methods, dates, and a summary of any issues or concerns raised by landowners; and</li> <li>b) a summary of actions that Trans Mountain has undertaken to address or respond to each of the issues or concerns raised by landowners, or a rationale for why no actions were taken, and any outstanding concerns.</li> </ul>

	<p>Trans Mountain must file with the NEB, <b>beginning at least 60 days prior to commencing construction, and every 6 months thereafter until completing construction</b>, its landowner consultation records. Trans Mountain must continue to file its landowner consultation records with the NEB <b>every 6 months for 5 years after commencing Project operations</b>.</p>
<b>40</b>	<p><b>Heritage resources</b></p> <p>Trans Mountain must file with the NEB, <b>at least 60 days prior to commencing construction</b>:</p> <ul style="list-style-type: none"> <li>a) copies of correspondence from the Alberta Department of Culture and the British Columbia Ministry of Forests, Lands and Natural Resource Operations confirming that Trans Mountain has obtained all of the required archaeological and heritage resource permits and clearances;</li> <li>b) a description of how Trans Mountain will meet any conditions and respond to any comments and recommendations contained in the permits and clearances referred to in a); and</li> <li>c) a description of how Trans Mountain has incorporated any additional mitigation measures into its Environmental Protection Plans as a result of any conditions or recommendations referred to in b).</li> </ul>
<b>41</b>	<p><b>Emergency Response Plan for construction</b></p> <p>Trans Mountain must file with the NEB, <b>at least 60 days prior to commencing construction</b>, the Project-specific Emergency Response Plan that would be implemented during the construction phase. The plan must include spill contingency measures that Trans Mountain will employ in response to accidental spills attributable to construction activities, 24-hour medical evacuation, fire response, and security.</p>
<b>42</b>	<p><b>Consultation on improvements to Trans Mountain's Emergency Management Program</b></p> <p>Trans Mountain must file with the NEB, <b>at least 60 days prior to commencing construction</b>, a consultation plan regarding its review of its Emergency Response Plan and equipment and availability, as referenced in Volume 7, Section 4.8.2 of the Project application. This plan must include:</p> <ul style="list-style-type: none"> <li>a) the consultation plan's scope;</li> <li>b) the consultation plan's objectives;</li> <li>c) a preliminary list of regulatory authorities that Trans Mountain will consult;</li> <li>d) a preliminary list of communities and Aboriginal groups that Trans Mountain will consult;</li> <li>e) a preliminary list of consultation locations and timing; and</li> <li>f) the methods that will be used to track commitments made during consultation and to incorporate them into Trans Mountain's Emergency Management Program, including its Emergency Response Plans.</li> </ul>

<b>Conditions with initial filings due prior to commencing operations / during construction</b>	
<b>43</b>	<p><b>Construction progress reports</b></p> <p>Trans Mountain must file with the NEB <b>monthly construction progress reports during construction</b>. The reports must include information on the progress of activities carried out during the reporting period. These reports must include safety, environmental, and security non-compliances that occurred during each reporting period and the measures undertaken to resolve them. These reports must also include a description of any changes made to geohazard mitigation measures, the location of any pressure tests carried out during the reporting period, and a description of any unsuccessful pressure tests and their cause.</p>
<b>44</b>	<p><b>Aboriginal, local, and regional employment and business opportunity monitoring reports</b></p> <p>Trans Mountain must file with the NEB, <b>within 90 days after commencing construction, and every 6 months thereafter until completing construction</b>, monitoring reports for Aboriginal, local, and regional employment and business opportunities for the Project. The reports must include:</p> <ul style="list-style-type: none"> <li>a) a summary of the elements or indicators monitored;</li> <li>b) a summary and analysis of Aboriginal, local, and regional employment and business opportunities during the reporting period; and</li> <li>c) a summary of Trans Mountain's consultation with relevant Aboriginal, local, and regional communities, and industry groups or representatives regarding employment and business opportunities for the reporting period. This summary must include any issues or concerns raised regarding employment and business opportunities and how Trans Mountain has addressed or responded to them.</li> </ul> <p>Trans Mountain must file with the NEB, <b>within 6 months after completing construction</b>, a final report on employment during the construction phase.</p>
<b>45</b>	<p><b>Watercourse crossing inventory</b></p> <p>For all the watercourse crossings that are to be constructed within a common construction season, Trans Mountain must file with the NEB, <b>at least 4 months prior to commencing their construction</b>:</p> <ul style="list-style-type: none"> <li>a) an updated aquatic catalogue for all the watercourse crossings based on centreline surveys;</li> <li>b) an updated watercourse crossing inventory for all the watercourse crossings describing the watercourse name and numerical identifier, coordinates, stream class, width of wetted channel, primary and contingency construction methods, minimum pipeline cover (except for aerial crossings), current and historical fish presence, fish habitat sensitivity, and level of assessment;</li> <li>c) detailed final drawings of typical designs for open-cut and isolated crossings of various watercourse types;</li> </ul>

	<p>d) detailed final design drawings and plans for both the proposed primary and contingency construction methods for watercourse crossings with a sensitivity ranking of high, excluding those drawings subject to c), to mitigate environmental or safety concerns, including calculated vertical and lateral scour potential, and proposed mitigation measures;</p> <p>e) design flood values for all watercourse crossings with a high sensitivity ranking, including for those where a trenchless crossing method is proposed as the primary construction method;</p> <p>g) a final list of all watercourses crossings that are likely to require an Authorization from Fisheries and Oceans Canada under paragraph 35(2)(b) of the <i>Fisheries Act</i>;</p> <p>g) a description of how Trans Mountain has taken available and applicable Aboriginal Traditional Land Use and Traditional Ecological Knowledge into consideration in developing the watercourse crossing designs; and</p> <p>h) a summary of Trans Mountain's consultation with government authorities, stakeholders, and any potentially affected Aboriginal groups, and any other parties committed to in the Project application, regarding the watercourse crossing designs and mitigation measures. This summary must include any issues or concerns raised regarding the crossing designs and how Trans Mountain has addressed or responded to them.</p> <p><b>Trans Mountain must not commence construction of a watercourse crossing until all pre-construction conditions have been satisfied.</b></p>
46	<p><b>Radiographer and ultrasonic technicians</b></p> <p>Trans Mountain must use only Canadian General Standards Board-certified radiographers and ultrasonic technicians to operate any NDE inspection equipment, and for the final interpretation of radiographic film and the results of the ultrasonic inspection system. Trans Mountain must file with the NEB, <b>at least 30 days prior to commencing NDE operations</b>, confirmation of compliance.</p>
47	<p><b>Updated engineering alignment sheets and drawings</b></p> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing pipe installation</b>, updated engineering alignment sheets and drawings and, <b>as they become available and prior to their implementation</b>, any modifications to those sheets and drawings.</p>
48	<p><b>Hydrostatic Testing Plan</b></p> <p>Trans Mountain must file with the NEB, <b>at least 60 days prior to pressure testing</b>, a Hydrostatic Testing Plan for the Project that includes:</p> <ul style="list-style-type: none"> <li>a) the location(s) of water withdrawal and discharge;</li> <li>b) the rate(s) of water withdrawal;</li> <li>c) the volume(s) of water withdrawal;</li> </ul>

	<ul style="list-style-type: none"> <li>d) the flow rate/volume of water at withdrawal location(s); and</li> <li>e) site-specific mitigation measures.</li> </ul>
<b>49</b>	<p><b>Reporting on improvements to Trans Mountain's Emergency Management Program</b></p> <p>Trans Mountain must file with the NEB, <b>2 years, 1 year, and 6 months prior to commencing operations</b>, a detailed update for the company's review of its Emergency Management Program (referenced in Condition 42). This filing must include the following:</p> <ul style="list-style-type: none"> <li>a) a summary of work undertaken to date;</li> <li>b) the approximate timing of remaining work; and</li> <li>c) a summary of interested parties that were consulted and how their comments were considered.</li> </ul>
<b>50</b>	<p><b>Emergency Preparedness and Response Exercise and Training Program</b></p> <p>Trans Mountain must file with the NEB, <b>at least 1 year prior to commencing operations</b>, an Emergency Preparedness and Response Exercise and Training Program for the pipeline and the Westridge Marine Terminal. The program's objective is to demonstrate the continual improvement of responder competencies (including control centre personnel) at all levels of the company to prepare for, respond to, recover from, and mitigate the potential effects of emergencies of any type. The program must include:</p> <ul style="list-style-type: none"> <li>a) a defined scope, other objectives in addition to those noted above, and program targets that address responder turn-over and ensure responders' ongoing training and practice;</li> <li>b) a list of mandatory courses for responders;</li> <li>c) how Trans Mountain will train its personnel to respond to all hydrocarbon spill scenarios in various seasons, including releases of hydrocarbons in mountain regions during winter conditions, into ice covered watercourses, and into watercourses under varying flow conditions;</li> <li>d) a description of, and schedule for, all emergency response exercises (full-scale, tabletop, drills, functional) that Trans Mountain will conduct prior to operations to test a variety of scenarios;</li> <li>e) a plan, including rationales, for determining the schedule and frequency of all emergency response exercises (full-scale, tabletop, drills, functional) to test a variety of scenarios during the Project's operational life;</li> <li>f) a description of how emergency response exercises will meet the objectives of testing Trans Mountain's:             <ul style="list-style-type: none"> <li>i) emergency response procedures;</li> <li>ii) company personnel training;</li> <li>iii) communications systems;</li> <li>iv) response equipment;</li> <li>v) safety procedures; and</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>vi) the effectiveness of its liaison and continuing education programs;</li> <li>g) a learnings implementation plan for exercises that considers how Trans Mountain will update and amend its Emergency Response Plans and related documents following exercises. The learnings implementation plan must consider three main purposes: <ul style="list-style-type: none"> <li>i) to validate plans;</li> <li>ii) to develop responder competencies (including control centre personnel) and provide them with the opportunity to carry out and understand their roles in emergency response; and</li> <li>iii) to test Project-specific and well-established emergency response procedures;</li> </ul> </li> <li>h) a plan for addressing the training requirements contained within the <i>National Energy Board Onshore Pipeline Regulations</i>; and</li> <li>i) confirmation that an independent third party has reviewed and assessed the Emergency Preparedness and Response Exercise and Training Program and that Trans Mountain has considered and incorporated the comments generated by that review and assessment into the program.</li> </ul>
51	<p><b>Notification and reporting on emergency response exercises</b></p> <p>For any tabletop, functional, and full-scale emergency response exercises undertaken as part of its Emergency Preparedness and Response Exercise and Training Program (required by Condition 50):</p> <ul style="list-style-type: none"> <li>a) Trans Mountain must notify the NEB, <b>at least 45 days prior to the date of each exercise</b>, of: <ul style="list-style-type: none"> <li>i) the exercise's date and location(s);</li> <li>ii) the objectives;</li> <li>iii) the participants in the exercise; and</li> <li>iv) the scenario for the exercise.</li> </ul> </li> <li>b) Trans Mountain must file with the NEB, <b>within 60 days after completing each exercise</b>, a report on the exercise that includes: <ul style="list-style-type: none"> <li>i) the results of the completed exercise;</li> <li>ii) areas for improvement; and</li> <li>iii) steps to be taken to correct deficiencies.</li> </ul> </li> </ul>
52	<p><b>Emergency Response Plan for the pipeline</b></p> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing operations</b>, an Emergency Response Plan for the pipeline to verify compliance with its commitments regarding emergency preparedness and response. The plan must demonstrate Trans Mountain's ability to prepare for, respond to, recover from, and mitigate the potential effects of emergencies of any type and in any geographic region or season and must include:</p>



	<ul style="list-style-type: none"> <li>a) the relevant emergency preparedness and response documents as follows: <ul style="list-style-type: none"> <li>i) emergency response plan to include the pipeline expansion;</li> <li>ii) updated facility response plans for the Edmonton, Sumas and Burnaby Terminals; and</li> <li>iii) all related and accompanying site specific plans and documents, such as control point mapping.</li> </ul> </li> <li>b) an emergency response and preparedness table for the pipeline indicating which plans will be referred to in an emergency response for each 10-kilometre-long pipeline segment. For each pipeline segment, the table must also identify, at a minimum: <ul style="list-style-type: none"> <li>i) high consequence areas;</li> <li>ii) potentially-affected persons or groups;</li> <li>iii) available access to the right-of-way and high consequence areas;</li> <li>iv) nearest control point(s);</li> <li>v) nearest available equipment cache(s);</li> <li>vi) response times for equipment and personnel to the right-of-way and high consequence areas; and</li> <li>vii) geological, meteorological, and geographical hazards (e.g., snow avalanche, mud slides, rock slides, and steep slopes); and</li> <li>viii) how the plan conforms to requirements contained within the <i>National Energy Board Onshore Pipeline Regulations</i>; and</li> <li>ix) confirmation that an independent third party has reviewed and assessed the Emergency Response Plan and that Trans Mountain has considered and incorporated the comments generated by the review and assessment into the plan.</li> </ul> </li> </ul>
53	<p><b>Emergency Response Plan for the Westridge Marine Terminal</b></p> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing operations</b>, an Emergency Response Plan for the Westridge Marine Terminal to verify compliance with its commitments regarding emergency preparedness and response. The plan must demonstrate geographic familiarity with the area and the response needed to prepare for, respond to, recover from, and mitigate the potential effects of emergencies of any type and must include:</p> <ul style="list-style-type: none"> <li>a) all related and accompanying site-specific plans and documents, such as geographic response plans;</li> <li>b) a list of high consequence areas;</li> <li>c) a list of potentially-affected persons or groups;</li> <li>d) nearest available equipment cache(s);</li> <li>e) response times for equipment and personnel to the water and high consequence areas;</li> </ul>

	<ul style="list-style-type: none"> <li>f) how trajectory models will be used in response planning and who will be responsible for running them;</li> <li>g) how the plan conforms to requirements contained within the <i>National Energy Board Onshore Pipeline Regulations</i>; and</li> <li>h) confirmation that an independent third party has reviewed and assessed the Emergency Response Plans and that Trans Mountain has considered and incorporated comments generated by the review and assessment into the plan.</li> </ul>
54	<p><b>Improvements to Trans Mountain's Emergency Management Program</b></p> <p>Trans Mountain must file with the NEB, <b>at least 90 days prior to commencing operations</b>, a detailed summary of its review of its Emergency Response Plan, equipment and availability, as referenced in Volume 7, Section 4.8.2 of its Project application. This filing must include a description of changes made to Trans Mountain's Emergency Management Program, as required under the <i>National Energy Board Onshore Pipeline Regulations</i>, as a result of the review, including changes in the following areas:</p> <ul style="list-style-type: none"> <li>a) the pipeline Emergency Response Plan;</li> <li>b) facility Emergency Response Plans for the Edmonton, Sumas, and Burnaby Terminals, as well as the Westridge Marine Terminal; and</li> <li>c) all related and accompanying site-specific plans and documents, such as control point mapping.</li> </ul>
55	<p><b>Offset Measures Plan for residual effects on caribou habitat</b></p> <p>Trans Mountain must file with the NEB for approval, in accordance with the timelines below, an Offset Measures Plan for each affected caribou range to offset all unavoidable and residual Project-related effects resulting from directly and indirectly disturbed caribou habitat, after taking into account the implementation of the Post-Construction Environmental Monitoring Program and CHRP measures.</p> <ul style="list-style-type: none"> <li>a) A preliminary version, to be filed <b>at least 90 days prior to applying for leave to open</b>, with the plan's criteria and measurable goals and that includes: <ul style="list-style-type: none"> <li>i) an initial quantification of the area of caribou habitat directly and indirectly disturbed;</li> <li>ii) a list of the potential offset measures available;</li> <li>iii) each potential offset measure's appropriate offset ratio;</li> <li>iv) each potential offset measure's expected effectiveness;</li> <li>v) each potential offset measure's relative value toward achieving the offset;</li> <li>vi) a conceptual decision-making tree(s) or process that will be used to select which specific potential offset measures and accompanying offset ratios will be used under what circumstances; and</li> </ul> </li> <li>b) A final version, to be filed <b>on or before 31 January after the second complete</b></li> </ul>

	<p><b>growing season after commencing operations</b>, including:</p> <ul style="list-style-type: none"> <li>i) the preliminary Offset Measures Plan, with any updates identified in a revision log that includes the rationale for any changes;</li> <li>ii) a detailed decision-making tree(s) or process that will be used to select which specific potential offset measures and accompanying offset ratios will be used under what circumstances;</li> <li>iii) a tabular list of the potential offset measures and appropriate offset ratios to be implemented or already underway, including a description of site-specific details and maps showing the locations;</li> <li>iv) a schedule indicating when potential offset measures will be started and their estimated completion date;</li> <li>v) either an assessment of the potential offset measures' effectiveness and their value in offsetting residual effects, or a plan for completing an assessment of the potential offset measures' effectiveness and value; and</li> <li>vi) an update on the restoration success to support offset measure decisions.</li> </ul> <p>Both the preliminary and final versions of the plan must also include a summary of Trans Mountain's consultation with appropriate federal and provincial authorities and any potentially affected Aboriginal groups regarding the Offset Measures Plan. This summary must include any issues or concerns raised regarding the plan(s) and how Trans Mountain has addressed or responded to them. The Offset Measures Plan must include a description of how Trans Mountain has taken any available and applicable Aboriginal Traditional Land Use and Traditional Ecological Knowledge studies into consideration in developing the plan.</p>
56	<p><b>Pre-operations full-scale emergency response exercises</b></p> <ul style="list-style-type: none"> <li>a) <b>Prior to commencing operations</b>, Trans Mountain must complete full-scale exercises for the following scenarios: <ul style="list-style-type: none"> <li>i) a 160-cubic-metre diluted bitumen release into Burrard Inlet as a result of a release from the Westridge Marine Terminal; and</li> <li>ii) a credible worst case release volume at the Burnaby Tank Farm.</li> </ul> </li> <li>b) Trans Mountain must notify the NEB, <b>at least 45 days prior to the date of each exercise</b>, of: <ul style="list-style-type: none"> <li>i) the exercise's date and location(s);</li> <li>ii) the objectives;</li> <li>iii) the participants in the exercise; and</li> <li>iv) the scenario for the exercise.</li> </ul> </li> <li>c) Trans Mountain must file with the NEB, <b>within 60 days after completing each exercise</b>, a report on the exercise that includes: <ul style="list-style-type: none"> <li>i) the results of the completed exercise;</li> <li>ii) areas for improvement; and</li> </ul> </li> </ul>

	iii) steps to be taken to correct deficiencies.
<b>Conditions with initial filings due after commencing operations</b>	
<b>57</b>	<p><b>Post-construction noise surveys</b></p> <p>Trans Mountain must file with the NEB, <b>within 90 days after commencing operations</b>, the results of post-construction noise surveys conducted at the Sumas and Burnaby Terminals and at the Westridge Marine Terminal, demonstrating compliance with the British Columbia Oil and Gas Commission's <i>British Columbia Noise Control Best Practices Guideline</i> e. This filing must also include any further mitigation that Trans Mountain will undertake to achieve compliance.</p>
<b>58</b>	<p><b>Pipeline inspections on Line 2</b></p> <p>Trans Mountain must conduct the following pipeline inspections on Line 2, at the times indicated:</p> <ul style="list-style-type: none"> <li>a) a high-resolution in-line caliper inspection (i.e., a GEOPIG™ inspection) <b>within 6 months after commencing operations</b> to establish accurate pipeline position and to detect pipe deformations;</li> <li>b) an in-line ultrasonic crack detection inspection <b>within 2 years after commencing operations</b>;</li> <li>c) an in-line corrosion magnetic flux leakage inspection in both the circumferential and longitudinal directions <b>within 2 years after commencing operations</b>;</li> <li>d) an in-line ultrasonic wall measurement inspection <b>within 2 years after commencing operations</b>; and</li> <li>e) an above-ground coating survey <b>within 2 years after commencing operations</b>.</li> </ul> <p>Trans Mountain must file with the NEB, <b>within 6 months after completing each inspection</b>, a report that includes a summary of the inspection results, the proposed re-inspection interval, and mitigation measures, if required.</p>
<b>59</b>	<p><b>Pipeline Geographic Information System (GIS) data</b></p> <p>Trans Mountain must file with the NEB, <b>within 1 year after commencing operations</b>, GIS data in the form of an Esri® shape file that contains pipeline segment centre lines, where each segment has a unique outside diameter, wall thickness, maximum operating pressure, external coating, field-applied girth weld coating, and pipe manufacturing specification. If the above values of the pipeline change at any point along the length of the pipeline, the pipeline should be segmented at that point. Trans Mountain must also provide GIS locations and names of pump stations, terminals, custody transfer meters, pipeline bridges, and block valves, as applicable.</p> <p>The datum must be NAD83 and projection must be geographic (latitudes and longitudes).</p>
<b>60</b>	<b>Full-scale emergency response exercises during operations</b>

	<ul style="list-style-type: none"> <li>a) <b>Within 5 years after commencing operations</b>, Trans Mountain must complete full-scale exercises to test the following scenarios: <ul style="list-style-type: none"> <li>i) a full-bore rupture under ice and snow conditions in the Coquihalla Mountain Range;</li> <li>ii) a full-bore rupture into the North Thompson River during high spring flow conditions;</li> <li>iii) a full-bore rupture into the Athabasca River during high spring flow conditions; and</li> <li>iv) a full-bore rupture into Fraser River under peak flow conditions.</li> </ul> </li> <li>b) Trans Mountain must notify the NEB, <b>at least 45 days prior to the date of each exercise</b>, of: <ul style="list-style-type: none"> <li>i) the exercise's date and location(s);</li> <li>ii) the objectives;</li> <li>iii) the participants in the exercise; and</li> <li>iv) the scenario for the exercise.</li> </ul> </li> <li>c) Trans Mountain must file with the NEB, <b>within 60 days after completing each exercise</b>, a report on the exercise that includes: <ul style="list-style-type: none"> <li>i) the results of the completed exercise;</li> <li>ii) areas for improvement; and</li> <li>iii) steps to be taken to correct deficiencies.</li> </ul> </li> </ul>
<p><b>61</b></p>	<p><b>Caribou Habitat Restoration and Offset Measures Monitoring Plan</b></p> <p>Trans Mountain must file with the NEB for approval, <b>on or before 31 January after the first complete growing season after commencing operations</b>, a program for monitoring and verifying the effectiveness of caribou habitat restoration and offset measures implemented as part of the CHRP and the Offset Measures Plan (required by Conditions 10 and 55, respectively). This program must include:</p> <ul style="list-style-type: none"> <li>a) the scientific methods or protocols for short- and long-term monitoring of the restoration and offset measures, including their effectiveness;</li> <li>b) monitoring frequency, timing, and locations, and the rationale for each;</li> <li>c) protocols for how restoration and offset measures will be adapted, based on the monitoring results from the program's implementation; and</li> <li>d) a schedule for filing reports on monitoring results and the adaptive management responses to the NEB, Environment Canada, and appropriate provincial authorities. Any changes to this schedule must be included at the beginning of each filed monitoring report.</li> </ul>

62	<p><b>Caribou habitat restoration and offset measures monitoring report(s)</b></p> <p>Trans Mountain must file with the NEB, <b>based on the approved schedule for the Caribou Habitat Restoration and Offset Measures Monitoring Plan</b> (required by Condition 61), a report(s) describing the program's results regarding the effectiveness of habitat restoration and offset measures for each affected caribou range, and how those measures will be adapted, as required, based on monitoring results.</p>
63	<p><b>Post-Construction Wetland Reclamation Evaluation and Compensation Plan</b></p> <p>Trans Mountain must file with the NEB, <b>on or before 31 January after the fifth complete growing season after commencing operations</b>, a Wetland Reclamation Evaluation and Compensation Plan that includes:</p> <ul style="list-style-type: none"> <li>a) the extent (in hectares), by wetland type, that was impacted by pipeline construction and associated activities and facilities at the time of construction;</li> <li>b) for each wetland impacted, an evaluation of reclamation success with reference to the measurable goals outlined in the Pre-Construction Wetland Survey and Mitigation Plan;</li> <li>c) an identification of any wetlands that have not yet achieved the intended degree of reclamation success;</li> <li>d) for those wetlands identified in c), a final Wetland Compensation Plan that includes the methods used to quantify the compensation required, details on compensation measures to be implemented, and how such measures will be monitored and reported on; and</li> <li>e) a summary of consultation with appropriate provincial and federal authorities, and any potentially affected Aboriginal groups, including any issues or concerns raised and how Trans Mountain has addressed or responded to them.</li> </ul>
64	<p><b>Post-construction environmental monitoring reports</b></p> <p>Trans Mountain must file with the NEB, <b>on or before 31 January of each year for the duration of the Post-Construction Environmental Monitoring Program</b><sup>9</sup> a monitoring report that includes:</p> <ul style="list-style-type: none"> <li>a) a description of the methods used for monitoring, including measurable goals for each element assessed, against which monitoring results are compared;</li> <li>b) any modifications to the criteria established for evaluating reclamation success described in Trans Mountain's Environmental Protection Plans for the pipeline, the facilities, and the Westridge Marine Terminal, as approved by the NEB through Conditions 29, 30, and 31, respectively, including the rationale for any modifications;</li> <li>c) the issues to be monitored, including unexpected issues that arose during construction, and their locations (e.g., on a map, diagram, or table);</li> </ul>

<sup>9</sup> To be determined by the NEB.

	<ul style="list-style-type: none"><li>d) a description of the current status of the issues (resolved or unresolved), any deviations from plans, and corrective actions undertaken;</li><li>e) an assessment of the effectiveness of mitigation measures (planned and corrective) against the criteria for success;</li><li>f) an assessment of the efficacy of the various Management Plans outlined in the Trans Mountain's Environmental Protection Plans;</li><li>g) a summary of Trans Mountain's consultation with appropriate federal and provincial authorities and any potentially affected Aboriginal groups, including any issues or concerns raised and how Trans Mountain has addressed or responded to them; and</li><li>h) the proposed measures and the schedule that Trans Mountain will implement to address any ongoing issues or concerns.</li></ul>
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