

March 16, 2015
BY ELECTRONIC MAIL

National Energy Board
444 Seventh Avenue SW
Calgary, Alberta T2P 0X8

Dear Ms. Young:

**Re: Hearing Order OH-001-2014
 Trans Mountain Pipeline ULC (Trans Mountain)
 Application for the Trans Mountain Expansion Project (Project)
 Reply to Trans Mountain's Response on the City's Notice of Motion
 for Full and Adequate Responses to Information Request No. 2**

Please find attached the City of Port Moody's reply to Trans Mountain's responses on the City's Notice of Motion for Full and Adequate Responses to Information Request No. 2. The City respectfully requests that the National Energy Board direct Trans Mountain to provide full and adequate responses to the City of Port Moody's Information Requests as set out in the attached chart.

Yours sincerely,



Kevin Ramsay
City Manager
Atts: 1

City of Port Moody

City’s Response to Trans Mountain’s response to Notice of Motion regarding Adequacy of Trans Mountain’s Response to Information Request No. 2
Attachment 1

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
1.1 (a)	Please provide Trans Mountain's definition of the word "significant", and the factors considered in reaching the conclusion of “No significant adverse effect” to the community of Port Moody stakeholders?	<p>In the response to City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8), the significance determination reiterated in the Preamble to this IR is specific to potential residual effects for a given study area. While the potential residual effects referenced in the response to City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8) are noted as relevant or of potential interest to Port Moody, it is not a significance determination for the City of Port Moody as an individual community.</p> <p>Trans Mountain notes that as explained further below, the use of the term ‘significant’ is related to requirements of the <i>Canadian Environmental Assessment Act, 2012 (CEA Act 2012)</i> and expectations for an Environmental and Socio-economic Assessment (ESA) required for a Project review by the National Energy Board (NEB). Trans Mountain did evaluate potential effects of altered vessel patterns on marine commercial users and business implications, but this evaluation was conducted at a regional scale, and is not specific to an individual community such as the City of Port Moody. This approach to assessing potential effects and evaluating their ‘significance’ is required for federal level decision making. Trans Mountain does not contemplate</p>	<p>The response did not address the City’s specific request on “factors” that were “considered in reaching the conclusion of “No significant adverse effect” to the community of Port Moody stakeholders”.</p> <p>Based on the response provided, the City understands that Trans Mountain has not and will not undertake an impact assessment on the local community of Port Moody, and based on a regional assessment, Trans Mountain believes that there is no significant impact on Port Moody. However, the response still did not provide the factors that were considered that led to this conclusion.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

		<p>completing a specific assessment for Port Moody businesses and communities, or for other communities or groups along the pipeline and marine shipping corridors.</p> <p>From a practical perspective, however, Trans Mountain wishes to continue to work with the City of Port Moody and other local government authorities so that in the event that Project approval is received, potential adverse socio-economic effects are avoided or minimized, and that potential business, employment, and economic opportunities are enhanced through appropriate mitigation and management measures to be implemented by Trans Mountain.</p> <p>Trans Mountain notes that the City of Port Moody’s motion requesting “specific and additional Port Moody community impact information” (Filing ID A3Y8D5) was denied in the NEB Ruling No. 33 – <i>Motions to compel full and adequate responses to the first round of intervenor information requests</i>, Appendix 1 (Filing ID A4C4H7).</p> <p>The page noted in the IR reference (Trans Mountain Response to City of Port Moody IR No. 1, PDF Page 5 of 85, Filing ID A3X5Z8) is discussing potential socio-economic effects associated with the increase in marine vessels (<i>i.e.</i>, tankers and associated tugs) related to the Trans Mountain Expansion Project (TMEP, or the Project) during operations. Section 4.3.1.7 of Volume 8A (Filing ID A3S4Y3) provides the definition and criteria of when a socio-economic residual effect is</p>			
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		<p>considered “significant” within the marine transportation context. The same definition and criteria applies within the pipeline and facilities context (Section 7.1 of Volume 5B [Filing ID A3S1S7]):</p> <p>Significant Residual Socio-economic Effect: A residual socio-economic effect is considered significant if the effect is predicted to be:</p> <ul style="list-style-type: none">• high magnitude, high probability, short to medium-term reversibility and regional, provincial or national in extent that cannot be technically or economically mitigated; or• high magnitude, high probability, long-term or permanent reversibility and any spatial boundary that cannot be technically or economically mitigated. <p>In the response to City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8), Trans Mountain noted that no significant adverse effects are anticipated in relation to the following potential residual effects:</p> <ul style="list-style-type: none">• <i>Disruption to Marine Access and Use Patterns During Construction and Operation</i> (Section 7.6.4.6 of Volume 5B [Filing ID A3S1S9]). Due to low to medium magnitude, no significant effect is anticipated. The spatial extent of this potential residual effect is defined in Table 7.6.4-2 and Table 7.6.4-3 of Volume 5B (Filing ID A3S1S9).• <i>Alteration of Existing Marine Vessel Movement Patterns</i> (Section 4.3.11.6.1 of Volume 8A [Filing ID A3S4Y3]). Due to low to medium magnitude, no significant			
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		effect is anticipated). The spatial extent of this potential residual effect is defined in Table 4.3.11.2 and Table 4.3.11.3 of Volume 8A (Filing ID A3S4Y3). • <i>Lost or Reduced Economic Opportunity for Marine Commercial Users</i> (Section 4.3.11.6.1 of Volume 8A [Filing ID A3S4Y3]). Due to low probability, no significant effect is anticipated. The spatial extent of this potential residual effect is defined in Table 4.3.11.2 and Table 4.3.11.3 of Volume 8A (Filing ID A3S4Y3).			
1.1 (b)(i)	If CEAA methodology was used, please provide evidence of how Trans Mountain applied CEAA's methodology and/or guide to interpreting the significance of effects in its determination of "No significant adverse effect" to the community of Port Moody stakeholders.	Refer to responses to City of Port Moody IR No. 2.1.01.a and the body of the response to No. 2.1.01.b above.	The response did not adequately address the City's response, specifically on evidence to demonstrate that the determination of "no significant adverse effect" to the community of Port Moody was based on CEAA methodology and guidance. The information provided in the other responses that Trans Mountain has referenced does not provide the information requested. The City requires a full and adequate response to its request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
1.1 (b)(ii)	If CEAA's methodology and/or guidance was not used, please provide rationale of why it was not used and what methodology was used to determine that "No significant adverse effect is anticipated".	Refer to the body of the response to City of Port Moody IR No. 2.1.01.b above.	Please see City's comments for 1.1(b)(i)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
1.1 (b)(iii)	Please provide evidence that demonstrates how "no significant adverse effect" to the community of Port Moody was determined. Please demonstrate that the determination included the assessment of all potential impacts, including but not	Please refer to the response to City of Port Moody IRs No. 2.1.01.a and the body of No. 2.1.01.b above. "No significant adverse effect is anticipated" on the page referenced in the IR preamble is stated in the response to City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8) in relation to the	The City's request stipulates evidence to support specific claims related to adverse effects on the Port Moody community. The response provided was not specific for the community, but rather applied to the region as a whole, and continues to reference	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

	<p>limited to impacts from oil spills, marine fire resulting from vessel accidents, and vessel collision, to all potentially impacted parties, including but not limited to, Port Moody residents (children, seniors, etc.), businesses, municipal operations, and other</p>	<p>potential residual effects of Alteration of Existing Marine Vessel Movement Patterns and Lost or Reduced Economic Opportunity for Marine Commercial Users as discussed in Section 4.3.11 of Volume 8A (Filing ID A3S4Y3), for a defined study area.</p> <p>Section 4.3.11 of Volume 8A (Filing ID A3S4Y3) discusses potential effects of Project-related marine vessels during routine operations, and does consider the potential occurrence and associated effects of collisions and other non-spill accidental interactions between Project-related marine vessels and other marine commercial, recreational and tourism users. Potential socio-economic effects of accidents and malfunctions, for example credible worst-case or smaller oil spills in Burrard Inlet are evaluated in Section 5.6.1 of Volume 8A (Filing ID A3S4Y8). Additional information on the socio-economic effects of oil spills is provided in the responses to City of Port Moody IR No. 2.3.15b, 2.3.24c, 2.3.24f, 2.3.24g, and 2.4.2a.</p> <p>The potential effects of credible worst case and smaller marine spills on marine users are discussed in Section 5.0 of Volume 8A (Filing IDs A3S4Y3, A3S4Y4, A3S4Y5, A3S4Y6, A3S5Q3, A3S4Y7, A3S4Y8, A3S4Y9, and A3S4Z0).</p>	<p>regional assessments that the City is already aware of. Regional assessments are not considered adequate for a clear understanding on the quantitative and qualitative impacts that the proposed Project may have on the Port Moody community.</p>		
1.1 (c)	<p>Please provide evidence of the consultation with Port Moody stakeholder groups and broader community that was used in the assessment of potential impacts and the determination of "No significant adverse impacts" to them, if any. Please demonstrate that how Trans Mountain assesses the adequacy of</p>	<p>Please refer to the response to City of Port Moody IR No. 2.1.01a for clarification and discussion of the words "no significant adverse effect is anticipated" on the page referenced in the IR preamble (PDF page 5 of 85 of the response to City of Port Moody IR No. 1 [Filing ID A3X5Z8]).</p>	<p>The City requests specific information on consultation with Port Moody stakeholders, rather than information on general public consultations, which Trans Mountain referenced in its reply.</p> <p>Specifically, the City is seeking <u>evidence</u> that consultation result <u>was used in the assessment of potential</u></p>	<p>Evidence of the consultation with Port Moody stakeholder groups and the broader community that was used in the assessment of potential impacts is presented in the response to City of Port Moody IR No. 2.2.01a (Filing ID A4H8G7, PDF pages 39-43). Non-spill related marine commercial, recreational and tourism use issues that emerged from Project-based consultation with and in marine communities, including the City of Port Moody, were considered in</p>	<p>The City reiterates that it is seeking <u>evidence</u> that consultation result <u>was used in the assessment of potential impacts and determination of "no significant adverse impacts"</u> to Port Moody community.</p> <p>The referenced documents in Trans Mountain's second response do not</p>

	<p>the consultation.</p>	<p>Please refer to Section 3.0 of Volume 8A (Filing ID A3S4X4) and Section 2.0 of Technical Report 8B-6 Marine Commercial, Recreational, and Tourism Use Technical Report – Marine Transportation (Filing ID A3S4K4) for a discussion of the consultation conducted and considered in the assessment of effects on marine commercial, recreational and tourism use (MCRTU) related to the increase in marine vessel traffic associated with the Trans Mountain Expansion Project (the Project). Non-spill related marine commercial, recreational and tourism use issues that emerged from Project-based consultation with and in marine communities, including the City of Port Moody, were considered in the assessment.</p> <p>Feedback related to the Project that was raised through various public consultation activities including public open houses, Environmental and Socio-economic Assessment (ESA) Workshops, Community Workshops and one-on-one meetings was considered in the pipeline and facilities Socio-economic Assessment (Volume 5B) (Filing IDs A3S1S7, A3S1S8, A3S1S9 and A3S1T0) and the assessment of MCRTU related to marine transportation (Volume 8A) (Filing ID A3S4Y3). The full description of these consultation activities are provided in Volume 3A Public Consultation (Filing IDs A3S0R2, A3S0R3, A3S0R4 and A3S0R5). Please also refer to the response to City of Port Moody IR No. 2.2.01a and No. 2.2.01d for a summary of consultation occurring with and in the City of Port Moody prior to the Application, as well as ongoing</p>	<p><u>impacts and determination of “no significant adverse impacts”</u> to Port Moody community.</p> <p>The response also did not specify the methods by which Trans Mountain assesses the adequacy of consultation.</p> <p>Additionally, the response references entire documents of the application, without specific reference to pages that would provide consultation information on Port Moody community groups and stakeholders.</p>	<p>the assessment of the particular effects referenced in the information request. Please refer to Section 2.3 of Technical Report 8B-6 Marine Commercial, Recreational, and Tourism Use Technical Report – Marine Transportation (Filing ID A3S4K4, PDF pages 611-612) for the discussion of how information and issues collected from other Project-related consultation activities informed the assessment of effects on marine commercial, recreational and tourism use (MCRTU) related to the increase in marine vessel traffic associated with the Trans Mountain Expansion Project (the Project).</p> <p>Trans Mountain’s response does specify the method by which Trans Mountain assesses the adequacy of consultation. The response notes that: Trans Mountain applies on-going engagement and communication with communities of interest. The on-going dialogue of this process allows for Trans Mountain to understand concerns and interests of the community, but also its desired level of engagement in the various elements of the Project. As part of that constant contact, any instance where a community might wish to see a higher or lesser level of engagement, Trans Mountain will work with that community to meet their needs, as is reasonable and appropriate.</p>	<p>include any information that addresses the City’s specific request. In particular, Trans Mountain notes that Section 2.3 of Technical Report 8B-6 Marine Commercial, Recreational, and Tourism Use Technical Report – Marine Transportation (Filing ID A3S4K4, PDF pages 611-612) consists of a “discussion of how information and issues collected from other Project-related consultation activities informed the assessment of effects on marine commercial, recreational and tourism use (MCRTU) related to the increase in marine vessel traffic associated with the Trans Mountain Expansion Project (the Project).” No such discussion is found in the referenced section of the document linked. Rather, the section simply refers to a highlight of consultation activities undertaken and a general statement stating that “The MCRTU assessment also drew on information and issues collected from other Project-related consultation activities” without further discussions on how information and issues collected from consultation activities were used. Additionally, the City sought information that relate to all impacts to the Port Moody, rather than non-spill related MCRTU alone.</p> <p>Such response is inadequate and the City reiterates that a full and adequate response is expected for the City’s information requests.</p>
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		<p>engagement.</p> <p>Trans Mountain Pipeline ULC (Trans Mountain) applies on-going engagement and communication with communities of interest. The on-going dialogue of this process allows for Trans Mountain to understand concerns and interests of the community, but also its desired level of engagement in the various elements of the Project. As part of that constant contact, any instance where a community might wish to see a higher or lesser level of engagement, Trans Mountain will work with that community to meet their needs, as is reasonable and appropriate. Trans Mountain will continue to work with local governments and other potentially impacted stakeholders, including the City of Port Moody, to resolve issues to the extent practical.</p>			
1.1 (c)(i)	If the above cannot be provided, please provide rationale of why consultation was not undertaken as part of the assessment to support the determination of "No significant adverse effect" to the community of Port Moody.	Refer to response to City of Port Moody IR No. 2.1.01c.	Please see City comments for 1.1(c).	Please refer to the response to 1.1(c).	Please refer to the response to 1.1(c).
1.1 (d)	Please provide specific measures that Trans Mountain will undertake as part of the proposed Project to mitigate adverse impacts to the community of Port Moody.	As stated in Trans Mountain's response to City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8), the potential adverse residual effect that is considered relevant to the Port Moody community from the construction and operations of the Westridge Marine Terminal is: Disruption to Marine Access and Use Patterns During Construction and Operation. Mitigation measures for this potential effect are provided in Section 7.6.4, Table 7.6.4-2 of Volume 5B (Filing ID A3S1S9) and include communicating with marine and local	The response provided general mitigation measures and information with regards to the general community, instead of mitigation measures that would be specific to address the impacts of the Port Moody community, as requested.	<p>While they are not unique to the City of Port Moody, the mitigation measures referenced in the response are the specific measures that Trans Mountain will undertake to mitigate adverse impacts to the City of Port Moody. The mitigation measures related to the construction and operations of the Westridge Marine Terminal (as noted in Table 7.6.4-2 of Volume 5B; Filing ID A3S1S9, PDF pages 15-17) include:</p> <ul style="list-style-type: none"> • Dock has been designed so that it will not interfere with existing anchorages, will remain within the east-west limits of the current water lot, and will allow the safe 	Excluding dock design, the additional response provided only pertains to various communication tools to notify various stakeholders on the anticipated construction activities, and does not provide substantive information on measures to mitigate adverse impacts to the community of Port Moody. No tangible action is identified. In addition, no commitment is made to address local impacts should they arise nor any process identified on how this would occur. The City requires a full and

		<p>fishing industry organizations, Aboriginal groups, marine recreation organizations and other affected stakeholders to provide Project information related to Project activities affecting marine use areas.</p> <p>Further, the response to City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8) also states that the following potential adverse residual effects are considered relevant to the Port Moody community as a result of the increase in Trans Mountain Expansion Project-related marine vessels (i.e., tankers and associated tugs) during the operations phase: Alteration of Existing Marine Vessel Movement Patterns and Lost or Reduced Economic Opportunity for Marine Commercial Users. Mitigation measures for these potential effects are provided in Section 4.3.11.4.2, Table 4.3.11.2 of Volume 8A (Filing ID A3S4Y3) and include providing regular updated information on Project-related marine vessel traffic to fishing industry organizations, Aboriginal communities, and other affected stakeholders, where possible through the Chamber of Shipping of BC and initiating a public outreach program prior to Project operations phase. With respect to Lost or Reduced Economic Opportunity for Marine Commercial Users through marine vessel collision or marine vessel wake on small fishing vessels, Trans Mountain notes that tanker owners have third-party insurance coverage in place to address vessel damage, gear loss or injury and Transport Canada and the Transportation Safety Board carry out investigations at the appropriate level in case of a collision between vessels. Please refer to the</p>		<p>passing of marine traffic [Table 7.6.4-2 of Volume 5B; Filing ID A3S1S9, PDF page 15].</p> <ul style="list-style-type: none">• Contact stakeholders, including municipal governments and marine use organizations, prior to construction activities. Provide maps and schedules of the construction activities [Section 4.0 of Westridge Marine Terminal Environmental Protection Plan, Filing ID A3S2S9, PDF pages 29-30] so that implications for marine use patterns can be considered• Ensure any changes in the construction schedule are communicated [Section 4.0 of Westridge Marine Terminal Environmental Protection Plan, Filing ID A3S2S9, PDF page 30].• Place an announcement in local papers notifying the public and marine users of the location and timing of construction activities at least 14 days prior to activities [Section 4.0 of Westridge Marine Terminal Environmental Protection Plan, Filing ID A3S2S9, PDF page 30].• Discourage unauthorized marine vessel access at the Westridge Marine Terminal through use of signs, markers and/or buoys [Section 7.0 of Westridge Marine Terminal Environmental Protection Plan, Filing ID A3S2S9, PDF page 39].• Place warning signs (<i>e.g.</i>, Warning – Construction in the Vicinity) offshore and onshore, near construction activities. The signs are to be legible at a distance of 50 m [Section 4.0 of Westridge Marine Terminal Environmental Protection Plan, Filing ID A3S2S9, PDF page 30].	<p>adequate response to its request, and not mere statements on communication efforts planned by Trans Mountain.</p>
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		<p>response to NEB IR No. 3.007a (Filing ID A4H1W9) for further discussion on the proposed public outreach program associated with Project-related marine vessel traffic.</p>		<ul style="list-style-type: none">• Ensure barges used for heavy equipment access are placed (anchored or spudded down) in appropriate areas with minimal impacts [Section 8.2 of Westridge Marine Terminal Environmental Protection Plan, Filing ID A3S2S9, PDF page 56].• Notify appropriate regulatory authorities and licensees and/or distribute a notification to the shipping industry in order to advise commercial and recreational marine operators of the Project schedule and construction activities at the Westridge Marine Terminal [Section 4.0 of Westridge Marine Terminal Environmental Protection Plan, Filing ID A3S2S9, PDF page 30]. <p>Communicate with marine and local fishing industry organizations, Aboriginal groups, marine recreation organizations and other affected stakeholders to provide Project information related to Project activities affecting marine use areas [Table 7.6.4-2 of Volume 5B; Filing ID A3S1S9, PDF page 16].</p> <p>The City of Port Moody and marine use organizations/stakeholders in Port Moody will be part of Trans Mountain’s communication and engagement leading up to and through construction and through operations, subject to Project approval. Trans Mountain will work with the City of Port Moody to ensure on-going communication to provide Project information related to Project activities affecting marine use areas occurs in a mutually agreeable and effective manner.</p> <p>Trans Mountain is committed to continued interaction with the City of Port Moody to ensure Port Moody is aware of, and engaged in, the development of the enhancements to overall emergency response capacity associated with the</p>	
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				<p>Project, as it relates to emergency response situations which may impact Port Moody. Mitigation measures related to the movement of Project-related marine vessels to and from the Westridge Marine Terminal, including those beyond the authority of Trans Mountain (as noted in Table 4.3.11.2 of Volume 8A; Filing ID A3S4Y3, PDF pages 156-161), include:</p> <ul style="list-style-type: none">• Project tankers shall utilize the common shipping lanes, already used by all large commercial vessels for passage between the Pacific Ocean and Port Metro Vancouver (PMV).• Trans Mountain will continue to provide information about Project-related shipping to other marine users. <p>Specifically:</p> <ul style="list-style-type: none">– provide regular updated information on Project-related marine vessel traffic to fishing industry organizations, Aboriginal communities, and other affected stakeholders, where possible through the Chamber of Shipping of BC (COSBC); and– initiate a public outreach program prior to Project operations phase. Communicate any applicable information on Project-related timing and scheduling with fishing industry organisations, Aboriginal communities and other affected stakeholders (see the response to NEB IR No. 3.007a [Filing ID A4H1W9] for further discussion on the proposed public outreach program associated with Project-related marine vessel traffic). <ul style="list-style-type: none">• Transport Canada requires all vessels, including tankers, to comply with the <i>International Regulations for Preventing Collisions at Sea</i> (with Canadian Modifications) and other major international maritime	
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1.1 (d)(i)	Please identify whether or not these mitigation measures will form part of the Conditions for the proposed Project.	<p>In accordance with National Energy Board (NEB) Draft Condition 31 as outlined in the NEB’s <i>Letter – Draft Conditions and Regulatory Oversight (April 16, 2014)</i> (NEB 2014; Filing ID A3V8Z8), Trans Mountain is prepared to file with the NEB, within 90 days prior to commencing construction, an updated Westridge Marine Terminal Environmental Protection Plan for the Project. Many mitigation measures for the potential residual effect <i>Disruption to Marine Access and Use Patterns During Construction and Operation</i> are included in the Westridge Marine Terminal Environmental Protection Plan (Volume 6D, Filing ID A3S2S9) and, therefore, subject to NEB Draft Condition 31. However, questions about final conditions related to the Project should be directed to the NEB.</p> <p>With respect to the Project-related increase in marine vessel traffic, the mitigation measures identified in the Application and discussed in the body of the response to Port Moody IR No. 2.1.01d have been proposed by Trans Mountain to TERMPOL, a voluntary review process that focuses on vessel safety and vessel operation safety in Canadian waters along the proposed shipping routes. In its report on the proposed Project, the TERMPOL Review Committee (TRC) commented “The existing Canadian marine laws and regulations, including international frameworks, complemented by the</p>	Trans Mountain states that “questions about final conditions related to the Project should be directed to the NEB”. The City therefore requests that NEB provide a response to this request.	In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information goes beyond what is relevant, given the scope of the defined Project and the Board’s List of Issues. Topics beyond the Board’s List of Issues or requests dealing with the continued operation of Line 1 under its current operating conditions are not before the Board as part of this hearing. Rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.	<p>Trans Mountain’s response is irrelevant to the City’s Motion. The City’s request is not beyond the List of Issues identified and is directly related to the Draft Conditions to the proposed Project.</p> <p>The City requests that NEB provide a response to this request and was not seeking a response by Trans Mountain.</p>

		enhanced safety measures Trans Mountain has in place or is committed to implementing and the recommendations contained within this report will provide for safer shipping in support of the proposed Project” (TRC 2014). For a summary of measures that were proposed to TERMPOL, including a response to each of the 17 recommendations and 31 findings of the TRC, refer to Trans Mountain Response to NEB IR TERMPOL Report and Outstanding Filings (Filing ID A4G3U5). The NEB is not the regulatory authority for marine shipping, therefore, Trans Mountain does not anticipate conditions related to mitigation measures which pertain to marine shipping operations. However, questions about final conditions related to the Project should be directed to the NEB.			
1.1 (d)(ii)	If not, please provide evidence of Trans Mountain’s commitment to implement these mitigation measures, and the compensation that would result if and when Trans Mountain failed to deliver these mitigation measures and/or adequately mitigate the adverse impacts to Port Moody stakeholders.	Trans Mountain is committed to implementing all the mitigation measures outlined the Application. Trans Mountain believes that potential impacts will be managed and compensation will not be required in relation to marine vessel movement patterns during construction and normal operations of the Project.	<p>The response provided represents statements of non-legally binding commitments, rather than <u>evidence</u> that Trans Mountain will implement mitigation measures, as requested.</p> <p>Additionally, Trans Mountain also restricts its comments on mitigation and compensation on impacts from marine vessel movement pattern, which, without a local-Port Moody-specific impact assessment’s determination, does not necessarily represent all adverse impacts to the community of Port Moody.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
1.1 (d)(iii)	If no specific mitigation measures are planned, please provide rationale.	Refer to the body of the response to City of Port Moody IR No. 2.1.01d.	Please see City’s comments for 1.1 (a) to (d)(ii).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further	Please see City’s comments for 1.1 (a) to (d)(ii).

				response is required.	
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IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
1.3(a)	It is the City's understanding based on the response of Trans Mountain to the City's IR No.1 Question 1.1.2 (c) that there is currently no abandonment funds set aside for any of Trans Mountain's pipeline infrastructure. Please confirm that this understanding is accurate. And if so, please provide a rationale on why Trans Mountain has not established such funds.	Trans Mountain does not intend to abandon its pipeline in the near term, however, in preparation for that eventuality, on January 1, 2015 Trans Mountain commenced the collection and set-aside of pipeline abandonment funds. The pipeline abandonment funds will be collected from shippers on the pipeline over a period of forty years and set-aside in trust. Trans Mountain will be responsible to ensure that sufficient funds are available in the trust when the pipeline is abandoned. Trans Mountain will commence the preparation of annual financial reports with respect to abandonment funds held in trust and the first report will be filed with the National Energy Board in January 2016.	The response provided does not specify details necessary to obtain clarity on the response. Specifically, the response does not address: <ul style="list-style-type: none"> Whether or not the abandonment fund to be collected beginning January 1, 2015 will be for existing vs. proposed infrastructure; and The meaning of "sufficient funds" and how that would be determined for the proposed infrastructure. 	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required. The request is for new information. Seeking more specific information or more details in the motion to compel full and adequate responses is essentially a request for new information and is not permitted under Ruling No. 33. Rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.	The City's did not request new information in its Motion. The City's request is to be provided with clear information on the availability of abandonment fund set aside for Trans Mountain's pipeline infrastructure. The original response lacks clarity and substantive information to address the City's original question. The City's Motion sought to obtain clarity on items such as whether or not Trans Mountain's original response was about the proposed infrastructure or the existing infrastructure, rather than for new information as Trans Mountain's response to the City's Motion suggests. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
1.3(c)	Please provide details of the consultation process to be undertaken to determine the process and the amount of abandonment funds for the Project, as well as the coverage of the said funds.	Trans Mountain has already commenced the collection and set-aside of pipeline abandonment funds on January 1, 2015 pursuant to the outcome of the MH-001-2013 Set-aside and collection mechanism proceeding. If the Project is approved and prior to the Project going into service Trans Mountain will update and file with the Board a request for approval of the new abandonment cost estimate and the corresponding amount of funds that Trans Mountain will collect from shippers. Trans Mountain will undertake regular reviews of the funding status once the Project is in service to ensure that over time sufficient funds are collected by Trans Mountain to fund the eventual abandonment of the expanded pipeline system. Financial information regarding the status of the	The City's request is specific to consultation process related to the determination of the amount of abandonment funds for the Project. However, the response did not discuss any consultation process related to the aforementioned issue. Based on the response, the City understands that there will be no consultation activity related to the determination of the abandonment fund. Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.	In 2007, the National Energy Board (NEB) established the Land Matter Consultation Initiative (LMCI). The LMCI was addressed in four topic streams including Stream 3: Pipeline Abandonment – Financial Issues. The NEB convened a public hearing to consider the financial issues related to pipeline abandonment and in May 2009, the NEB issued RH-2-2008 Reasons for Decision. In RH-2-2008, the NEB set out a Framework and Action Plan for all pipeline companies under the NEB Act and directed those companies to comply with the steps as set out in the Framework and Action Plan. In accordance with the Action Plan, as amended, Trans Mountain filed an Application for approval of its Abandonment Cost Estimate which was the subject of a public hearing pursuant to	The new information provided by Trans Mountain is based on past events, which presumably are consultation events related to abandonment funds of the existing infrastructure, as the proposed pipeline expansions were not approved between 2007 and 2012. The City specifically requests information on consultation activities related to the abandonment funds for the proposed Project, should it be approved. The response provided by Trans Mountain to the City's Motion does not provide the information requested. Based on the response, the City understands that there will be no consultation activity related to the determination of the abandonment fund. Please confirm that the City's understanding

		<p>abandonment funds held in trust will be filed annually with the National Energy Board and made available to stakeholders via Trans Mountain’s website. The first annual financial report will be filed in January 2016 and the audited financial statements of the trust will be available no later than June 30 of each year.</p>		<p>Hearing Order MH-001-2012. MH-001-2012 Reasons for Decision was issued by the NEB in February 2013. In addition, Trans Mountain filed an Application for approval of its set-aside and collection mechanism for abandonment funds. This application was also the subject of a public hearing, the results of which are summarized in MH-001-2013 Reasons for Decision. Any future changes to the Abandonment Cost Estimate or the Abandonment Funding as a result of the Project would be brought forward to the NEB through an Application and would be subject to the Approval of the NEB.</p>	<p>as stated above accurately reflects Trans Mountain’s response.</p>
1.3(f)	<p>Please provide rationale if any of the above cannot be provided.</p>	<p>Not applicable.</p>	<p>Please see City’s comments 1.3 (a) and (c).</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Please see City’s comments 1.3 (a) and (c).</p>

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
1.4 (a)	Please provide rationale and evidence to support the use of the multiplier developed for the estimated employment benefits of the TMEP proposal.	<p>The economic impacts are not estimated using a multiplier. Instead information on how the spending associated with project was input into Statistics Canada's Input/Output (I/O) model to determine the GDP and employment impacts.</p> <p>For example, for the project development stage, the input was \$4.6 billion in spending. The \$4.6 billion was distributed to different commodities groups in the I/O model by The Conference Board of Canada, based on guidelines from Trans Mountain in terms of how the investment would breakdown in the different phases of the project. Statistics Canada also provided advice on the appropriate way to implement certain types of spending in their model to properly measure the impact.</p> <p>The multipliers in this case are a result of how the spending associated with the project was input into Statistics Canada's model. In short, the multipliers were an outcome of the process, not an input.</p>	<p>The City appreciates the clarification that was provided by Trans Mountain in its response. However, the response did not address the nature of the question, which is the rationale and evidence to methodology and specific inputs that were chosen for the modelling to determine the employment benefits of the TMEP proposal.</p> <p>The City hopes that the above clarification of the nature of the City’s original request will help Trans Mountain’s provide a full and adequate response to the City’s inquiry.</p>	<p>An explanation of the methodology and inputs was provided in the direct evidence of the Conference Board of Canada (Filing ID A55987). The following additional information is provided.</p> <p>In terms of the methodology, the Statistics Canada's I/O model is the only widely accepted Canadian model for measuring project impacts, particularly when the project is small relative to the total economy and it is necessary to capture the interregional and inter-industry impacts, as is the case for the TMEP. The model is widely used by government departments and agencies, as well as private organizations, to assess economic impacts. The CBoC regularly conducts economic impact assessments of a wide variety of projects and activities, and the I/O model framework is the model that the Conference Board uses. Statistics Canada’s I/O model is a detailed representation of the linkages in the Canadian economy and is broken down on a province-by-province basis. Therefore, when there is an increase in spending in a particular industry or commodity, the model estimates the expected impacts throughout the economy i.e. it shows the “ripple” effects caused by an initial increase in expenditure. When it is “shocked” with an increase in spending, the model estimates the expected impacts on all of the connected sectors. In this way, it generates the expected increase in economic activity that will occur in the provincial and national economies because of an increase in spending associated with the Project. In terms of specific inputs, The Project’s capital cost estimate was provided by Trans Mountain and adjusted by the Conference Board to estimate the economic impact of the development phase of the Project, as described in the Conference Board report. Trans Mountain provided an estimate of the average</p>	<p>The additional response provided more detail on the I/O model, but fails to provide rationale and evidence to support why this model was used, apart from that it is “widely accepted”.</p> <p>The referenced filing links to an entire document folder consisting of 46 different files and puts the onus on the Intervenor to find the “explanation of the methodology and inputs” in the response.</p> <p>The City reiterates that it requires a full and adequate response to the City’s inquiry, which requests for evidential support for the methodology and inputs used to model the employment benefits of the TMEP proposal.</p>

				<p>fixed toll rate for 2018 to the Conference Board, which the Conference Board used to estimate the annual revenue and operational impacts of the Project, as outlined in the Conference Board Report and in the responses to Eliesen M IR No. 1.6x and Eliesen M IR No. 1.6aa (Filing ID A3X6D1).</p> <p>As explained in the response to the IR, the CBoC input these figures into the I/O model based on its own experience with I/O models, and consultation with Statistics Canada on the appropriate way to implement the shocks. This involves matching expenditures information provided by Trans Mountain with commodity categories in the I/O model. Many of these are very straightforward. For example, there are commodity categories for many expenditure items, such as engineering and pipe. The results generated by the I/O model provide the GDP and employment impacts for the Project.</p>	
1.4 (b)	<p>Please provide information on the degree of confidence associated with the multiplier used.</p>	<p>As explained in the response to City of Port Moody IR No. 2.1.04a, multipliers were not used to conduct the economic impact analysis; thus, confidence intervals for those multipliers cannot be provided. However, Trans Mountain is very confident in the methodology, data sources, assumptions and the results of the analysis completed by the Conference Board.</p>	<p>Please see City's comments for 1.4(a). The City requires information on the degree of confidence for the inputs used in the model.</p>	<p>The capital cost estimated provided by Trans Mountain is the Initial Cost Estimate and is considered to be a Class IV estimate, in general accordance with American Association of Construction Engineers (AACE) international recommended practices, and has a deemed accuracy of +35%/-22.5%.</p> <p>The fixed toll estimates provided by Trans Mountain are based on the Project's capital cost estimates, and should be considered to have a deemed accuracy within the range provided above for the capital cost estimate.</p> <p>A margin of error or confidence interval around the economic impacts cannot be estimated because the distribution of the errors is unknown. This is partly why the economic impacts associated with the project operations are presented in a minimum versus maximum range.</p>	<p>Based on the response provided, the City understands that the estimated benefits of the proposed Project (including employment benefits) has a deemed accuracy of -22.5% to +35%.</p> <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
1.7(a)	Please provide details on how Trans Mountain plans to “support the City of Port Moody’s ability to meet its social, economic, and community development goals” through increases in municipal taxes, when there is no forecasted increase in tax revenue to Port Moody associated with the proposed Project.	As noted in the Application, as well as in the preamble and reference of this IR, municipal tax benefits associated with the Trans Mountain Expansion Project (the Project) will accrue to municipalities and regions crossed by the Project. Also as noted in the preamble and reference, no Project activities will occur in the City of Port Moody and as such no increase in municipal tax revenues associated with the Project will occur in the City of Port Moody. With regard to the sentence in the application (which is referenced in the preamble) which states “the increase in taxes and associated benefit will extend to all municipalities/regions crossed by the Project and residents living in all areas within nearby communities and regions” (Section 7.2.7 of Volume 5B, PDF page 186 of 245 Filing ID A3S1S7), the word “nearby” should be replaced with the word “those”.	<p>While the response has clarified a mistake in a sentence that generalizes tax and associated benefits within the Application, the response did not clearly address the City’s request in regards to the methods of which the City of Port Moody would be supported. Therefore, based on the response, the City understands that the project will not support the City of Port Moody’s ability to meet its social, economic, and community development goals through increases in municipal taxes.</p> <p>The City requests that this request be resubmitted to Trans Mountain to ensure that the City’s understanding on the response is accurate.</p>	<p>Trans Mountain confirms that the Project will not result in increased municipal taxes provided by Trans Mountain to the City of Port Moody. Given the City of Port Moody’s location within the Metro Vancouver region, other ways in which the Project will support economic benefits is through regional employment opportunities, as well as procurement and contracting opportunities for local businesses, during construction and operations of the pipeline and associated facilities. Trans Mountain is committed to maximizing local, regional and Aboriginal participation in employment and procurement opportunities associated with the Project. Specific measures that Trans Mountain will undertake to enhance employment and procurement-related economic opportunities for nearby communities, including the City of Port Moody, (as noted in Table 7.2.7-2 of Volume 5B; Filing ID A3S1S7, PDF pages 162-163) include:</p> <ul style="list-style-type: none">• Create an online employment communications tool where potential workers who are interested in employment can register to receive regular updates;• Develop and implement a program to enhance awareness of pipeline and facilities construction and operations jobs and career opportunities in cooperation with business, industry, community and education and training organizations;• Include regional employment clauses in all Project contracts;• Give first consideration for	No further information from Trans Mountain is required for this request.

				<p>employment opportunities to qualified regional and Aboriginal residents with appropriate skills and qualifications, where possible;</p> <ul style="list-style-type: none">• Develop and provide typical job descriptions, including skills and qualifications required to support employment opportunities;• Ensure contractors communicate upcoming employment opportunities directly to Project area employment offices, women’s organizations and Aboriginal communities and organizations;• Require that contractors report to Trans Mountain their steps taken to attempt to hire within the Project area and nationally, and report the number of hires from Project area Aboriginal residents and other regional residents;• Maintain an online procurement registry where interested parties can register their capabilities and express interest in providing goods or services to the Project;• Develop and implement a process to share information at the regional level in a timely manner about general Project procurement needs and required qualifications, so businesses can prepare;• Work with contractors to give first consideration to qualified regional suppliers of goods and services, where practical and in conformance with procurement policies;• Require Project contractors to identify, track and report Aboriginal, regional, provincial and Canadian content in their regular reporting to	
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				<p>Trans Mountain.</p> <p>The responses to NEB IR Nos. 1.24a, b, c and d (Filing ID A3W9H8) outline further details regarding Trans Mountain’s approach to enhancing local, regional and Aboriginal employment opportunities. The responses to NEB IR Nos. 1.25a and b (Filing ID A3W9H8) outline further details regarding Trans Mountain’s approach to enhancing local, regional and Aboriginal business opportunities. Trans Mountain is in the process of developing an Aboriginal, Local and Regional Skill and Business Capacity Inventory, as per National Energy Board (NEB) Draft Condition No. 8 (Filing ID A3V8Z8). Trans Mountain will also develop and submit Aboriginal, Local and Regional Employment and Business Opportunity monitoring reports, as per NEB Draft Condition No. 44 (Filing ID A3V8Z8). Project-related employment for Port Moody residents will indirectly support the community’s social and community development goals. Several Trans Mountain employees and contractors live in the City of Port Moody and contribute to the community in terms of municipal taxes, and supporting local businesses and community organizations.</p> <p>Trans Mountain and the Kinder Morgan Foundation grant community investment requests from organizations in Port Moody, including recent contributions to Crossroads Hospice, Port Moody Rotary Ribfest 2015, Links to Literacy Golf Tournament, Pleasantside Elementary School and Tri-Cities Chamber of Commerce Business Excellence Awards.</p>	
1.7(b)	Please provide details on how Trans Mountain plans to compensate the potential operational resource and	Demands upon municipal services and infrastructure from Trans Mountain Pipeline ULC (Trans Mountain) can	The response provided general statements of compensation and reimbursement for “reasonable costs”, however provides	As indicated in the original response, Trans Mountain believes there will be little, if any, additional costs for municipal services and	The new response does not provide the clarity required for the City to fully understand whether or not its

	<p>service demands associated to the proposed Project to the City, including costs of emergency preparedness planning and exercises for major oil spill disasters and tanker accidents, and additional resource demands on first responders, etc., in light of zero increase in tax contribution from Trans Mountain to the City.</p>	<p>generally be categorized into three groups: (1) requirements during construction; (2) requirements during operations; and (3) exceptional requirements resulting from an accident or malfunction.</p> <p>(1) Requirements during Construction Trans Mountain believes there will be little, if any, additional costs for municipal services and facilities in the City of Port Moody associated with the Project, given no new facilities are being proposed in Port Moody.</p> <p>During construction of the Trans Mountain Expansion Project (Project), Trans Mountain expects to draw upon municipal staff and resources to support safe construction of the Project. Trans Mountain is prepared to reimburse municipalities for reasonable costs and staff time required to monitor and assist Trans Mountain workers in constructing the Project on municipal lands and in locations where municipal services are located (either parallel to or crossed by Project).</p> <p>It is reasonable to reimburse municipalities for any modifications to their existing infrastructure required to accommodate the Project – part of those reimbursements are expected to include reasonable staff time to plan for and review detailed design plans.</p> <p>Trans Mountain will also pay for any changes or modifications to municipal services and infrastructure required to facilitate the construction of the Project. In the planning and design of the Project, Trans Mountain is willing to work with</p>	<p>inadequate details on what these statements entail.</p> <p>Specifically, the response leads to remaining questions related to the request, including but not limited to:</p> <ul style="list-style-type: none">• What is “reasonable” cost?• What is eligible for reimbursement?• What is not eligible for reimbursement?• What are the mechanisms for reimbursements and claims? <p>Additionally, the response claims that the tax revenue to the Province of BC would “likely...result in some benefits to the City”, but provides no factual evidence to support such claim. These general statements do not provide the adequate <u>details</u> needed for the City to fully understand whether or not its potential operational resource and service demands associated to the proposed Project to the City would be adequately compensated for.</p>	<p>facilities in the City of Port Moody associated with the Project, given no new facilities are being proposed in Port Moody. Therefore, any potential costs to Port Moody would be speculative and based upon a low probability spill event. In the event of a spill from operations at the Westridge Terminal, under Section 75 of the NEB Act, Trans Mountain would be responsible for all damages sustained by the City of Port Moody and would provide compensation for such damages. Trans Mountain would expect Port Moody to provide supporting documentation for any claims for damages, and that those claims would be reasonable and directly related to the damages incurred.</p>	<p>potential operational resource and service demands associated to the proposed Project to the City would be adequately compensated for. In particular, the additional response did not address specific questions to seek clarity on Trans Mountain’s original response, as explained in the City’s Motion.</p> <p>The City reiterates that it requires a full and adequate response to its information requests.</p>
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		<p>municipalities to accommodate reasonably foreseeable plans for municipal infrastructure including roads and utilities in the design and placement of the pipeline.</p> <p>More specifically, Trans Mountain is committed to working cooperatively with municipalities in the development of the Project, including:</p> <ul style="list-style-type: none">• working with municipalities in the planning, engineering, and detailed design to accommodate future growth and minimize potential future impacts to existing infrastructure;• paying for reasonable costs to inspect, relocate (if needed), and protect their infrastructure during Project construction;• working with municipalities to fulfill federal requirements for pipeline protection including ground disturbance measures as required by the National Energy Board; and• constructing and operating the Project and the existing Trans Mountain Pipeline system in accordance with practices and procedures that are consistent with all other utility service and development infrastructure. There are established rules and protocols that must be met for the protection of the pipeline and municipal infrastructure, including formalized crossing agreements between infrastructure owners. Trans Mountain expects these rules and protocols will not be different than the processes currently used for the protection of the existing operating pipeline and for municipal development in proximity and directly over/under the pipeline.			
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		<p>(2) Requirements during Operations</p> <p>Municipalities are responsible for the provision of conventional municipal services that include law enforcement, traffic planning and management, municipal infrastructure, emergency response services and other services normally provided by a municipality to its citizens. In communities where Trans Mountain operates, it contributes to the costs of such services through municipal taxes and typically draws little on municipal services given the nature of standard pipeline operations. Trans Mountain currently contributes approximately \$16,000 to the municipal tax base for the City of Port Moody annually, which will continue once the Project is operations. Trans Mountain has estimated that the Project will result in \$309 million and \$727 million of additional tax revenue to the Province of British Columbia for development and 20 year operations, respectively (Application, Volume 2, Page 2-42, Filing ID A3S0R0). It is likely that the additional tax revenue to the Province would result in some benefits to the City. Trans Mountain also contributes to the community by providing funds for the support of community events and groups through its Community Investment Program. Trans Mountain would not expect to pay additional amounts to a municipality for the existing Trans Mountain Pipeline system or the Project over and above the standard costs assessed for similar businesses for the provision of standard municipal services.</p> <p>Trans Mountain believes there will be little, if any, additional costs associated with the</p>			
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		<p>Project to the City of Port Moody, given the Trans Mountain facilities in Port Moody are limited to the pipeline to the Suncor Refinery. Furthermore, Trans Mountain believes that the Project will provide material benefits to the City of Port Moody, either directly or indirectly.</p> <p>Once the Project is in operation, Trans Mountain will cover the costs of Trans Mountain employees required to monitor and assist municipalities in undertaking facility construction proximate to the Trans Mountain Pipeline system. Where municipalities require changes or modifications to the Trans Mountain Pipeline system to facilitate their activities, or where work undertaken by a municipality results in damage to the system, Trans Mountain reserves the right to require the municipality to reimburse Trans Mountain for those costs, as is the normal course of business among utilities.</p> <p>In general, Trans Mountain expects to reach voluntary agreements with municipalities outlining its responsibilities for municipal infrastructure costs and reimbursements. Trans Mountain expects these agreements to address roads and utilities. Should municipalities be of the opinion that the operations related to the Trans Mountain Pipeline system have caused them directly related damages as defined in the National Energy Board Act which are not covered under the municipal agreements, Trans Mountain would look to the municipality to provide information and documentation as to the nature and extent of the perceived damages. That information can be provided to Trans Mountain’s Manager, Land. Using the information received, through</p>			
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		<p>discussions with the municipality, if Trans Mountain determines that damages resulted from the company’s operations, it will provide any commensurate compensation due to the affected municipality.</p> <p>Maintaining the integrity of the pipeline and protecting the safety of its workers, neighbours and the public as a whole is Trans Mountain’s first operating objective. To support that objective, Trans Mountain maintains robust pipeline protection and emergency response programs. As part of the emergency response program, Trans Mountain organizes emergency response training tailored to the pipeline industry to ensure its workers are ready and able to respond should an emergency occur. Trans Mountain invites local municipalities to send members of their first response teams to the Trans Mountain training and response exercises to enhance their capability to respond to incidents. Trans Mountain is committed to working collaboratively with organizations, both public and private, to ensure there is a mutual understanding of how the pipeline and/or operations at facilities could impact those organizations. In addition to offering training, Trans Mountain is willing and able to review emergency response plans, share information on our operations, and provide advice on proper response techniques. Trans Mountain recognizes that the training and skills provided through emergency response exercises are mutually beneficial to municipalities and municipal employees and assists them in responding to other incidents unrelated to Trans Mountain facilities. For such training, Trans Mountain</p>			
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		<p>covers the costs associated with instruction, but does not cover costs associated with attendance, such as responder wages, benefits and employment costs.</p> <p>(3) Exceptional Requirements Resulting from an Accident or Malfunction</p> <p>In exceptional circumstances, if there is an accident or malfunction that results in damages to third parties (including municipalities), Trans Mountain is obligated under Section 75 of the <i>National Energy Board Act</i> to cover those damages. For example, in the case of a spill or pipeline rupture, Trans Mountain is responsible for its liabilities. It is Trans Mountain’s responsibility to have the financial resources in place to cover those costs. Where the spill or rupture is caused by a third party, however, such as what occurred in Burnaby in 2007, Trans Mountain has the right to pursue recovery of those costs through insurance or from the third party responsible for causing the damage. Irrespective of fault, Trans Mountain will initiate the response including containment, recovery, and mitigation.</p> <p>Trans Mountain has completed a comprehensive risk assessment for a marine spill and has concluded that the Project changes little in this regard. Potential consequences already exist and the risk assessment shows that the credible worst case event for Burrard Inlet is a 100 m3 spill during cargo transfer at the Westridge Marine Terminal, which would largely be contained by the pre-deployed oil spill containment boom. The risk assessment shows the probability of such</p>			
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		an event occurring is once in 234 years. As a result, Trans Mountain believes that the Project will not place material additional demands on Port Moody's operational resources and services.			
1.7(b)(i)	Please provide commitment on plans to pay for all costs incurred by the City.	<i>Not directly referenced.</i>	This request is not directly addressed.	Please see the response to 1.7 (b).	Please refer to response to 1.7(b).
1.7(b)(ii)	If there is no commitment to pay for costs incurred by the City, please provide rationale for placing the cost burden onto Port Moody's tax payer community. In addition, please provide an assessment on how the additional costs to the City will impact the City's ability to meet its social, economic, environmental, and community development goals, including potential decrease in its ability due to resource constraints and reallocation for additional emergency preparedness measures to achieve adequate preparation for a major oil-related disaster in the Burrard Inlet.	<i>Not directly referenced.</i>	This request is not directly addressed.	Please see the response to 1.7 (b).	Please refer to response to 1.7(b).
1.7(d)(i)	Please provide a rationale if the above cannot be provided.	Please refer to the response to City of Port Moody IR No. 2.1.07d.	Please see City's comments on 1.7(a) to (b)(ii).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 1.7(a) to (b)(ii).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
1.8(a)	Please provide an assessment of how construction and operation of the proposed expansion of the dock complex at Westridge Marine Terminal, and the associated increase in marine tanker traffic in the Burrard Inlet, will affect shipping exports and marine uses by Port Moody businesses. Please provide measures to be implemented to avoid and mitigate potential impacts.	<p>Please refer to Trans Mountain Pipeline ULC’s (Trans Mountain) response to Port Moody IR No. 2.1.01d for information regarding the assessment of potential effects of the construction phase of the proposed Trans Mountain Expansion Project (TMEP, or Project) (<i>i.e.</i>, construction of the expanded dock complex at Westridge Marine Terminal), and of the Project-related increase in marine vessel traffic. Trans Mountain considers that the potential effects of the proposed Project on shipping exports and marine uses by commercial marine users, including Port Moody businesses, have been sufficiently addressed in the Application (please refer to Section 7.6.4, Table 7.6.4-2 of Volume 5B, Filing ID A3S1S9 and Section 4.3.11.4.2, Table 4.3.11.2 of Volume 8A, Filing ID A3S4Y3), the referenced IR response, and to City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8).</p> <p>Trans Mountain does not intend to conduct any further assessment on the potential effects of the Project on marine use and shipping exports of Port Moody businesses. The assessment provided is considered to be an appropriate level of detail to inform the development of Project-specific mitigation measures and to assist in federal-level decision-making. Analyses of potential inter-industry economic effects is not a requirement as it pertains to employment and economy in the National Energy Board (NEB) Filing Manual (National Energy Board 2014).</p> <p>Further, as noted in Trans Mountain’s response to Port Moody IR No. 2.1.01a, Port Moody’s motion requesting “specific and additional Port Moody</p>	<p>The response attempts to aggregate Port Moody businesses as part of a larger group of commercial marine users and does not provide specific impacts towards Port Moody businesses as requested.</p> <p>Nor does the response provide details of the measures to be implemented to avoid and mitigate potential impacts to Port Moody businesses.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

		community impact information” (Filing ID A3Y8D5) was denied in the NEB Ruling No. 33 – <i>Motions to compel full and adequate responses to the first round of intervenor information requests</i> , Appendix 1 (Filing ID A4C4H7).			
1.8(b)	Please provide an assessment of how construction and operation of the proposed expansion of the dock complex at Westridge Marine Terminal, and the associated increase in marine tanker traffic in the Burrard Inlet, will affect other users of Port Moody’s marine environment, including but not limited to recreational boating, sea-kayaking, recreational fishing, scuba diving, and related marine-use activities. Please provide measures to be implemented to avoid and mitigate potential impacts.	<p>Section 7.6.4 of Volume 5B (Filing ID A3S1S9) and Section 4.3.11.4.2 of Volume 8A (Filing ID A3S4Y3) assess the potential effects of the construction phase of the proposed Project (<i>i.e.</i>, construction of the expanded dock complex at Westridge Marine Terminal), and of the Project-related increase in marine vessel traffic on other marine users throughout Burrard Inlet, respectively. The assessment of potential effects is considered to apply equally to all marine users, including users of Port Moody’s marine environment (<i>e.g.</i>, marine commercial users, tourism users, and recreational users such as boaters, fishers, kayakers and scuba divers). Mitigation measures to avoid and mitigate potential impacts are also provided in the above-noted effects assessments.</p> <p>Further information specific to the safety of small recreational vessels in Burrard Inlet with respect to the proposed Project is provided in a recreational boat traffic survey as part of a supplemental filing (Technical Update #2, Filing IDs A4A4I4, A4A4I5, and A4A4I6). Small recreational vessels are not typically fitted with Automatic Information System (AIS) transponders, and so these vessels were not accounted for in the quantitative marine risk assessment (Volume 8C, TERMPOL 3.15, Filing IDs: A3S5F4, A3S5F6, and A3S5F8). The recreational vessel survey concluded that current safeguards and proposed future additional safeguards are sufficient to comprehensively mitigate potential effects of TMEP on marine recreational vessels. Recommendations proposed by Trans Mountain have been accepted by the TERMPOL Review Committee that will further enhance the safety of</p>	<p>The response attempts to aggregate Port Moody non-commercial users of the Burrard Inlet as part of a larger group of non-commercial marine users and does not provide specific impacts towards Port Moody businesses as requested.</p> <p>Additionally, while the response provided reference to a larger document with regards to the mitigation and avoidance measures, it provided no specific page numbers that would ensure Intervenors can obtain the exact information sought.</p>	<p>Trans Mountain’s effects assessment is conducted at a regional scale, and is not specific to an individual community such as the City of Port Moody. This approach to assessing potential effects and evaluating their significance is required for federal level decision making. Trans Mountain does not contemplate completing a specific assessment for Port Moody, its businesses or marine users, or for other communities or groups along the pipeline and marine shipping corridors.</p> <p>Mitigation measures related to the construction and operation of the Westridge Marine Terminal are listed in Table 7.6.4-2 of Volume 5B (Filing ID A3S1S9, PDF pages 15-17). Key measures are re-iterated in detail in the response to 1.1d above.</p> <p>Mitigation measures, including those beyond the authority of Trans Mountain, related to the movement of Project-related marine vessels to and from Westridge Marine Terminal are noted in Table 4.3.11.2 of Volume 8A (Filing ID A3S4Y3, PDF pages 156-161), as well as Section 14 of Volume 8C, TERMPOL 3.15 (Filing ID A3S5F6, PDF pages 64-65). Key mitigation measures are re-iterated in detail in the response to Motion 1.1d above.</p>	Please confirm the City’s understanding that a local impact assessment for Port Moody has not be undertaken and that no specific local mitigation measures to address local impacts have been developed or will be developed.

		all mariners in the central harbour (refer to Response to NEB IR regarding TERMPOL report and Outstanding Filings, Filing ID A4G3U5). Therefore, additional safeguards beyond those already considered in Volume 8A, Section 4.3.11.4.2 (Filing ID A3S4Y1) and in Volume 8C, TERMPOL 3.15 need not be contemplated.			
1.8(d)	Please provide a rationale if any of the above cannot be provided in detail.	Refer to the response to City of Port Moody IR No. 2.1.08a.	Please see City's comments on 1.8(a) and (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
1.9 (a)	Please provide more information on the marine movement patterns that would need to be changed and for which users in Port Moody during the construction phase of the TMEP. Also, please provide more information with regard the expected delays for marine users as stated, as well as how Trans Mountain intends to mitigate any economic losses to local marine commercial users.	<p>Information regarding the potential effects of the construction phase of the proposed Trans Mountain Expansion Project (TMEP, or Project) on the movement patterns of marine users, including marine users from Port Moody, is considered to be sufficiently addressed in the Application (please refer to Section 7.6.4, Table 7.6.4-2 of Volume 5B, Filing ID A3S1S9 and Section 4.3.11.4.2, Table 4.3.11.2 of Volume 8A, Filing ID A3S4Y3), and City of Port Moody IR No. 1.1.2d (Filing ID A3X5Z8). Please refer to response to City of Port Moody IR No. 2.1.08a for the rationale for reaching the conclusion that the identified potential impacts have been sufficiently assessed.</p> <p>With respect to mitigation for any potential economic losses, please refer to the response to City of Port Moody IR No. 2.1.01d.</p> <p>The information and assessment provided is considered to be an appropriate level of detail to inform the development of Project-specific mitigation measures and to assist in federal-level decision-making.</p>	The response provided, which references the general statements provided in those references mentioned, is not adequate in responding to the City's request. The City understands that Trans Mountain has provided a general assessment regarding potential impacts on movement patterns for marine users; however, the City request was more specific, seeking information as to what such statements practically mean in reality and how Port Moody stakeholders are being impacted.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
1.9 (b)	Please provide more information on the disruptions to marine access and use patterns for Port Moody marine users during operation of the TMEP. Please also provide information about which marine users this reference refers, as well as how Trans Mountain intends to mitigate any economic losses or reductions to local marine commercial users.	Refer to responses to City of Port Moody IR No. 2.1.01d and 2.1.08a.	See City's comments on 1.9(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
1.9 (c)	Please provide rationale if any of the above cannot be provided in detail.	Refer to the response to a) above.	See City's comments on 1.9(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided	See City's comments on 1.9(a)

				sufficient information and detail for the Board in its consideration of the application and no further response is required.	
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IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
2.1 (a)	The City of Port Moody considers Trans Mountain responses to the City’s Information Request 1 to be inadequate. What engagement has Trans Mountain done and/or plans to do to address this City concern?	<p>Trans Mountain believes that the NEB Filing ID referenced above in iii is incorrect and should instead be A3Y8D5.</p> <p>This response addresses the requests raised in City of Port Moody IR No. 2.2.1a to 2.2.1e.</p> <p>As stated in a letter to Mayor and Council dated January 16, 2015 (refer to City of Port Moody IR No. 2.2.1a - Attachment 1), Trans Mountain appreciates it can be difficult to have specific concerns addressed through the formal Information Request process. Trans Mountain remains committed to engaging with Port Moody going forward and will invite the City and its constituents to future engagement opportunities as described above.</p> <p>As a marine community proximate to both Westridge Marine Terminal and Burnaby Storage Terminal, Trans Mountain considers Port Moody an important and engaged stakeholder in the all phases of the Project’s development, and should the Project be approved, through construction and into operations. It is recognized that Trans Mountain also has a relationship with Port Moody through its existing pipeline infrastructure that is not part of the proposed Trans Mountain Expansion Project. As outlined in Trans Mountain’s response to City of Port Moody IR No. 1.2.1 (Filing ID A3X5Z8) Trans Mountain defines engagement as providing stakeholders with an opportunity to provide feedback on a proposed Project, and throughout the life of the system. Trans Mountain commits to incorporating feedback from stakeholders into its plans to the extent practical. Trans Mountain is committed to its corporate principle of establishing and maintaining positive long-term relationships with stakeholders in the communities in which Trans Mountain operates. To support this Trans Mountain stands by the extensive communications and engagement program in place that is aimed at building and strengthening relationships with stakeholders, Aboriginal groups,</p>	<p>The response provided general statements about Trans Mountain’s “beliefs” and “commitments” on engagement, as well as one sentence with regards to a letter to the City and past consultation activities with the City. However, the response fails to address the City’s specific concerns on the inadequacy of the City’s IR No.1 requests and the specific engagement process to resolve the City’s concerns.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<p>governments and the public along the Project corridor.</p> <p>Trans Mountain has been operating for over 60 years and has recognized through the Project development and regulatory process that many communities in the Lower Mainland are seeking additional information about the Company and its operations, so they can better understand the potential impacts and opportunities the Project may present to constituents.</p> <p>Trans Mountain believes that collaborative interactions are the result of its efforts to building trust and lasting relationships. Trans Mountain believes it must “walk the talk” and that means having face-to-face interactions and being open, honest and transparent with people in the communities in which it operates. Trans Mountain pays attention to what is being said through careful listening, offering suggestions and seeking inputs; and incorporating those inputs where practical.</p> <p>Trans Mountain has and continues to strive to provide its neighbours with clear and factual information, and by living up to the commitments made to a community, whether explicit or implicit as a trusted operator.</p> <p>History of Engagement and Next Steps</p> <p>Engagement regarding the Project began in 2012 and Trans Mountain continues to exchange information and receive feedback from the City of Port Moody and the community at-large as Project plans are further refined.</p> <p>Topics of interest identified by the City of Port Moody and its constituents (list is not exhaustive):</p> <ul style="list-style-type: none">• Westridge Marine Terminal construction and operations• Fisheries offsets and other local environmental enhancements as compensation for Marine Terminal construction• Emergency preparedness and response (marine and terrestrial)			
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		<ul style="list-style-type: none">• Marine safety• Socio-economic effects of marine oil spills• Local community investment• Local jobs and procurement opportunities• Stakeholder engagement <p>Many of these issues have been raised in face-to-face meetings and forums including, but not limited to:</p> <ul style="list-style-type: none">• July 9, 2012 - Trans Mountain met with City of Port Moody representatives to introduce the proposed Project. Based on feedback, Trans Mountain determined that a regional approach to its initial public information sessions would be the best approach in the Tri-Cities, including the Village of Anmore and Village of Belcarra (future references to 'Tri-Cities' for simplicity in this response).• November 6, 2012 in the Village of Belcarra and November 20, 2012 in the City of Coquitlam - Trans Mountain held two introductory public information sessions in the Tri-Cities area. Feedback was used to design topic specific Community Conversations and online digital engagement. Refer to Sections 1.5.3 and 1.5.5 of Volume 3A (Filing IDs A3S0R3 and A3S0R4).• September 25, 2013 – Burnaby and Westridge Terminals Information Session in Coquitlam on September 25, 2013. The City was notified about this session, the local community newspapers were included in advertising and promotion, and constituents from the community attended. The Terminals Information Sessions were intended to share new information such as technical specifications, safety, and configuration and to seek feedback. Refer to Section 1.5.3.36 of Volume 3A (Filing ID A3S0R4).• December 6, 2013 Regional Emergency Preparedness Committee, Emergency Management Stakeholder Workshop. Refer to response to City of Port Moody IR No. 2.3.28b.• June 25, 2014, in response to a request from the City, Trans Mountain participated in a public panel organized by the City			
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	<p>of Port Moody, for Port Moody residents. Refer to Section 1.14.6 of Consultation Update No. 3 (Part 1, Public Consultation was filed with the NEB on February 3, 2015. Refer to NEB IR No. 3.005a - Attachment 1.) (Filing ID A4H1W3). Key issues and concerns were used to inform future engagement opportunities such as public communications, telephone and twitter town hall topics and engagement sessions for spring 2015.</p> <p>July 14, 2014 – Westridge Marine Terminal Fisheries Offset Workshop. Refer to response to City of Port Moody IR No. 2.2.2f below.</p> <ul style="list-style-type: none">• September 10, 2014 – Meeting with Port Moody staff to introduce first responders to TMEP Lead, Emergency Management Programs, to ensure staff had pertinent information about the proposed Project and introduce the concept of Emergency Management Stakeholder Workshop. City staff indicated support for a combined Tri-Cities Emergency Management workshop scenario. The scenario will be planned in Q2 2015. Refer to Section 1.7 of Consultation Update No. 3 (Part 1, Public Consultation was filed with the NEB on February 3, 2015. Refer to NEB IR No. 3.005a - Attachment 1.) (Filing ID A4H1W2). <p>For additional information on issues raised and stakeholder engagement activities undertaken by the Project, please see the following documents:</p> <ul style="list-style-type: none">• Volume 3A (Filing ID A55987)• Consultation Update No. 1 & Errata (Filing ID A59343)• Consultation Update No. 2 (Filing IDs A62087 and A62088)• Project and Technical Update No. 4 (Filing IDs A64687 and A64686)• Consultation Update No. 3 – Part 1, Public Consultation, as attached to NEB IR No. 3.005a (Filing IDs A4H1W2, A4H1W3, A4H1W4, A4H1W5, A4H1W6 and A4H1W7). <p>Despite the regulatory review underway, Trans Mountain has</p>			
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		<p>committed from the beginning of the process that engagement will be ongoing so that local governments, Aboriginal Groups and other stakeholders can continue to receive information and provide feedback as plans develop.</p> <p>Trans Mountain’s ongoing engagement activities are described in Section 1.3 of Consultation Update No. 3 (Filing ID A4H1W2). Engagement and communications activities will continue as the Project proceeds through the NEB regulatory process and, if successful, the construction and in-service phases of the Project. Across the project, Trans Mountain will continue to share with stakeholders the results of any new studies or work being completed, communicate any changes or updates to Project plans, share information with stakeholders on, including but not limited to, the regulatory process, employment and procurement opportunities, community readiness, community benefits; and engage on, including but not limited to, construction effects, mitigation measures, offsets and potential community benefits.</p> <p>Engagement and communications activities will continue to be undertaken through a number of initiatives, including but not limited to open houses, workshops, one-on-one meetings, presentations, website, online feedback forms, printed materials, and digital media including social media. Engagement activities currently planned for spring 2015 include:</p> <p>Engagement on Emergency Management (Q2 2015) – Part 2 Emergency Management Stakeholder Workshops will be completed with remaining communities not covered in 2014, along with follow-up meetings with municipalities and regional districts regarding emergency management as needed throughout 2015.</p> <p>Reclamation and Environmental Remediation Workshops (Q3 2015) – A series of workshops will be conducted with subject matter experts, regulators, local stewardship and interest groups to seek input into reclamation and environmental mitigation plans for municipal and regional</p>			
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		<p>parks, fisheries and areas of local or regional environmental interest.</p> <p>Public Information Sessions (Q3 2015) – Public information sessions will be conducted in pipeline route communities to share information and seek input on construction planning, reclamation and remediation, workforce hosting, job and procurement opportunities and economic opportunities from workforce hosting.</p> <p>Employment and Procurement Information Sessions (Q3 2015) – As outlined in the Socio-Economic Management Plan (SEMP) contained in Appendix C, Volume 6B of the Application (Filing ID A3S2S3) Information Sessions will be provided for targeted audiences on employment, procurement and economic opportunities associated with the Project.</p> <p>Municipal and Regional Government Engagement (Ongoing) – Continue to offer meetings to municipal and regional governments to provide updated Project information and to seek input into Project design and plans. These sessions will include briefings for newly elected municipal government officials in BC as requested.</p> <p>Marine Engagement (Ongoing) – Continue to engage with marine interests including commercial fishers and shipping interests to help inform them of potential effects of increased marine traffic associated with the Project as well as the impact of potential Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) Review Committee recommendations (Filing ID A4F8Z4).</p> <p>Also refer to Section 1.5 of Volume 3A (Filing ID A3S0R2), Consultation Update No. 1 & Errata (Filing ID A3Y1G4), Section 1.5.1 of Consultation Update No. 2 (Filing ID A3Z8J2), and Consultation Update No. 1 & Errata (Filing ID A59343).</p>			
2.1 (b)	Please describe how Trans Mountain defines “collaborative” interactions with communities.	Refer to the response to City of Port Moody IR No. 2.2.1a.	The response did not define what Trans Mountain considers to be “collaborative” interactions with communities as requested.	Trans Mountain defines collaborative interactions as interactions where Trans Mountain and affected landowners discuss issues and proposed solutions.	No further information is required.

				<p>Trans Mountain’s engagement is ongoing. Trans Mountain is committed to open, respectful, transparent and collaborative interactions with landowners, residents and stakeholders. Trans Mountain has been engaging with communities along the pipeline and marine corridor since 2012 and the Project team will continue to engage, share updated project information and address concerns about the proposed Trans Mountain Expansion Project as they arise.</p> <p>Trans Mountain is committed to its corporate principle of establishing and maintaining positive long-term relationships with stakeholders in the communities in which Trans Mountain operates and has developed and executed an extensive communications and engagement program aimed at building and strengthening relationships with stakeholders, Aboriginal groups, governments and the public along the Project corridor.</p> <p>Throughout its over 60 year operating history Trans Mountain has worked hard towards understanding the social and cultural fabric of the communities we touch. It is about building and maintaining trust within these communities. Over the course of time this approach has served the company well in working with communities in a sincere and honest manner. Trans Mountain has and continues to strive to provide its neighbours with true and clear (factual) information and by living up to commitments made to a community, whether explicit or implicit as a trusted</p>	
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				<p>operator.</p> <p>Building trust and relationships requires one to “walk the talk” and that means, having face to face interactions and being open, honest and transparent with people in the communities in which we operate. It also means personally taking actual effective local action, face-to-face with those impacted by our decisions. As with any project there will be issues and concerns but it’s imperative to work towards finding the high ground and trying to do our best to reconcile differences. We all want the same thing for our planet and our society – the question is how you get from here to there. Social license is not something you apply for. It’s something you apply yourself towards - always.</p> <p>Over the last three years the team at Trans Mountain has spent countless hours in dialogue with Aboriginal communities, stakeholders and landowners through numerous communications channels. It pays attention to what is being said and to dealing with the concerns. Trans Mountain talks with all those who have concerns, carefully listening, suggesting and seeking inputs.</p> <p>At the end of the day what a project proponent strives to accomplish is a broad public understanding and awareness of the issues and the recognition that there are balancing acts at play between risk and benefit. Furthermore, Trans Mountain believes that it is the National Energy Board’s responsibility to make its determination</p>	
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				on the basis of “public interest”. The term “public interest” is defined in the NEB’s strategic plan as follows: “The public interest is inclusive of all Canadians and refers to a balance of economic, environmental and social considerations that changes as society’s values and preferences evolve over time.” In this way, Trans Mountain believes that the NEB’s evaluation of the merits of the proposed Project will take the public attitudes towards into account when making its final determination.	
2.1 (c)	Please provide evidence to demonstrate that the results of collaborative engagement have directly influenced the decision-making process.	Refer to the response to City of Port Moody IR No. 2.2.1a.	The response provided in 2.1(a) gave information with regards to consultation activities but did not specifically demonstrate how the results of collaborative engagements have directly influenced the decision-making process or the Application.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required. The requested information is overly broad in scope. The IR process is designed to allow Intervenors to probe and ask questions about evidence that has been filed. The IR process is not meant to be an opportunity to engage in what the Board described in Ruling No. 33 as a “fishing expedition” that could unfairly burden the applicant.	The request is not overly broad in scope as stated in Trans Mountain’s response. The City expects that for any “collaborative engagement”, the specific consultation with the community would be documented and information provided to demonstrate how comments and input are addressed within Trans Mountain’s decision-making on various aspects of the proposed Project. Trans Mountain response has not provided this information. The City requires a full and adequate response to its information request.
2.1 (d)	Please provide an updated summary of all present and future planned consultation meetings with the Port Moody community and City.	Refer to the response to City of Port Moody IR No. 2.2.1a.	The response did not specify which consultation meetings will be undertaken with the Port Moody community/City.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
2.1 (e)	Please provide a rationale if any of the above cannot be provided.	Refer to the response to City of Port Moody IR No. 2.2.1a.	Please see City’s comments 2.1(a) to (d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response

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IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
2.2 (a)	Please provide an update on the status of the proposed Marine Fisheries Habitat Offsetting Plan for the Burnaby Westridge Terminal expansion portion of the proposed Project. Please include the steps and dates of review and consultation process related to the offsetting plan.	<p>An updated version of the <i>Preliminary Marine Fish Habitat Offsetting Plan</i> was submitted to the National Energy Board (NEB) on December 1, 2014, as part of Technical Update No. 4 (Stantec Consulting Ltd. 2014; Filing ID A4F5C5). This revised plan provides a self-assessment of expected serious harm to fish that are part of, or support, commercial, recreational or Aboriginal (CRA) fisheries, as defined in the 2013 <i>Fisheries Protection Policy Statement</i> (Fisheries and Oceans Canada [DFO] 2013). This self-assessment is intended to assist the NEB and DFO in determining whether the Project is likely to cause serious harm to fish. Under the memorandum of understanding between the NEB and DFO dated December 16, 2013, the NEB is responsible for assessing potential impacts to fish and fish habitat from proposed NEB regulated pipelines. If the NEB determines that a <i>Fisheries Act</i> authorization is likely to be required for serious harm to fish as a result of construction of the Westridge Marine Terminal, the NEB will refer Trans Mountain to DFO to obtain the <i>Fisheries Act</i> authorization prior to the start of Terminal construction. The timeline for the NEB’s determination on potential serious harm and referral to DFO is unknown; therefore, until this serious harm determination is made, Trans Mountain will not move forward with further development of the offsetting plan.</p> <p>If the NEB determines that a <i>Fisheries Act</i> authorization is likely to be required for serious harm to fish, Trans Mountain will consult with Aboriginal groups and other interested parties on any further developments to what is proposed in the preliminary offsetting plan. The timeline for</p>	<p>Based on the response provided, the City understands that the National Energy Board is the agency to make the “determination on potential serious harm” and will “refer to DFO” its determination when complete, and that the date and timeline for such determination is unknown to Trans Mountain.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>	Yes, Trans Mountain understands that the National Energy Board (NEB) is responsible for determining whether the Project is likely to result in serious harm to fish that are part of, or support, commercial, recreational or Aboriginal (CRA) fisheries. Further, Trans Mountain understands that if the NEB determines that serious harm to fish is likely to occur, the NEB will refer Trans Mountain to Fisheries and Oceans Canada (DFO) to obtain a <i>Fisheries Act</i> authorization prior to Project construction. The date and timeline for the NEB’s determination on serious harm to fish are unknown to Trans Mountain.	No further information is required.

		<p>this consultation is contingent upon the NEB’s decision regarding serious harm to fish; however, as per Figure 4.2.6 – Updated Terminals Conceptual Construction Schedule found in Part 9 of Technical Update No. 4 filed with the NEB on December 1, 2014 (Filing ID A4F5C3), Trans Mountain is planning for construction of the Marine Terminal to begin in mid-2016 so consultation and an offset plan should be in place before that time. Trans Mountain will also consult with Port Metro Vancouver (PMV) on any further developments to the preliminary offsetting plan. Review and approval of the offsetting plan by PMV will be required before Trans Mountain submits an application to DFO for a <i>Fisheries Act</i> authorization.</p> <p>Trans Mountain will continue to engage, share updated Project information and address concerns about the proposed Trans Mountain Expansion Project as they arise. Despite the uncertain timing of continued engagement for marine fisheries offsets, Trans Mountain is planning to continue engagement with local communities, Aboriginal groups and other stakeholders about the potential environmental effects of the Westridge Marine Terminal and how those effects can be mitigated to refine the Environmental Protection Plan for Terminal construction. Engagement with local communities on this topic is expected to continue in Q2 2015.</p>			
2.2 (b)	Please describe how Trans Mountain has and/or will incorporate the comments from the consultation process into the aforementioned plan.	Trans Mountain values the feedback received from participants who attended the two offsetting workshops held on July 14 and August 1, 2014. Comments received during these workshops are summarized in Section 7 of the <i>Preliminary Marine Fish Habitat Offsetting Plan</i> (Stantec Consulting Ltd. 2014; Filing ID A4F5C5). Any comments received from future consultation activities related to marine fish habitat offsetting	The response does not include evidence on how the comments from the consultation process have been incorporated into the aforementioned plan as requested. An adequate response should include, but are not limited to, the provision of each specific comment provided and how the comment has been addressed and/or	As stated in the original response to this IR, comments received during the offsetting workshops held on July 14 and August 1, 2014, have been incorporated into the <i>Preliminary Marine Fish Habitat Offsetting Plan</i> (Stantec Consulting Ltd. 2014; Filing ID A4F5C5). Meeting minutes from these two offsetting workshops were provided as Attachments 1 and 2 to the	Trans Mountain’s response to the City’s Motion does not provide the information requested. The City has requested specific demonstration of how the comments that were provided in the consultation process to-date have been incorporated into the Preliminary Plan. The response to the City’s Motion simply asserts that the comments have been incorporated but

		will also be summarized in the plan. Trans Mountain will consider all comments received and will determine whether changes to the plan are warranted. While the preferred approach to offsetting involves the creation of a subtidal rock reef within the Eastern Burrard Inlet Rockfish Conservation Area, Trans Mountain is open to ideas for other offsetting measures. Alternative offsetting measures brought forward during consultation will be evaluated for inclusion in the final offsetting plan. Factors that will be considered include: ecological benefits of the offsetting measure; alignment with Fisheries and Oceans Canada's (DFO's) policy and approach to offsetting; construction feasibility; likelihood of success; and cost. The final offsetting measure(s) will require approval by Port Metro Vancouver (PMV) and DFO.	incorporated.	response to City of Port Moody IR No. 2.2.2c (Filing IDs A4H8G9 and A4H8H0). Please refer to Section 7.0 in the <i>Preliminary Marine Fish Habitat Offsetting Plan</i> for a discussion on the outcomes of the two offsetting workshops. Any comments received from future consultation activities related to marine fish habitat offsetting will also be incorporated into the plan.	does not address the City's information request on "how". An adequate response should include, but not limited to, the provision of each specific comment provided and how the comment has been addressed and/or incorporated. The City reiterates that it requires a full and adequate response to its information requests.
2.2 (d)	Please provide a table indicating the date and stakeholders who will be included in consultation meetings relating to the Marine Fisheries Habitat Offsetting Plan.	<p>Trans Mountain is committed to respectful, transparent and collaborative interactions with communities. Trans Mountain has been engaging with communities along the pipeline and marine corridor since 2012 and the Project team will continue to engage, share updated project information and address concerns about the proposed Trans Mountain Expansion Project as they arise.</p> <p>As discussed in the response to City of Port Moody IR No. 2.2.2a, the timeline for further consultation on the <i>Preliminary Marine Fish Habitat Offsetting Plan</i> is unknown. Until the National Energy Board (NEB) makes a determination on whether the Project is likely to result in serious harm to fish, Trans Mountain will not move forward with further development of the offsetting plan. If the NEB determines that a <i>Fisheries Act</i> authorization is likely to be required for serious harm to fish, Trans Mountain will consult with Aboriginal groups and other interested parties on further developments to</p>	<p>The request pertains to specific engagement events planned in relation to the Marine Fisheries Habitat Offsetting Plan. As mentioned in the response, Trans Mountain has plans to further engage in Q2 of 2015, however is not able to provide specific dates as requested.</p> <p>If this information is unavailable at the moment, the City requests that Trans Mountain be direct in its response. Please refer this request back to Trans Mountain for clarity on the engagement activities.</p>	<p>Trans Mountain does not currently have plans for further consultation on the <i>Preliminary Marine Fish Habitat Offsetting Plan</i>. If the NEB determines that a <i>Fisheries Act</i> authorization is likely to be required for serious harm to fish, Trans Mountain will consult with Aboriginal groups and other interested parties on further developments to the offsetting plan that should be considered. Because the timeline for the NEB's determination on serious harm to fish is unknown, Trans Mountain cannot provide specific dates for further consultation on the <i>Preliminary Marine Fish Habitat Offsetting Plan</i>.</p> <p>As stated in the original response to this IR, Trans Mountain is planning to continue engagement with Aboriginal groups, local communities and other stakeholders about the potential environmental effects of the Westridge Marine Terminal and how those effects can be mitigated to refine the</p>	No further information is required.

		<p>the offsetting plan that should be considered. Parties who will be consulted on further developments to the offsetting plan will be the same as those invited to the workshops in July and August 2014. These include, but are not limited to, the following:</p> <ul style="list-style-type: none">• Pacific Salmon Foundation• Vancouver Aquarium• Pacific Wildlife Foundation• Habitat Conservation Trust*• Wild Birds Trust*• Elaine Golds (SFU)*• Invasive Species Council of BC*• Marine Mammal Research Unit (UBC)• District of North Vancouver• City of Port Moody• District of Belcarra• City of Burnaby*• Metro Vancouver (Regional District)*• Shell Canada*•Chevron Canada*• Squamish First Nation**• Tsleil-Waututh First Nation**• Musqueam First Nation**• Kwikwetlem First Nation• Cowichan Tribes• Sto:Lo Collective Technical Working Group• Cowichan Nation Alliance• Leq’a:mel First Nation <p>* invited but did not attend July 14, 2014 workshop ** invited but did not attend August 1, 2014 workshop</p> <p>Trans Mountain will also consult with Port Metro Vancouver (PMV) on any further developments to the preliminary offsetting plan. Review and approval of the offsetting plan by PMV will be required before Trans Mountain submits an</p>		<p>Environmental Protection Plan for Terminal construction. Trans Mountain is planning to hold a workshop to discuss this topic in April 2015.</p> <p>Invitations for this workshop will be sent as soon as the date is determined.</p>	
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		<p>application to DFO for a <i>Fisheries Act</i> authorization.</p> <p>Trans Mountain will continue to engage, share updated Project information and address concerns about the proposed Trans Mountain Expansion Project as they arise. Despite the uncertain timing of continued engagement for marine fisheries offsets, Trans Mountain is planning to continue engagement with local communities, Aboriginal groups and other stakeholders about the potential environmental effects of the Westridge Marine Terminal and how those effects can be mitigated to refine the Environmental Protection Plan for Terminal construction. Engagement with local communities on this topic is expected to continue in Q2 2015.</p>			
2.2 (e)	Please provide details on how a net benefit will be achieved through the proposed Marine Fish Habitat Offsetting Plan.	<p>Please refer to Section 5.2 of the <i>Preliminary Marine Fish Habitat Offsetting Plan</i> for a comprehensive discussion on the ecological benefits of the proposed subtidal reef (Stantec Consulting Ltd. 2014; Filing ID A4F5C5). As discussed throughout the plan, the subtidal reef has been designed to ensure that any serious harm to fish is fully offset and that the ongoing productivity of commercial, recreational and Aboriginal (CRA) fisheries is maintained or improved.</p>	<p>The City understands that the proposed Preliminary Plan will not necessarily achieve a “net benefit”, based on the response.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>	<p>The subtidal rock reef proposed in the <i>Preliminary Marine Fish Habitat Offsetting Plan</i> has been designed to benefit a number of fish and invertebrate species that are part of, or support, commercial, recreational or Aboriginal (CRA) fisheries. Construction of the subtidal reef will increase the availability of rocky habitat in Burrard Inlet, which is a limiting habitat type in the area. The subtidal reef will be colonized by a diverse assemblage of algae and sessile invertebrates, leading to an increase in primary productivity (through increased algal biomass) and increased prey abundance. Mobile invertebrates and fishes will colonize the reef, benefitting from the cover provided by the complex reef structure and the invertebrate and fish prey that the reef supports. Overall, the subtidal reef is expected to result in a net benefit to the marine environment of Burrard Inlet.</p>	<p>The additional response provided contains general statements of how the Preliminary Marine Fish Habitat Offsetting Plan is “expected” to perform, but does not provide demonstration to support the conclusion that a net benefit will be achieved. .</p> <p>Based on the responses provided, the City understands that no assessment is available that demonstrates that the proposed Preliminary Plan will achieve a net benefit to marine fish habitats in the Burrard Inlet.</p> <p>Please confirm that the City’s understand, as stated above, is correct.</p>
2.2	If there is no commitment to	<i>Not directly referenced.</i>	There is no commitment by Trans	Trans Mountain will not commit to	No further information is required.

(f)(i)	establishing a regional program, please provide rationale for why not.		Mountain. The City requests an appropriate response on this.	establishing a regional marine ecosystem management program (completely or in part). As stated in the response provided: “Trans Mountain is interested in participating in initiatives that would improve the recovery of Burrard Inlet marine ecosystems; however , the Project remains focused on mitigating impacts from project construction and terminal operations and will not commit to convening a regional ecosystem management program that could instead be accountable for addressing the environmental impacts of all marine based operators (industry, commercial shipping, transportation, tourism, recreational) and local communities.” The scope of the terminal’s development has a localized effect whereby Trans Mountain will seek to offset direct impacts and will consider future contributions toward the regional restoration efforts of others such as described in the original response to this IR as well as City of Port Moody IR No. 2.5.2a.	
2.2 (g)	Please provide rationale if the above cannot be provided.	<i>Not directly referenced.</i>	Please see City’s comments on 2.2 (a) to (f)(i).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comments for 2.2 (b) and 2.2 (g).

IR	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.1 (a)	<p>Please provide the number of dedicated response vessels and response capacity, as well as the number of “tug of opportunities” and their response capacities, specifying:</p> <ul style="list-style-type: none">• The vessel type;• The equipment onboard;• The vessel's ability to tow all tankers related to the TMEP;• The vessel's ability to recover oil; and,• The number of trained crew member on oil spills and large tanker safe towing.	<p>Typically tugs are typically not considered as oil spill response vessels and have not been considered part of direct oil spill response resources in the proposed enhanced oil spill response regime. Should it be necessary during a response, tugs may be used to assist in areas requiring tug support and expertise, or as a means of water borne transportation. Trans Mountain is unable to provide information on whether the tug is capable of undertaking oil spill response and whether staff onboard are trained in oil spill response. The proposed enhanced oil spill response regime described in the Application does not consider tugs as active participants in the oil spill response regime.</p> <p>Section 5.5.2, Table 5.5.3 of Volume 8A of the Application (Filing ID A3S4Y6) contains a comparison of existing and enhanced planning standards for marine oil spill response proposed to accommodate the Project. This table is based on a report prepared by WCMRC and included as Volume 8C TR 8C 12 –S12 (Filing ID A3S5I9). The WCMRC report contains descriptions of equipment proposed to be deployed to satisfy the enhanced planning standards of Table 5.5.3. Response to NEB IR No. 1.64a (Filing ID A3W9H8) describes the process being pursued to implement these enhancements.</p> <p>Trans Mountain understands the term “tugs of opportunity” to refer to tugs</p>	<p>The response provided does not address the request at hand. Specifically, the City requests a summarized table of <u>all response vessels and response capacities</u>, which has not yet been provided.</p>	<p>As noted in the response to City of Port Moody 2.3.01a (Filing ID A4H8G7), tugs are not typically considered oil spill response vessels, although there could exist situations where they become Vessels of Opportunity under charter to WCMRC. A detailed discussion of WCMRC’s proposed enhanced response regime to support the Project can be found in Application Volume 8C, TERMPOL Reports, TR 8C-12 S12 – <i>Review of Trans Mountain Expansion Project Future Oil Spill Response Approach Plan Recommendation on Bases and Equipment</i> (Filing ID A3S5I9). This document includes a discussion of all proposed response vessels and their capacities.</p>	<p>The response provided does not address the City’s information request. Specifically, as detailed in the City’s Motion, the City requests a summarized table of <u>all response vessels and response capacities</u>. This information has not been provided.</p> <p>The additional response provides a link that does not work. In addition, the response refers to a document that discusses “recommendations” on bases and equipment (based on the title), rather than the actual response vessels, equipments and capacities available.</p> <p>The City reiterates that it requires a full and adequate response, rather than a reference to another document that does not fulfill the request directly.</p>

		<p>capable of providing emergency towing assistance or similar services to in an emergency. For a list of tugs available to the region, please refer to Reference (iii), Tables 5.2, 5.3 and 5.4 (Filing ID A3S5G0). The tables include the capabilities of the tugs, including power, propulsion type, and rescue tow capability. Depending on the situation, 32 Canadian registered tugs in BC waters and 55 US registered tugs in North Puget Sound or Juan de Fuca Strait are above 150 GT, which is considered to be a reasonable indicator of tug size capable of performing ship escorting. These may all be considered tugs of opportunity, distributed between Washington State and Alaska.</p> <p>Volume 8A Section 5.3.2.1 (Filing ID A3S4Y4) describes that Trans Mountain will require an increase in the existing level of tug escort for laden Project-tankers during their entire passage from the Westridge Marine Terminal to the Pacific Ocean, thereby avoiding reliance on tugs of opportunity for Project tankers. This concept was subsequently endorsed by the Termpol Review committee in their report (Termpol 2014) and its implementation through use of the Trans Mountain vessel screening process is described in response to NEB IR No. 1.54 (Filing ID A3W9H8).</p> <p>Trans Mountain proposed an enhanced escort tug regime that would expand the use of escort tugs for laden tankers for the entire shipping route, which has been supported by the TRC. As such, a discussion on tugs of opportunity is not relevant to one or more of the issues</p>			
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		identified in the National Energy Board's List of Issues for the Trans Mountain Expansion Project. The responses below should be read with that in mind.			
3.1 (a)(i)	Please comment and compare, with the recommendations of reference (ii), on the amount of dedicated and equipped vessels, including "tugs of opportunity" numbers and their response capacities.	<p>Please note that Trans Mountain has completed its own risk assessment for the area relevant to the project and presented the results to the NEB and TERMPOL (TERMPOL 3.15-General Risk Analysis and Intended Methods for Reducing Risks, Volume 8C, Filing ID A3S5F4.</p> <p>Results from Ref (ii) are not relevant to the purpose for the study area because Trans Mountain has proposed expanding dedicated tug escort for laden project tankers and not relying on rescue tugs. This information is thus not relevant to one or more of the issues identified in the National Energy Board's List of Issues for the Trans Mountain Expansion Project.</p>	Trans Mountain states that the information is "not relevant to one or more of the issues identified in the [NEB]'s List of Issues for Trans Mountain Expansion Project." However, the request specifically discusses dedicated oil spill response equipment and vessel, and requests a comparison to best practices available. Hence, the request is fundamentally related to the List of Issues identified, and the City requests a more adequate and complete answer to this request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.1 (a)(ii)	Please provide evidence demonstrating adequate collaboration on emergency response between WCMRC, other response agencies that may operate along the shipping route of the proposed Project, and the owners of "tugs of opportunity" that may be activated during a response.	Use of tugs of opportunity for oil spill response is not relevant to the proposed enhanced oil spill response regime and is therefore not relevant to one or more of the issues identified in the National Energy Board's List of Issues for the Trans Mountain Expansion Project.	The specific request is not confined to "tugs of opportunity" but also includes all other response agencies that may operate along the shipping route of the proposed Project and is thus fundamentally related to the List of Issues of the Project. Additionally, Trans Mountain's Application itself identifies Tugs of Opportunity as one of the emergency response resource available, and therefore is also fundamentally related to the List of Issues at hand.	In accordance with Board Ruling No. 31 and Ruling No. 50 (Filing IDs A63036 and A65390), the response was full and adequate. Trans Mountain has provided sufficient information to meet the Board's requirements at this stage in the process and no further response to the IR is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.1 (b)	<p>Please provide details of the rescue tugs available, specifying:</p> <ul style="list-style-type: none"> The number of rescue tugs available in the 30 minute, 1 hour, and 2 hour response time range from the Burrard Inlet; 	Refer to response to City of Port Moody IR No. 2.3.01a, particularly in regard to the enhanced tug escorts proposed as a means to ensure immediate tug assistance and avoid reliance on rescue	The request is outside of the scope of the List of Issues identified and Trans Mountain has not provided the information as requested. It is not impossible for an instance to arise that a rescue tug would be needed, however low Trans Mountain may	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate

	<ul style="list-style-type: none"> The towing vessel specifications, compared to the minimum towing vessel specification requirements appropriate to the expected shipping vessels (e.g., Aframax tankers); The rescue equipments on board, specifically commenting on their ability to respond to potential emergencies related to oil transport vessels associated with the proposed Project. 	<p>tugs for Project tankers.</p> <p>A rescue tug is based at Neah Bay near the western entrance to the Juan de Fuca Strait. Westridge tankers within Burrard Inlet are always accompanied by tethered tugs. Trans Mountain has proposed an enhanced escort tug regime that would expand the use of escort tugs for laden tankers for the entire shipping route, which has been supported by the TERMPOL Review Committee. As such Trans Mountain believes that the further details requested are not relevant to one or more of the issues identified in the National Energy Board's List of Issues for the Trans Mountain Expansion Project.</p>	believe the probability to be (e.g., in the case of when both the tanker and the escort tug are both in need.).		response to the City's IR No.2 requests.
3.1 (b)(i)	Please specify the preferred homeport for a rescue tug to enable access to the Burrard Inlet and the Strait of Georgia.	Not directly referenced.	No response was provided for this request. The City requires adequate and complete response.	Trans Mountain has not investigated rescue tug homeports. Laden Project tankers would be escorted by tugs throughout their passage in Canadian territorial waters. Since the tugs would be immediately available to assist the tanker no assessment of the preferred homeports is necessary.	<p>Based on the response provided, the City understands that Trans Mountain treats the escort tug as the rescue tug, and does not have information on homeport for a dedicated rescue tug that can access the Burrard Inlet and the Strait of Georgia.</p> <p>Please confirm that the City's understanding, as stated above, is correct.</p>
3.1 (c)	Please provide the current performance measure standard for emergency response resources of WCMRC and/or Trans Mountain, as well as other potential agencies that may respond to marine accidents/malfunctions (e.g. if Responsible Party decides to employ the service of a response organization other than WCMRC).	<p>Regulations guiding emergency response are considered to be planning standards and not performance standards. The following information applies to emergency response planning standards for Trans Mountain and project-related tankers.</p> <p>Regulations and standards provide the framework for protecting Canada's navigable waters by placing preparedness requirements on ships, oil handling facilities (such as Westridge Marine</p>	<p>Based on the response, the City understands that:</p> <ul style="list-style-type: none"> There are no performance standards for emergency response resources related to the proposed Project; and Trans Mountain and WCMRC are committed to planning standards reflective of the minimum requirements of current regulations. 	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>Terminal) and certified Response Organizations (such as WCMRC) operating in Canadian waters. Transport Canada is the lead federal regulatory agency responsible for the National Marine Oil Spill Preparedness and Response Regime, which began in 1995 and which is a partnership between government and industry. Part 8 of the Canadian Shipping Act (CSA) 2001 and its regulations and standards govern the regime. Canada as an active member of the International Maritime Organization (IMO) has acceded to a number of international conventions that support the regime, such as the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC Convention) - the regime reflects this convention. Transport Canada sets the guidelines and regulatory structure for the preparedness and response to marine oil spills incidents</p> <p>Refer to Section 5.5.2, Table 5.5.3 of Volume 8A of the Application (Filing ID A3S4Y6) for a comparison of the existing response regime to the enhancements proposed by Trans Mountain.</p> <p>With regard to the question of “if Responsible Party decides to employ the service of a response organization other than WCMRC,” based on the CSA 2001, WCMRC is the only certified response organization with caches of equipment available along the B.C. coast. WCMRC also receives responder immunity under the CSA, something that is not available to other non-certified responders unless they are working under WCMRC. By law, each vessel operator is required to have</p>	<p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>		
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		<p>an arrangement with WCMRC with respect to a marine oil spill associated with a project tanker in the navigable waters of British Columbia, whatever the cause of that incident. That said, the responsible party can contract other resources but they would be monitored closely by Canadian Coast Guard (CCG), as the federal monitoring officer. The incident commander, under oversight of the CCG, may utilize other service providers to deal with additional aspects of the incident, for example any towage needs.</p>			
3.1 (e)	<p>Please provide the rationale and evidence demonstrating that the level of local resources is adequate, specifically comparing to the response capacities and demands of various major marine oil spill scenarios, including the 2007 Hebei-Spirit accident, the 1989 Exxon Valdez accident, as well as other major global oil spills.</p>	<p>Based upon the preamble that refers to “tug of opportunity” the information requested is not relevant because escort tugs rather than tugs of opportunity will always be provided. Also Trans Mountain assumes that the focus of the discussion is surrounding a large oil spill in Burrard Inlet. Trans Mountain believes that it has made a diligent effort to ensure that such an event does not occur; for instance, both vessels cited by the Intervenor (the Exxon Valdez and the Hebei Spirit) were events involving single hull tankers, whereas all project tankers are of double hull construction. The combination of existing and additional risk reducing measures proposed in the Application will ensure any project tanker related oil spill event remains a low likelihood event and a large spill within Burrard Inlet is not a viable scenario. Please refer to the response to PMV IR No. 1.8.1 (Filing ID A60839). Trans Mountain also notes from the references in this information request that the Intervenor might not have reviewed Trans Mountain’s proposed</p>	<p>The City’s request is for the applicant to provide evidence demonstrating that the level of local resources is adequate for major marine oil spills by using past examples of oil spill as references. The response did not adequately provided such assessment, but evaded an adequate response regarding the potential demands of major marine oil spill response scenarios.</p> <p>As the proposed Project will increase tanker traffic significantly, and the applicant has the responsibility to provide information related to oil spill response and emergency, the City requests that the applicant to not evade such an analysis and provide evidence that the marine emergency response capacity is capable of responding and recovering major oil spills in the region.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<p>enhanced oil spill response regime for the region that is risk based and which shall be developed and implemented by WCMRC, the Transport Canada certified response organization for the BC coast in Volume 8A, Table 5.5.3 (Filing ID A3S4Y6).</p> <p>As such, it is speculative to discuss the demands of various major marine oil spill response scenarios but worth mentioning that such very infrequent events are generally managed as national emergencies and not left to local resources alone to deal with.</p>			
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IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.2 (a)	Please describe the resource capacity and availability for lightering vessels in the event of a major tanker accident - including availability of dedicated heavy lift helicopter in the region (24/7 response) and dedicated oil storage barge to support the lightering of a damaged vessel and on-water spill recovery.	<p>WCMRC has barge capacity for oil spill response and has plans to expand barge capacity as part of the enhanced oil spill response regime (refer to response to City of Port Moody IR No. 2.3.01a for references). Should additional lightering capacity be required the same can be obtained by engaging additional barges from established tug and barge operators in the region or by chartering another tanker. Given the already steady traffic of tankers in the region and possible increase to tanker activity, with or without the Project, the ability to source another tanker from the market is not expected to be difficult.</p> <p>Commercial helicopters operate in the region and should it become necessary to obtain such services, those may be obtained under commercial terms.</p>	<p>The City requests resource <u>capacity</u> and availability for lightering vessels. The response only provided general information regarding the availability of these resources, and did not provide specific capacity information.</p> <p>The City requires an adequate and complete response to the request.</p>	<p>Typical barges available in the region range in capacity between 4000 m3 to 10,500 m3. For example, according to their website, Island Tug and Barge, a major West Coast barge operator has a fleet of modern barges, which in Trans Mountain’s opinion could be commissioned to lighter from tankers, should it be needed.</p> <p>The first priority after an incident is for the Incident Command System to be set up and then to assess the possible response requirements. In those cases, the top priorities are to ensure safety of all persons and limit the outflow. Only after the situation has stabilized will it be possible for a lightering vessel to approach the tanker in distress. That leaves ample time to source for additional lightering vessels from outside, including chartering smaller tankers, to augment the resources that may be readily available in the region.</p>	<p>Based on the general response provided, the City understands that Trans Mountain does not currently have complete and detailed information on the resource capacity and availability for lightering vessels in the event of a major tanker accident, and expects that this resource can be sourced out and made available at the time of an incident. Additionally, there is no existing agreement to ensure the availability of such resources.</p> <p>Please confirm that the City’s understanding, as stated above, is correct.</p>
3.2 (a)(i)	Please provide details on any heavy-lift helicopter-of-opportunity program to expedite mobilization when needed	<i>Not directly referenced!</i>	No response was provided for this request. The City requires an adequate and complete response to the request.	<p>Trans Mountain is not aware of a heavy-lift helicopter-of-opportunity program. However the Canadian Coast Guard utilises a fleet of helicopters that can be employed to assist in environmental response as well as to carry heavy equipment. More information is available on the CCG website at http://www.ccg-gcc.gc.ca/Fleet/Helicopters, should the intervenor wish to access.</p> <p>In addition, local BC helicopter companies are available for commercial employment of light to medium helicopters suitable for transporting personnel and equipment, including long line operations.</p>	Please see City’s comments on 3.2(a).
3.2	Please describe resource capacity and availability for marine fire	Fire onboard a tanker of the type that will be used by the project (modern Aframax	The City considers that a general assertion of “low probability” of a fire	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided	Trans Mountain’s response does not address the City’s explanation for the

(b)	<p>fighting, specifying the resource level, skills of trained personnel, as well as around-the-clock availability of the resources.</p>	<p>and Panamax tankers) is prevented by adhering to a strict systems approach that includes global regulation on tanker design, construction methods, preventative equipment and processes (such as maintaining cargo tanks in inert condition at all times), only fitting or using intrinsically safe equipment, crew training, inspections, surveys, audits and certification. Since implementation of mandatory use of inert gas to all crude oil tankers, the threat of fire and explosion onboard a tanker related to her cargo has been almost eliminated. The advent of double hull tankers has further reduced such threats as a result of collisions or other high energy impacts. Tanker crews are trained to maintain an onboard environment free of ignition threats and various prevention and detection elements are designed into the construction of the tanker. Therefore, fire on a project tanker involving the cargo is not considered a credible incident.</p> <p>The ship's machinery spaces are protected with fixed firefighting equipment such as CO2, high expansion foam, water mist system. A fire in any of these spaces can be extinguished effectively using such systems.</p> <p>Fire in the galley or accommodation can be managed effectively by the ship's crew using the ship's firefighting equipment such as fire hoses and fire extinguishers or, depending on the space, fixed equipment such as sprinklers. Please see Section 3.7, Technical Report TR 09 TERMPOL 3.11, Volume 8C, Cargo Transfer and Transshipment Systems (L.J. Swann &</p>	<p>event does not justify a lack of information in this area.</p> <p>While general statements were made in terms of fire prevention and response resource availability, there is no detail provided in terms of the exact quantity and capacity of such resources. The City requires an adequate and complete response to the request.</p>	<p>sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>
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		<p>Associates, Moffatt & Nichol 2013) (Filing ID A3S4T6), for information on firefighting equipment that a tanker would carry as a result of international regulations. The probability of a fire in the galley or accommodation escalating into a fire and explosion involving the cargo is also a remote event and therefore not considered credible.</p> <p>The possibility of a fire involving cargo during cargo operations is of extremely low likelihood. Cargo tanks of the tankers are kept in inert condition (oxygen content less than 8%) at all times, even while loading the tank, obviating the possibility of fire or explosion of the tanker. At Westridge, the vapour generated in a tanker’s cargo tanks during loading is collected and piped to shore for processing. The combined effect of a “closed loading system” is further reduction in the likelihood of a fire during cargo loading.</p> <p>For more details about this please refer to Volume 8C Technical Reports TR 08 TERMPOL 3.10 Site Plans and Technical Data (Filing ID A3S4T3), TR 09 TERMPOL 3.11 Cargo Transfer and Transshipment Systems (Filing ID A3S4T6), and TR 12 TERMPOL 3.15, General Risk Analysis (filing ID A3S5F4)</p> <p>Aside from mandatory response capability on the vessel, Westridge terminal has the capacity to apply water and foam to the deck of a tanker at Westridge (Refer to City of Vancouver IR No. 1.10.12e, Filing ID A3Y2G6). If necessary water can be supplied to the vessel’s fire mains using</p>			
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		<p>the international shore connection. Several tugs in the area have the capability to apply their water cannons on a vessel and carry out boundary cooling or firefighting. Trans Mountain understands that there are ongoing discussions involving the City of Vancouver, Port Metro Vancouver, and cities and municipalities in Metro Vancouver to develop additional capacity of trained firefighters who can assist in case of any ship fire in the harbour. Trans Mountain understands that the discussions with cities and municipalities in Metro Vancouver could extend to the procurement of additional fire boats. Resources onboard the ship and at Westridge Terminal are available round the clock. Ship's staff are trained to deal with shipboard emergencies, including fire onboard.</p>			
3.2 (d)	<p>Please provide long term storage and disposal of oil waste and contaminated material from a marine oil spill/tanker accident that may occur as a result of activities from the Project, specifying:</p> <ul style="list-style-type: none">• The long term storage and disposal plan for any salvaged material (oil, vessels, etc);• Whether or not any material can be properly disposed of in a safe and environmental friendly method;• The agency which incurs the cost for permanent storage/removal;• The place of refuge.	<p>During an oil spill, best management practices play a major role in minimizing and managing wastes. To that end, the practices are to:</p> <ul style="list-style-type: none">• Segregate waste streams on land and water• Using pre-determined control points provide access so that response equipment can be deployed and solid and liquid wastes taken away on existing roadways. Work areas are located on level ground outside of flood zones.• Prevent secondary contamination by demarcating and securing contaminants, including the use of liners, impermeable berms, rain covers for storage tanks, and proper drainage, where collected materials	<p>The response does not provide detail on the long term storage and disposal of contaminated materials (apart from oil), as well as the place of refuge for said materials, as requested.</p> <p>The City requires details on where and how all oil wastes and contaminated materials would be disposed of.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>

		<p>are stored on an interim basis.</p> <ul style="list-style-type: none">• Use a variety suitable vehicles to transport wastes. Vehicles may include landing craft, small mini-barges, and dracones on water, lined dump trucks and tank trucks on land, and helicopter-slung collapsible tanks. All vehicles are only allowed to leave a site once it is determined that their load will not generate a secondary pollution issue.• On many spills, municipalities contribute to the spill response and waste management process by providing security for areas and roadways through police participation. Municipal landfills and incinerators have also been utilized in BC spills since the Nestucca Barge incident, in 1989. <p>Within the Incident Command System (ICS), the BC Ministry of Environment provides guidance for oil spill waste management under the Environmental Management Act (EMA). The legislation is detailed on the Ministry’s website including registration forms to manage waste streams by type and quantities. BC regulations also recognize the federal Transportation of Dangerous Goods Act by identifying hazardous wastes as those substances “no longer being used for their original purpose, and those meeting the criteria for Class 2, 3, 4, 5, 6, 8 or 9 of the federal dangerous goods regulations, including those that are recycled, treated, abandoned, stored or disposed of, intended for recycling, treatment or disposal or in storage or transit before recycling, treatment or disposal”.</p> <p>Waste oil, including oil recovered during a</p>			
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		<p>spill cleanup operation, is specified in the legislation “where the oils are in the waste in a total concentration greater than 3% by weight and the oils through use, storage or handling have become unsuitable for their original purpose due to the presence of impurities or loss of original properties.”</p> <p>Part 2 of the EMA specifies minimum siting standards for all hazardous waste facilities while Part 3 lists the operational requirements of such facilities, including security and training. The waste oil generated from a spill (in quantities of 210 litres or more) must be properly manifested for its transportation to a hazardous waste facility and will not be accepted for disposal in quantities of more than 100 litres or 100 kilograms unless the weight or volume of the shipment has been measured. Records must be kept by the waste facility for 2 years.</p> <p>For hazardous wastes generated from an accidental spill, exemption from the Regulation (Part 9 Section 52) can be sought from “a director” at the Ministry of Environment provided that the person will manage the hazardous waste in a manner that will not pose a threat to human health or the environment, and the exemption is in the public interest.</p> <p>With regard to “the agency, which incurs the cost for permanent storage/removal,” Canada’s oil spill compensation regime is based upon polluter-pay-principles, and all costs, including waste disposal costs will be paid for by the Responsible Party.</p> <p>With regard to whether “resources</p>			
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		available are adequate for the long-term storage and disposal of oil waste and contaminated materials, in the worst case scenario,” waste generation is a function of the size of the affected area, the degree of oiling, the soil matrix and recommended treatment options. Wastes will be managed by the Unified Command in general and specifically as detailed in a situation-specific Waste Management Plan. As such, Trans Mountain cannot comment further on the requested information.			
3.2 (d)(i)	Please comment on whether the emergency rescue and recovery resources available are adequate for the long-term storage and disposal of oil waste and contaminated materials, in the worst case scenario.	Not directly referenced.	The long-term storage and disposal of oil waste and contaminated materials is one part of the full emergency response. Trans Mountain should either have these information available for Intervenor, or should provide an adequate rationale for not providing such information, instead of diverting the issue to an un-established “Unified Command” or “Waste Management Plan”. The City requires a full and adequate response.	In accordance with Board Ruling No. 31 and Ruling No. 50 (Filing IDs A63036 and A65390), the response was full and adequate. Trans Mountain has provided sufficient information to meet the Board’s requirements at this stage in the process and no further response to the IR is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.2 (e)	Please provide details on the agencies and parties involved in the process of storing and disposing of any salvaged materials.	Refer to the response to City of Port Moody IR No. 2.3.02d.	The response does not provide adequate information with regards to the regulatory agencies and parties (e.g., consultation with local government, stakeholders, etc.) involved in the process of storing and disposing of any salvaged materials, as requested.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.2 (e)(i)	Please provide evidence demonstrating that these agencies have been adequately consulted with, as well as any legal agreements between these agencies with Trans Mountain and WCRMC or other potential Responsible Parties of an oil-spill event associated with	Not directly referenced.	No response provided. The City requires clarity on whether or not other agencies involved have been consulted on the long-term storage and disposal of oil waste and contaminated materials, especially in light of the statement Trans Mountain made in response to request 3.2(d)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

	the proposed Project.		regarding municipalities' contribution to spill response and waste management process.		
3.2 (f)	Please provide rationale if any of the above cannot be provided.	All of the above have been answered.	Not all answers have been provided (see above). If adequate responses cannot be provided, Trans Mountain should provide rationale.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Not all answers have been provided (see above). If adequate responses cannot be provided, Trans Mountain should provide rationale.

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.3 (a)	While WCMRC is a licensed agency to respond to marine oil spills and tanker accidents, please indicate and describe situations during which WCMRC may not be the primary responder, such as when the Responsible Party chooses to not contract WCMRC's services.	Based on the <i>Canadian Shipping Act, 2001</i> (CSA), WCMRC is the certified response organization with response bases and equipment caches sited along the B.C. coast. Under the CSA, WCMRC receives responder immunity, something that is not available to other non-certified responders unless they are working under WCMRC. By law, each vessel operator and oil handling facility is required to have an arrangement with WCMRC with respect to a marine oil spill in B.C.'s navigable waters, whatever the cause of that incident. That said, the Responsible Party can contract with additional resources that will be monitored closely by the Canadian Coast Guard (CCG), as the federal monitoring officer. Also, the Unified Command, under oversight of the CCG, may utilize other service providers to deal with aspects of the incident, such as towing, salvage and marine firefighting needs.	The City requires specific responses on when WCMRC may not be the primary responder, as requested. The response discusses that arrangements must be made with WCMRC with respect to a marine oil spill in BC's navigable waters, however neglects to discuss situations where WCMRC would not be contracted for the actual service. Does Trans Mountain's statement with regards to WCMRC receiving responder immunity suggests that WCMRC will always be contracted in all responses?	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.3 (b)	Please provide an assessment of how the emergency response system planned for the Project compares to the performance standards of an Optimal Response System as described in the referenced document.	<p>Although the information requested is not within the scope of this proceeding and not relevant to the NEB's List of Issues, Trans Mountain offers the following response to your question.</p> <p>According to Canada's National Emergency Response System (refer to City of Port Moody IR No. 2.3.03b - Attachment 1):</p> <p><i>Emergency Management Organizations have been established in every province and territory and are, among others, responsible for coordinating a comprehensive, cross-government, all</i></p>	The City object to the views of Trans Mountain that this question is not relevant to the NEB's List of Issues. The request specifically asks to compare the Project's Emergency Response System to recent recommendations for marine spill response management practices. The objective of this question is to understand whether or not the planned ERS related to the Project reflects good practice on marine oil spill and is thus absolutely related to the List of Issues.	The Optimal Response System described in the Intervenor's reference was proposed for the remote and sparsely populated Aleutian Island archipelago that extends over 1,000 miles into the Pacific Ocean. It is hardly comparable to the TMEP tanker route, which transits a well-supported maritime area supported by: 1) the Vessel Traffic Management Systems of both the U.S. and Canada; 2) professional pilots supplied by the Pacific Pilotage Authority; 3) a resident response system maintained by WCMRC; and 4) a legislatively defined Federal and Provincial emergency management program well-	The City disagrees with the view of Trans Mountain that the Optimal Response System referenced is irrelevant for comparison to the TMEP application. The recommendations in the document refers to many measures, based on best practices, that are applicable across emergency response systems regardless of locations, and highlights the major recommendations on emergency response systems, including but not limited to managing entity, routing measures and vessel monitoring, emergency towing, salvage services, and oil spill responses. The objective of this question is to understand whether or not the planned ERS related to

	<p><i>hazards approach to managing emergencies whenever it applies. Officials within these organizations maintain constant contact with the Government Operations Centre during an emergency as required to facilitate the timely exchange of information.</i></p> <p>For spills and emergencies in BC, this is explained further in the following paragraph (refer to City of Port Moody IR No. 2.3.03b - Attachment 2):</p> <p><i>Local government has a responsibility to assess local risks, prepare emergency response plans, and to have a delivery capability commensurate with the types and level of hazard that exist in their community. When an emergency occurs, response normally begins with local government (e.g. local fire department) and a bottom up escalation takes place if resources are insufficient. Local governments may be represented within the Incident Management Structure if affected by a large, complex incident.</i></p> <p>Trans Mountain expects that the role of local governments would be determined by the geographic extent of the incident in relation to their jurisdiction and be guided by their regulatory powers. For example local governments typically have authority to order and conduct evacuations and to close roads, redirect traffic, public transit and other transportation related infrastructure. KMC agrees with the interpretation of the federal, provincial and municipal legislation dealing with emergency programs.</p> <p>Utilization of ICS allows industry, response</p>		<p>detailed in the response to City of Port Moody IR NO. 2.3.03 (b) (Filing ID: A4H8G7).</p>	<p>the Project reflects good practice on marine oil spill.</p> <p>The City requires that a full and adequate response to its requests.</p>
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		organizations and others to effectively respond in a comprehensive and joint manner during emergencies.			
3.3 (b)(i)	Please indicate a single managing entity or coordinating body to administer all of the prevention and response components, such as that recommended by the referenced document and that adheres to the principles of 1. Prevention takes priority over response, and 2.	<i>Not directly referenced.</i>	There was no response provided with respect to this question.	Please see the response to 3.3(b).	Please see the response to 3.3(b).
3.3 (b)(ii)	Please provide rationale if any of the above cannot be provided	<i>Not directly referenced.</i>	Please see City's comments on 3.3(b) and (b)(ii).	Please see the response to 3.3(b). In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see the response to 3.3(b). Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.3 (c)	Please indicate any real time monitoring of vessel traffic in the Strait of Georgia and Burrard Inlet that would establish real time vessel routing measures and areas to be avoided, as well as enable quick problem identification.	Canadian Coast Guard Marine Communication Traffic Services (MCTS) monitors vessel traffic in the Strait of Georgia and Burrard Inlet using radar, AIS, VHF radio and strategically located cameras. MCTS, working together with onboard pilots of the BC Coast Pilots Association and Port Metro Vancouver's operations center, are able to ensure quick problem identification and advise vessels in order to mitigate a developing situation.	The response by Trans Mountain does not specify whether or not the monitoring systems are real time systems, as requested.	The existing monitoring of vessel in the area by MCTS is in real time	No further information is required.
3.3 (c)(i)	If a real time monitoring system does not exist, please comment on how the lack of such system can affect the risk of vessel collisions and provide evidence to support that the increase in tanker traffic will not significantly increase the risk of vessel collisions.	Refer to response to c) above.	Please see City's comments on 3.3 (c)(i).	The existing monitoring of vessel in the area by MCTS is in real time.	No further information is required.
3.3	Please provide any investments	Refer to response to c) above.	The response referenced in this request's	There is already an existing real time	No further information is required.

(c)(ii)	and commitment for Trans Mountain to invest into a real-time monitoring system for vessel traffic in the Burrard Inlet and the Strait of Georgia to mitigate any increases of risk of vessel collisions.		response does not specifically address the information on investments as requested.	monitoring system for vessels in the area by MCTS is in real time. Information of additional investment is therefore not applicable and therefore not provided.	
3.3 (d)	Please provide availability of an In-Region Incident Management Team in the Burrard Inlet region, such as that described by the Nuka Research and Planning Group (2014), specifying details of: <ul style="list-style-type: none"> • Municipal representation; • Funding sources; and • Permanency of such Team. 	Refer to response to City of Port Moody IR No. 2.3.03b.	The City requests clarity on whether or not an In-Region Incident Management Team actually exists, as well as details about such Team. The response references another response which does not contain the requested information.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required. Please refer to City of Port Moody Motion IR NO. 3.3(b) for a discussion of <i>why</i> an in-region <i>incident management team</i> does not exist as described in the Intervenor's reference. Nevertheless fulfillment of those functions under existing Federal and Provincial programs are described in the response to City of Port Moody IR No. 2.3.03 (b) (Filing ID: A4H8G7).	Based on the response provided, the City understands that there is no In-Region Incident Management Team in the Burrard Inlet region. Please confirm that the understanding, as stated above, is correct.
3.3 (d)(i)	Please provide details of how the In-Region Incident Management Team functions within the Incident Command System.	Not directly references.	See City's response 3.3(d)	Please see the responses to City of Port Moody Motion IR No. 3.3(b) and City of Port Moody Motion IR No. 3.3(d) .	Please see City's comments on 3.3(d).
3.3 (d)(ii)	If an In-Region Incident Management Team does not exist, please provide details of how this may affect the Emergency Responders' understanding of local issues and situations, as well as the decision process of making local response decisions.	Not directly references.	See City's response 3.3(d)	Please see the responses to City of Port Moody Motion IR NO. 3.3(b) and City of Port Moody Motion IR No. 3.3(d) .	The responses provided does not specifically discuss how the lack of an In-Region Incident Management System may impact the Emergency Responder's understanding of <u>local issues and situations</u> , as well as the decision process of making local response decisions. Please provide a full and adequate as requested in the original information request.
3.3 (e)	Please provide details of Trans Mountain's cascading plan to bring out-of-region spill response, salvage, and marine firefighting resources in the event of a major	In its Application to the NEB, Trans Mountain has proposed an enhanced oil spill response regime that is well documented in Volume 8A, Table 5.5.3 (Filing ID A3S4Y6). The plan, which calls for	The response does not provide information as requested and is not provided in accordance to Procedural Direction No.9, which states: "Trans Mountain must provide a full response to each IR; not merely cross-	Mutual aid is based on the availability of equipment from donating organizations that exists above their minimum response equipment retention levels (also known as resident non-cascadable resources). The	The response does not provide the information requested. The City requested specific documentation that provides the "details of Trans Mountain's cascading plan to bring out-of-region spill response, salvage,

	<p>accident.</p>	<p>establishment of a number of additional response bases in the region would allow for cascading of equipment from the various bases to a spill site location depending upon proximity and need. This is well explained in the Future Oil Spill Response and Approach Plan (Filing ID A3S5I9). In Province BC IR No. 1.1.67.a and 1.1.67.e (Filing ID A3Y2Z1), WCMRC provides a list of organizations it currently has mutual aid agreements with, as well as information on the equipment that can be “cascaded in” to support its response efforts in the event of an oil spill.</p> <p>Salvage is the act of saving a ship or its cargo from perils of the seas and compensation given to those who voluntarily save a ship or its cargo. This is not a requirement for within Burrard Inlet. However should it become necessary, any or many of the tugs within the harbour would be capable of voluntarily assisting a ship in peril within the harbour. As large commercial vessels such as Project tankers are continuously tethered to a number of tugs when transiting through the harbour, the possibility of one tanker requiring salvage assistance is not at all a credible scenario.</p> <p>For information on tanker fire, please refer to City of Port Moody IR No. 2.3.15a.</p>	<p>reference a response to a similar question asked in January 2015 by the Board or an intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document.”</p>	<p>release of equipment to satisfy a mutual aid request is usually contingent upon approval of the donating organization’s members or regulatory oversight agency. WCMRC tests the mutual aid component of spill response as part of their exercises. There is a unit in the Logistics section of the WCMRC ICS organization called "mutual aid/ international support group". This group is made up representatives from our Mutual aid partners, WCMRC employee, US Customs (when available) and Canadian Border Services. Calls / e-mail requests will be made to other response organizations requesting availability of resources. WCMRC has mutual aid agreements established with</p> <ul style="list-style-type: none"> - National Response Corporation (NRC); - Washington State Maritime Commission (WSMC); - Southeast Alaska Petroleum Response Organization (SEAPRO); - Eastern Canada Response Corporation (ECRC); and - Association of Petroleum Industry Cooperative Managers (APICOM). 	<p>and marine firefighting resources in the event of a major accident”, rather than information on “mutual aid agreements”.</p> <p>The City requests a full and adequate response to its information request.</p>
3.3 (f)	<p>Please assess the cost to establish and/or strengthen an In-Region Management Team and an out-of-region spill response cascading plan and whether or not Trans Mountain and/or industry will provide funding support to such systems.</p>	<p>The information requested is not within the scope of this proceeding and not relevant to the NEB’s List of Issues.</p> <p>Trans Mountain supports discussions related to strengthening In-Region Management and out-of-region spill response plans, however it should be noted that <i>plans and authority related to</i></p>	<p>Any cost associated with the establishing and/or strengthening of an In-Region Management system and an out-of-region spill response cascading plan to provide more adequate response system for marine accident related to the Project is an indirect cost of the proposed Project. The City requires clarity on whether or not Trans Mountain and/or the industry will provide</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<i>the TM tanker route is relatively mature based on the functional presence of the Canadian Coast Guard, British Columbia Ministry of Environment, Transport Canada, Western Canada Marine Response Corporation, and the well-developed coastal marine industry.</i>	funding support to such a system, as originally requested. The response does not contain such clarity and the City requires a complete and adequate response.		
3.3 (f)(i)	Please provide rational if Trans Mountain does not plan to support the development and implementation of an In-Regional Management Team and/or out-of-region spill response cascading plan for the lifetime of the proposed Project.	<i>Not directly references.</i>	Please see City’s comment on 3.3(f).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comment on 3.3(f).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.4 (a)	<p>Please provide details of any establishment (or plans to establish) a near shore spill response taskforce in the Metro Vancouver region, specifying:</p> <ul style="list-style-type: none">• The participants,• Long term viability of the taskforce,• Long term funding support for such taskforce, and• Involvement of municipalities.	<p>Although the information requested is not within the scope of this proceeding and not relevant to the NEB’s List of Issues, Trans Mountain offers the following response to your question.</p> <p>Shoreline types and shoreline sensitivities form part of WCMRC’s mapping database. As for shoreline protection strategies, these are built to address the sensitivities that have been identified as part of the coastal mapping project. Each sensitivity has a corresponding geographic response strategy and protective assignment developed and ready to be implemented in the event of a spill.</p> <p>Shoreline cleanup operations are managed through a hierarchy within the Unified Command. The basis for shoreline cleanup is the Shoreline Cleanup Assessment Technique (SCAT) that utilizes teams of experts to go into the field to systematically categorize the shoreline and develop treatment recommendations. These treatment recommendations will take into account the soil matrix, biological factors and be unique to each particular area. In general, shoreline cleanup operations may include, but not be limited to: hand removal of stranded oil, low pressure/low temperature flushing, and natural attenuation. In all cases, a net environmental benefit analysis will take place to ensure the recommended treatment will yield the best result with the least disruption to the environment.</p> <p>Although some of the information, such as oiling conditions, must be collected real time, a large amount of directly relevant shoreline information can be assembled pre-spill and a dataset of knowledge, critical to feeding the SCAT process</p>	<p>The request is absolutely connected to the List of Issues as it specifically addresses an element of oil spill response related to the Project, and therefore disagrees with Trans Mountain’s rationale for not providing an answer based on Trans Mountain’s assessment that the request is not within scope and not related to NEB’s List of Issues.</p> <p>If Trans Mountain’s understanding is that there would be no establishment of a near shore spill response task force, the City requests that the response states such understanding clearly and completely. Otherwise, the City expects to receive adequate response with regards to the establishment (or plans to establish) a near shore spill response taskforce.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information has been provided and Trans Mountain’s response is full and adequate. As noted by the Board in Ruling No. 33, if an Intervenor disagrees with the answer, rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<p>and shoreline response decision making, can be prepared in advance of a spill. To support improved Area response plans, pre-SCAT assessments have been completed for Central Burrard Inlet to identify those shoreline features that will have significance to the cleanup efforts employed during a spill. In addition to baseline geomorphological data, possible safety concerns and potential access route information can be recorded to increase the efficiency of SCAT surveys and shoreline cleanup operations during an incident. This effort supports both the Trans Mountain Pipeline Expansion Project, and the emergency response plans for existing operations at the Westridge Terminal. WCMRC, Trans Mountain, and all other shareholders now have a tool for immediate spill response and are positioned to more effectively respond to a marine spill event.</p> <p>Additionally, WCMRC periodically engages in shoreline cleanup training and exercises with local contractors.</p>			
3.4 (a)(i)	<p>Please provide details on past exercises for shoreline oil cleanup in the region, if any. Please identify those with municipal involvement and those without, and provide details of the exercise and official review reports (e.g. size, location, volunteer management activation, etc.).</p>	<p><i>Not directly referenced.</i></p>	<p>No response was provided to this request. The City requires a complete and adequate response.</p>	<p>The information requested is not within the scope of this proceeding and not relevant to the National Energy Board's (NEB) List of Issue. Trans Mountain believes that sufficient information has been provided to address the National Energy Board's (NEB) List of Issues (Filing ID A3V6I2).</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>
3.4 (a)(ii)	<p>Please provide plans for future shoreline oil cleanup exercise in the Burrard Inlet and Port Moody</p>	<p><i>Not directly referenced.</i></p>	<p>No response was provided to this request. The City requires a complete and adequate response.</p>	<p>The information requested is not within the scope of this proceeding and not</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request.</p>

				relevant to the National Energy Board's (NEB) List of Issue. Trans Mountain believes that sufficient information has been provided to address the National Energy Board's (NEB) List of Issues (Filing ID A3V6I2)	The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.4 (b)	Please provide the Volunteer Management Plan, including provisions and strategies for volunteer registration systems, equipment, safety training and orientation, etc., in the event of an oil spill in Metro Vancouver, if any	<p>Neither Trans Mountain nor West Coast Marine Response Corporation (WCMRC) rely on volunteers for emergency response. As described in Section 4.5 and Section 4.6 of the application Volume 7 (Filing ID A3S4V5), Kinder Morgan Canada Inc. (KMC) maintains a network of response resources, which includes internal and external equipment and personnel. A rigorous training and response exercise program is in place for all operations and head office staff that ranges from detailed equipment deployment drills to full ICS management and organization training and deployment. KMC belongs to a number of response organizations and participates in mutual aid exercises to supplement the company's self-reliant response capability. KMC has contracts and master services agreements with a number of response contractors to supply equipment and/or personnel during an emergency, examples of which can be found in Section 4.5.2 of Volume 7 (Filing ID A3S4V5).</p> <p>The ICS system for emergency management provides a proven and robust means to address the dynamic requirements of a response situation, including those presented by emergent volunteers.</p> <p>Under ICS the response would be guided, in-part, by a safety plan developed to address the specific conditions of the incident. The plan would</p>	The City is specifically asking for a copy of the Volunteer Management Plan. If Trans Mountain does not have such a Plan, the response should clearly state such fact.	As noted in the response to City of Port Moody IR No.2.3.04 (b) (Filing ID: A4H8G7) , <i>neither Trans Mountain nor WCMRC rely on volunteers for emergency response</i> and as such, there is no Volunteer Management Plan.	No further information is required.

		<p>establish requirements for safe work practices, which in-turn establish requirements for PPE and safety training. Similarly, a security plan would be developed to address the unique conditions of the response. Both the safety and security plans would be approved by the unified or incident command.</p> <p>As part of the response, a perimeter would be established to control against theft or tampering and to ensure responders who are admitted into the incident site are authorized and have the appropriate level of training and personal protective equipment. Volunteers who show up on scene unrequested by unified or incident command would not be admitted on site. In the event that emergent volunteers were identified or anticipated to engage in unsafe “free-lancing” activities outside the managed response efforts the information officer, working with the safety officer, would be tasked by unified or incident command to develop and deliver messaging, education, and other proactive measures to address the situation.</p> <p>While volunteers would not be used, situations could arise where emergent volunteers present a potential pool from which to hire and train response workers. In the event that external resources (general labour or particular skills) were required to meet objectives established by unified or incident command, emergent volunteers would be directed to the procurement function of ICS which is responsible for sourcing any additional labour, supplies or equipment required for the response. ICS procurement would establish a process to inventory applicants and hire and train them as needed.</p>			
3.4 (c)	Please describe how the City of Port Moody will be consulted and involved in volunteer management.	Refer to response to City of Port Moody IR No. 2.3.04b.	No specific details on the City’s involvement and any consultation with the City with regards to volunteer management is clearly provided.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient	Based on Trans Mountain’s response to City’s Motion for the City of Port Moody IR No. 3.4 (b), the City understands that Trans Mountain does not have a Volunteer Management Plan and as

				information and detail for the Board in its consideration of the application and no further response is required.	such does not have developed specific procedures on how the City of Port Moody would be consulted and involved in volunteer management. Please confirm that the City's understanding, as stated above, is correct.
3.4 (d)	<p>Please provide a near shore long-term cleanup plan and procedures, specifying:</p> <ul style="list-style-type: none">• Cleanup methods and decision-making protocols for use of different cleanup methods identified, and• Optimal cleanup measures for 1-day/4-day/1-week/2-week/1-month/3-month/6-month timeframes, based on varying conditions (e.g. location, weather, type of product, etc.)	<p>Clean up plans are developed to address specific incident conditions and depend upon many details that cannot be known in advance. The questions cannot be answered in the form requested.</p> <p>Shoreline cleanup operations are managed through a hierarchy within the Unified Command. The basis for shoreline cleanup is the Shoreline Cleanup Assessment Technique (SCAT) that utilizes teams of experts to go into the field to systematically categorize the shoreline and develop treatment recommendations. These treatment recommendations will take into account the soil matrix, biological factors and be unique to each particular area. In general, shoreline cleanup operations may include, but not be limited to: hand removal of stranded oil, low pressure/low temperature flushing, and natural attenuation. In all cases, a Net Environmental Benefit Analysis (NEBA) will take place to ensure the recommended treatment will yield the best result with the least disruption to the environment.</p> <p>Development of optimal cleanup measures, typically referred to as Shoreline Treatment Recommendations (STRs), is a site-specific function linked to the size of the affected area, the degree of oiling, the soil matrix and environmental sensitivities. Constantly changing conditions (i.e. winds, current, height of tide, executed mitigation efforts, shoreline shape) do not make it possible to provide a timeframe of cleanup measures.</p>	<p>Based on the response provided, the City understands that:</p> <ul style="list-style-type: none">• There is no long-term near shore cleanup plan;• Trans Mountain is unable to provide details of such a Plan for various reasons (e.g., "constantly changing conditions do not make it possible to provide a timeframe of cleanup measures," "cleanup plans are developed to address specific incident conditions and depend upon many details that cannot be known in advance."). <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>

		<p>Shoreline cleanup plans will typically involve the following steps:</p> <ul style="list-style-type: none">• Collect and evaluate information• Define response objectives• Develop shoreline treatment strategies• Evaluate treatment feasibility and establish response tactics• Formalize treatment plan• Execute treatment• Undertake post-treatment surveys with respect to endpoints• Monitor			
3.4 (e)	<p>Please provide risk assessment and procedures on shoreline cleanup, specifying long term environmental and health impacts (physical and mental) for first responders, volunteers, and residents assessed at 7-day/2 week/1-3 month/6-month/1-year/2-year intervals. Assessment should be based on differing methods and levels of exposure to diluted bitumen (e.g. skin contact, inhalation, etc.)</p>	<p>Although the information requested is not within the scope of this proceeding and not relevant to the NEB's List of Issues, Trans Mountain offers the following response to your question.</p> <p>Clean up plans are developed to address specific incident conditions and depend upon many details that cannot be known in advance. The questions cannot be answered in the form requested. For background information, refer to response to City of Port Moody IR No. 2.3.04d.</p> <p>Trans Mountain conservatively modeled a large operational spill scenario at the Westridge Terminal based on a tanker loading operation incident that resulted in a 160 m3 oil spill at the dock complex (the calculated credible spill during cargo transfer was identified as 103 m3 by DNV). It is standard operating procedure that the receiving tanker be pre-boomed prior to commencement of the loading operation. As such, 128 m3 was contained within the boom and recovered. For modeling purposes it was assumed that 32 m3 escaped the primary containment.</p> <p>In the simulation, Western Canada Marine Response Corporation (WCMRC) arrives on-site within 1-hour of notification. Over the next 13-hours, WCMRC initiates the following strategies:</p> <ul style="list-style-type: none">• Collection booming at two locations	<p>The response did not provide a risk assessment and procedures on shoreline cleanup, nor long term environmental and health impacts as requested.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>

		<p>west of the Westridge Marine Terminal</p> <ul style="list-style-type: none">• Protective booming at pre-identified sensitive locations in Burrard Inlet• Mobilization of eight skimming vessels• Mobilization of two large temporary storage barges• Mobilization of two 40-tonne mini-barges• Dispatch of vacuum trucks to support recovery and storage activities <p>Within 8-hours after the spill began, about 11 m3 of the hypothetical 32 m3 of oil that escaped the boom was recovered on the water. Thereafter, passive sheen management with sorbent products was used as a viable but unquantifiable countermeasure for the response organization to employ. Additionally of oil volume that escaped the boom, 3 m3 would require shoreline treatment.</p>			
3.4 (e)(i)	Please provide evidence demonstrating the accuracy of the above assessments.	Not directly referenced.	No response was provided; the City requires a full and adequate response.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.4 (f)	Please provide rationale if any of the above cannot be provided.	Trans Mountain has responded to City of Port Moody IR No. 2.3.04a to 2.3.04e.	Please see City's comments on 3.4(a) to (e).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 3.4(a) to (e).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.5(a)	<p>Please provide detailed mudflat cleanup protocols and plans, as well as related environmental and health risks assessments for responders and volunteers. Specifying:</p> <ul style="list-style-type: none">• 1-day, 7-day, 1-month 3-months, and 6-months timelines;• Equipment and resources;• Fate of the product;• Cleanup and recovery potential;• Containment measures;• Costs of cleanup; and,• Municipal involvement, roles and responsibilities.	<p>Although some of the information requested is not within the scope of this proceeding and not relevant to the NEB's List of Issues, Trans Mountain offers the following response to your question. For background information, refer to response to City of Port Moody IR No. 2.3.04d.</p> <p>Because intertidal mudflats are difficult and possibly hazardous to walk upon, containment boom deployment would likely occur from a boat. Ideally deployment would target the high tide window to facilitate the best access to the shoreline. General-purpose boom would be used to provide protective and exclusionary booming that is compatible to the local shoreline features. Shore seal boom, constructed with an air-filled flotation chamber and a water-filled skirt, would also be deployed in areas where it was appropriate to seal the shore at the water's edge.</p> <p>In general, mudflat cleanup operations may include, but not be limited to: low pressure/low temperature flushing followed by mechanical and/or passive recovery with sorbent products and natural attenuation. In all cases, a Net Environmental Benefit Analysis (NEBA) will take place to ensure the recommended treatment will yield the best result with the least disruption to the environment.</p> <p>KMC agrees with the federal, provincial and municipal legislation dealing with emergency programs.</p>	<p>The request is relevant to NEB's List of Issues as it specifically addresses an element of oil spill response related to the Project.</p> <p>The request is inadequate as it solely provided some limited information with regards to booming but nothing else. The City requires a complete and adequate response to this question.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>
3.5(b)	<p>Please specify the effects of mudflats with diluted bitumen products, specifying:</p> <ul style="list-style-type: none">• The length of time the products would remain in the mudflat;	<p>Although some of the information requested is not within the scope of this proceeding and not relevant to the NEB's List of Issues, Trans Mountain offers the following response to your</p>	<p>The request is relevant to NEB's List of Issues as it specifically addresses an element of oil spill response related to the Project.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to</p>

	<ul style="list-style-type: none">• The potential for spread of the oil from mudflats to shoreline;• The health impacts of such products for users of the Port Moody Shoreline Trail;• The standard assessment procedures to determine the safety of nearby shoreline trails and public area closures and reopening if the Port Moody mudflats are contaminated with diluted bitumen at different rates (e.g. 10% area contamination, 50%, at 90%);• The fate of the product in the mudflat and on the shoreline; and• Human and ecological risk of the product present in the mudflat and on the shoreline.	<p>question. For background information, refer to response to City of Port Moody IR No. 2.3.04d.</p> <p>Clean up plans are developed to address specific incident conditions and depend upon many details that cannot be known in advance. The questions cannot be answered in the form requested. Specific incident action plans such as communication plans, security plans, initial health and safety plans, health and safety plans, refuelling plans, lodging and food plans, medical plans etc. are documents that are produced at the time of an incident as part of the overall Incident Action Plan. The content and format of these specific action plans is largely driven by the Incident Command System (ICS) process.</p> <p>The likelihood of a spill from a project tanker or the terminal is low; however, should a spill of diluted bitumen occur and reach mudflats, the oil would likely spread on the mudflat surface and may possibly penetrate burrows. Spilled oil will undergo weathering, which increases its viscosity. Given the water-saturated conditions on mudflats and their fine-grained, low permeability character, oil penetration typically is very limited in these settings. Rising water levels, such as with incoming tides, generally will lift oil stranded on mudflats and could transport oil to other shoreline areas. On-water containment and recovery strategies, as well as shoreline protection strategies, would minimize re-distribution of oil to other shorelines (refer to response to City of Port Moody IR No. 2.3.05a). The top priority for any spill situation is to ensure safety of the public and responders. Air monitoring and access controls are two key elements of spill response. Shoreline areas (including mudflats) in which spill cleanup operations are underway would not be open to the public until Unified Command had</p>	<p>The response provided some limited information with regards to the effects of oil on mudflats, but lacks details and specific answers to the requested items. Also, it refers to oil and bitumen interchangeably and does not provide clarity on what the response is referring to, when the City is specifically requiring the fate of diluted bitumen on mudflats.</p> <p>Furthermore, the response refers to actions plans that are unrelated to the request, such as the mention of “communication plans, security plans, initial health and safety plans, health and safety plans, refuelling plans, lodging and food plans, medical plans etc.” The City reiterates that the nature of the request is on the effects and impacts of diluted bitumen products on mudflats, rather than “communication plans, security plans, initial health and safety plans, health and safety plans, refuelling plans, lodging and food plans, medical plans etc.”</p>	<p>information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>
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		<p>determined that site conditions were safe.</p> <p>Section 8.3 of Volume 7 in the Application (Filing ID A3S4V6) discusses potential environmental effects of hypothetical spills in Burrard Inlet and the Ecological Risk Assessment of Westridge Marine Terminal Spill (Technical report 7-2, Volume 7, Filing ID A3S4X1) explains ecological risks from spills. Section 8.4 of Volume 7 in the Application discusses human health risk assessment of hypothetical spill situations in Burrard Inlet (Filing ID A3S4V6).</p> <p>Trans Mountain believes that sufficient information has been provided to address the National Energy Board's (NEB) List of Issues (Filing ID A3V6I2).</p>			
3.5(c)	Please provide details of all past oil spill cleanups on mudflats, specifying all relevant considerations including but not limited to lead Response Agency, clean up measures employed, timelines for cleanup activities, recovery rates, impacts to local ecology and risks posed to human health.	The intervenor's question cannot be answered because the question asks for "all past oilspill cleanups on mudflats" and "all relevant considerations" and this request is too broad and exceeds the scope of the NEB's List of Issues (Filing ID A3V6I2).	The request is within the scope of NEB's List of Issues and requests that Trans Mountain provide details of all past oil spill cleanups on mudflats that it is aware of.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.5(d)	Please provide evidence demonstrating that any mudflat cleanup protocols and plans are adequate and represent best practices in the world.	Refer to response to City of Port Moody IR No. 2.3.05a.	Please see City's comments 3.5(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.5(e)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to a) to d) above.	Please see City's comments 3.5(a) to (d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments 3.5(a) to (d).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.6(a)	<p>Please provide a Marine Debris Field Response Plan in the Burrard Inlet and Metro Vancouver region.</p> <p>Specifying:</p> <ul style="list-style-type: none">• Detail of the plan, system, protocol, and implementation plans,• Details of any modeling on debris field distribution,• Identification of vulnerable areas,• Partners, contractors, and other stakeholders involved in the implementation,• Removal, recycling and disposal plans and procedures, and• Schedules for reassessments and updates of the Plan.	<p>The Intervenor's question cannot be answered in the manner asked. The essence of the reference cited is to test the development of a marine debris database through a PDA/GIS link. The data can then be analyzed to determine the MetOcean influences on marine debris. The application to oil spill response is peripheral. The dynamic nature of the shoreline does not lend itself to the advance development of a Marine Debris Field Response Plan either as an operational consideration or a pre-SCAT function. In the unlikely event of a spill, using ICS the Unified Command through the Environmental Unit will determine whether there is any value in monitoring non-oiled marine debris.</p> <p>Detailed plans are developed to address specific incident conditions and depend upon many variables that cannot be known in advance. These documents are produced at the time of an incident as part of the overall Incident Action Plan. The content and format of these specific action plans is largely driven by the Incident Command System (ICS) process.</p>	<p>The City disagrees with the response that the information related to the plan cannot be provided ahead of time. The possibility of marine debris from a tanker accident related to the proposed Project is not zero, just as the likelihood of oil spill is not zero. While a detailed implementation plan is not the item requested, the City expects that Trans Mountain would have details of an overarching Marine Debris Field Response Plan, which would identify the steps, procedures, and protocol for implementing marine debris response actions, as requested.</p> <p>Therefore, the City requires a complete and adequate response to the request.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information has been provided and Trans Mountain's response is full and adequate. As noted by the Board in Ruling No. 33, if an Intervenor disagrees with the answer, rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>
3.6(b)	<p>Please provide evidence demonstrating the accuracy and adequacy of the Marine Debris Field Response Plan.</p>	<p>Refer to response to City of Port Moody 2.3.06a.</p>	<p>See City's response 3.6(a)</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information has been provided and Trans Mountain's response is full and adequate. As noted by the Board in Ruling No. 33, if an Intervenor disagrees with the answer, rather than seeking to compel a further answer, the Intervenor may file</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>

				its own evidence in response or provide its views during final argument.	
3.6(c)	Please provide details on consultation and collaboration with municipalities, including the City of Port Moody, on the Plan	Refer to response to City of Port Moody 2.3.06a.	See City's response 3.6(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information has been provided and Trans Mountain's response is full and adequate. As noted by the Board in Ruling No. 33, if an Intervenor disagrees with the answer, rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.6(d)	Please provide rationale if any of the above cannot be provided.	Refer to response to City of Port Moody 2.3.06a.	See City's response 3.6(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information has been provided and Trans Mountain's response is full and adequate. As noted by the Board in Ruling No. 33, if an Intervenor disagrees with the answer, rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.6(d)(i)	If a Marine Debris Response Plan does not currently exist, please indicate Trans Mountain's commitment and plans for resource dedication and funding for the establishment of such a plan before the proposed Project is operational should the Project be approved.	<i>Not directly referenced.</i>	See City's response 3.6(a)	<p>These documents are produced at the time of an incident as part of the overall Incident Action Plan. The content and format of these specific action plans is largely driven by the Incident Command System (ICS) process.</p> <p>Trans Mountain believes sufficient resources are available to develop these plans in the</p>	Based on the response provided, the City understands that Trans Mountain has not and will not develop a Marine Debris Response Plan to deal with potential debris resulting from any incidents (including but not limited to tanker collisions and oil spills) related to the proposed Project, nor commit and plan for resource dedication and funding for the establishment of such a plan before the proposed Project is operational should the Project be approved.

				event of an incident and therefore no further resource dedication commitment or funding is required by Trans Mountain.	Please confirm the City's understanding, as stated above, is correct.
3.6(d)(ii)	If no plan for the establishment and implementation of a Marine Debris Response Plan is available for the Burrard Inlet, please provide rationale and justification.	<i>Not directly referenced.</i>	See City's response 3.6(a)	<p>Trans Mountain does not consider it necessary for the Project to develop a Marine Debris Response Plan. This type of plan is not comparable with a spill response plan and is not required for the NEB to assess the Project.</p> <p>Marine debris may accumulate in parts of the coast, over time as a result of human or environmental activity on the oceans and on land near oceans; whereas an oil spill is a result of an accident typically requiring urgent response in order to safeguard environmentally valuable resources.</p> <p>Oil spills are therefore required to be dealt with on a priority basis by the responsible party.</p> <p>Marine debris, on the other hand, is accumulated rubbish and should coastal authorities and communities deem it necessary to clean up shorelines, typically its handled by volunteer drives (e.g. Great Canadian Shoreline Cleanup)</p>	Please see City's response on 3.6(d)(i).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.7(a)	Please provide risk assessments on the evaporation of condensate, which is known to be highly volatile product, poses risks to first responders and impacts fire response.	<p>Two human health risk assessments (HHRAs) were conducted to evaluate the potential human health effects that people could experience <i>via</i> short-term inhalation under a set of simulated and unmitigated spill scenarios involving different-sized spills (<i>i.e.</i> credible worst-case and smaller-sized spill scenarios). The HHRA of Facility and Marine Spill Scenarios Technical Report (Intrinsik Environmental Sciences Inc. [Intrinsik] June 2014) (Filing IDs A3Y1E9, A3Y1F0, A3Y1F1 and A3Y1F2) evaluated a set of simulated and unmitigated spill scenarios resulting from an incident while loading a tanker at berth at the Westridge Marine Terminal and a second set resulting from the grounding of a laden tanker on Arachne Reef. The HHRA of Pipeline Spill Scenarios Technical Report (Intrinsik June 2014) (Filing ID A3X6U1) focused on a set of simulated and unmitigated spill scenarios resulting from third-party damage to a pipeline segment within Metro Vancouver. In each assessment, Cold Lake Winter Blend (CLWB) diluted bitumen (or dilbit) was selected as a representative product for evaluation. The fact that the diluent in CLWB is a liquid condensate that is rich in light-end hydrocarbons, which are volatile or semi-volatile in nature, formed part of the rationale for its selection as the representative product to be evaluated.</p> <p>The focus of each HHRA was on determining the nature and extent of the potential health effects that could occur among people from short-term inhalation exposure to the chemical vapours released from the surface of the spilled oil during the early stages of the oil spill, before the</p>	<p>The response noted assessments completed with a focus on “short-term inhalation exposure to the chemical vapours related from the surface of the spilled oil during the early stages of the oil spill, before the arrival of first responders,” this is not information that the City requested.</p> <p>Additionally, the response provided to not clarify whether or not condensate was incorporated as part of all of Trans Mountain's Human Health Risk Assessments. Rather, the request was specifically focusing on the effects of long-term vapour releases on the risks of first responders and impacts to fire response. As such, the City does not find that the initial response to be adequate. The City requires a complete and adequate response by Trans Mountain on the request.</p>	<p>The prospect for and extent to which first responders might be exposed to hydrocarbon and other chemical vapours released from the surface of the spilled oil in the unlikely event of an oil spill on either a short-term or long-term basis is expected to be low. The rationale is provided below.</p> <p>First, these personnel will be trained in emergency response, will be aware of the need to avoid exposure to the spilled oil itself as well as any chemicals released from the spilled oil, including any chemical vapours, and will be equipped with personal protective equipment to limit any exposure to the vapours.</p> <p>Second, air quality monitoring will be performed in the area to alert personnel to the presence of any vapours and the need to take appropriate precautions to avoid exposure. Access to the area would be controlled based on the monitoring results, with access allowed only if worker health and safety is not threatened.</p> <p>Lastly, based on the physico-chemical properties, notably those properties, such as vapour pressure, that determine the chemicals' tendency to partition into air, it is reasonable to expect that the chemical vapours originating from the spilled oil would disperse to below the health based comparison benchmarks used to assess the potential health risks involved within hours to days of the spill event, depending on the size and nature of the spill, thereby limiting any opportunity for exposure of the first responders to the chemical vapours on a long-term basis. The above will apply regardless of the source(s) of the</p>	<p>The response provided does not address the original request and contains only statements of anticipated risks to first responders. The response lacks the requested <u>risk assessment</u> (not merely statements) of the impacts of evaporation of condensate to first responders <u>and</u> fire response.</p> <p>The City requires a full and adequate response to its original information request.</p>

		<p>arrival of first responders and the implementation of these emergency and spill response measures. Examination of the findings of each HHRA indicates that in each of the simulated spill scenarios, exposure to the maximum predicted chemical vapour concentrations would not be expected to result in health effects other than mild, transient sensory and/or non-sensory effects. Examples of these effects could include: discomfort, irritability, mild irritation of the eyes, nose and/or throat, mild cough, and symptoms consistent with nominal central nervous system involvement such as mild headache, light headedness, minor vertigo, dizziness, and/or nausea. These effects would likely resolve quickly upon cessation of exposure, with no lingering after-effects. Odours could be apparent to some individuals, especially those with a keen sense of smell, and could contribute to added discomfort and irritability among these people.</p> <p>The absence of any serious adverse health effects from short-term inhalation of the chemical vapours released from the surface of the spilled oil during the early stages of any of the simulated and unmitigated spill scenarios applies to people in general, including the general public as well as first responders arriving on scene. It is important to note, however, that first responders could remain on scene for some time while implementing emergency and spill response measures. In order to reduce the prospect of direct physical contact with the oil and/or more prolonged exposure to the vapours spill response personnel will be trained in emergency preparedness and response, equipped with appropriate personal protective equipment and will be aware of the need to take appropriate precautions to limit exposure to any chemical vapours that might be present. These</p>		<p>vapours, be it the crude oil or condensate.</p>	
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		<p>measures would act to limit any chemical exposures that might be received by first responders and other spill response personnel.</p> <p>A comprehensive overview of the measures to prevent oil spills, risks related to oil spills, emergency response in the event of a spill, and the fate and behaviour of spills in both fresh and marine water was provided in Volume 7 of the Application. Specifically, the risks of fires resulting from a product release within facilities were described in Section 3.2.2 of Volume 7, Risk Assessment and Management of Pipeline and Facility Leaks (Filing ID A3S4V5) and these risks were considered for emergency planning purposes. Design criteria, fire detection and suppression systems, operations management, and emergency response planning will be utilized to minimize these risks. Furthermore, KMC has ongoing programs to provide Community Awareness Emergency Response sessions to first responders along the pipeline system. These sessions provide information with regard to the type and properties of petroleum transported through the pipeline and how to respond safely. Additionally, it should be noted that in any spill scenario vapour evolution is always an important consideration for first responders that must be monitored and addressed when executing response actions, particularly during the early stages of response when there might be potential for ignition. It is standard operating procedure for oil spill first responders to conduct continuous atmospheric gas monitoring until advised that the potential for hazardous atmospheric conditions can no longer exist. As a practical matter, low flashpoint is not unique to dilbit products and first responders already manage combustible gas situations during liquid fuel spills.</p>			
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3.7(b)	<p>Please characterize the potential oil spill response delays, including worst-case and most likely-case, as a result of condensate evaporation.</p>	<p>The intervenor’s question cannot be answered in the manner asked due to the unlimited number of variables that could potentially affect evaporation on any given day. Trans Mountain, however, offers the following response to your question as it applies to WCMRC, the certified Response Organization for the navigable waters of BC.</p> <p>Response Organizations such as WCMRC routinely manage evaporating product situations in every oil spill to which they respond. Before entering an oil spill site, WCMRC personnel follow a site characterization procedure outlined in WCMRC’s Technical Manual, <i>Safety Tactics</i>. Site Characterization is a three-step process that includes:</p> <p>1) Preliminary evaluation using a pre-entry survey 2) Initial site characterization 3) Ongoing site characterization and monitoring</p> <p>The initial detail associated with vapour monitoring adheres to the following practices:</p> <ul style="list-style-type: none">• Don Level-C PPE with air-purifying respirator• Approach from upwind. Assure the location is safe by measuring air-contaminant levels as close to the sea/land’s surface as possible. The Site Safety Watch (SSW) will slowly move closer to the spill while continuous monitoring takes place. If at any time the levels being monitored rise above the acceptable limits the SSW will back out immediately.	<p>The response did not provide the information requested.</p> <p>The City requires confirmation from Trans Mountain on the City’s understanding that condensate evaporation may cause delays to oil spill response and recovery actions, and that the potential length of such delays cannot be predetermined or estimated for a worse-case and most likely-case oil spill scenario.</p>	<p>Condensate is a colorless low-density liquid hydrocarbon; it rapidly volatilizes into the atmosphere and disperses in the water column. It is a flammable liquid, as a virgin feedstock, whose vapors can migrate for some distance and flashback from a source of ignition.</p> <p>Trans Mountain handles no virgin condensate at the Westridge Marine Terminal (WMT). Condensate may be used as the diluent component for the diluted bitumen received by Trans Mountain and handled at the WMT. Diluted bitumen is not a simple two-phase mixture of bitumen and condensate, but is instead a new, cohesive, blended product. When spilled into water, lighter hydrocarbon fractions of the entire blend would begin to evaporate. As lighter fractions evaporate, the viscosity of the weathered dilbit would increase, and evaporation of remaining lighter fractions would be progressively inhibited. As with any liquid fuel spill, a response could be delayed by a variety of environmental conditions that temporarily prolong the combustibility of the spilled product. In those situations responders will withdraw to a safe distance while continuing to perform atmospheric monitoring. During that time, alternative countermeasures, as discussed in Port Moody IR No. 2.3.07(c) (Filing ID: A4H8G7), will be considered.</p>	<p>The response did not provide the information requested. The City requested information on response delays, including most likely-case and worst-case scenarios, as a result of the presence of condensate evaporation. This information was not provided.</p> <p>Further, the response notes another response previously submitted by Trans Mountain on the City’s IR No.2, request 3.7(c), which is not adequately addressed (see below). The City requires a full and adequate response to request 3.7(c).</p>

		<ul style="list-style-type: none">• The SSW or other trained personnel will confirm conditions are within acceptable limits using the Gas Detector to test for LEL, O2, CO, and H2S. The PID monitor is used to test for Benzene.• Establish safe breathing zones and appropriate PPE levels and communicate information to on-scene responders.• Report Results to the WCMRC-Incident Command Post for dissemination to the Operations Section Chief and Safety Officer.• Continue ongoing site monitoring using both gas meters and alert personnel of changing conditions. The monitoring devices remain active until the Safety Officer directs otherwise <p>The response to City of Port Moody IR No. 2.3.07c discusses alternative countermeasure that can be executed when conditions temporarily limit on-water response operations.</p>			
3.7(c)	Please identify alternative measures to protect vulnerable areas and prevent spread of oil when response delays occur as a result of condensate evaporation.	<p>The intervenor’s question is unclear inasmuch as Response Organizations such as WCMRC routinely manage evaporating product situations in every oil spill to which they respond. When conditions temporarily limit on-water response operations, the Unified Command will engage resources from other key areas to maintain positive momentum on the spill cleanup, for example:</p> <ul style="list-style-type: none">• Trajectory analysis and spill modeling can be used to anticipate the spreading of the oil;• Overflight information, generated by oil slick sensors aboard the regionally dedicated aircraft operated by Transport Canada’s National Aerial Surveillance Program (NASP), can be used to identify the locations of significant oiling and to aid in the selection of appropriate response strategies;• Protective booms can be deployed at other accessible locations to reduce or mitigate the impact of oil forecast to reach those locations;	<p>Response does not address the request of the City. The City is requesting information on measures to protect vulnerable areas from the <u>spread</u> of oil when response delays occur, rather than the management of evaporating product situations.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<ul style="list-style-type: none">• Shoreline response personnel can be dispatched along with supplies and resources from other locations; and• Optional response tactics such as the use of dispersants and in-situ burning opportunities can be explored with regulators.			
3.7(d)	If any of the above cannot be provided, please provide rationale.	Refer to the responses to a) to c) above.	Please see City’s comments 3.7(a) to (c).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comments 3.7(a) to (c).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.8(a)(i)	Please compare and provide an assessment of how the above procedures were implemented in the 2007 Burnaby oil spill	<i>Not directly referenced.</i>	No response was provided. The City requests a demonstration on how the Net Environmental Benefit Analysis is applied in actual oil spill response scenario and requires Trans Mountain to provide further details based on the 2007 Burnaby oil spill.	In accordance with Board Ruling No. 33 (Filing ID A63066), the request is for new information. Seeking more specific information or more details in the motion to compel full and adequate responses is essentially a request for new information and is not permitted under Ruling No. 33. Rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.8(b)	Please provide details on whether the above procedures/policies/standards will be applicable if the Responsible Party is not Trans Mountain and/or if the Response Agency is not WCMRC.	<p>The procedures/policies/standards discussed in the preceding response to City of Port Moody IR No. 2.3.08a are standard spill response practices the world over.</p> <p>As a condition of operating in Canadian waters, the Canadian Shipping Act 2001 (CSA) requires that all tank vessels and all Oil Handling Facilities (OHF) have a contractual arrangement with certified oil spill Response Organizations (RO) that maintain a prescribed level of preparedness to respond to a spill on the polluter's behalf, whatever the cause of the incident. WCMRC is the certified response organization for the navigable waters of British Columbia. WCMRC also receives responder immunity through the CSA, something that is not available to other non-certified responders unless they are working under WCMRC. That said, the Responsible Party can contract for other resources but they would be monitored</p>	<p>Based on the response provided, the City understands that the above procedures/policies/standards will be applicable for any Responsible Party (regardless of whether or not they are Trans Mountain) and any Response Agency (regardless of whether or not they are WCMRC).</p> <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>closely by CCG, as the federal monitoring officer. The incident commander, under oversight of the CCG, may utilize other service providers to deal with additional aspects of the incident, such as towing, salvage and marine firefighting.</p>			
3.8(c)	<p>Please provide an assessment of the long term environmental and socio-economic impacts of the 2007 spill, including the impacts from any remaining oil that was not recovered.</p>	<p>Although the information requested is not within the scope of this proceeding and not relevant to the National Energy Board's (NEB) List of Issues, Trans Mountain Pipeline ULC (Trans Mountain) offers the following response to your question.</p> <p>Following the 2007 spill, a long-term monitoring program was implemented to assess long-term effects to sediments and biota in Burrard Inlet. This program commenced in 2008 and continued until all recovery endpoints had been met in 2013. Study components of the program included but were not limited to: sediment, mussels, clams, fucus and crabs. Recovery endpoints were derived in consultation with all stakeholders (including government agencies), and were based on best available comparisons to pre-incident conditions. When the monitoring program was completed in 2013, all study components of the monitoring program related to the released oil had met their environmental recovery endpoints, and no further monitoring was recommended. Based on feedback received to date, there is no indication of long term socio-economic effects resulting from the released oil. By meeting acceptable environmental recovery endpoints, there should be no interference with social or economic uses of Burrard Inlet.</p> <p>The environmental effects of the July 2007 Westridge spill on the marine environment are assessed in detail in the <i>Environmental Impact Statement – Divisions B and D: Sewers, Foreshore and Marine Environment – Westridge Hydrocarbon Accidental Release</i> (Stantec Consulting Ltd. 2010). This report was submitted to the NEB on February 10, 2014 and can be found under Filings ID A4H6G4, A4H6G5, A4H6G6, A4H6G7, A4H6G8, A4H6G9, A4H6H0, A4H6H1, A4H6H2, A4H6H3, A4H6H4, and A4H6H5. Annual reports detailing the results of the long-term monitoring</p>	<p>The response is unclear.</p> <p>Based on the response provided, it is the City's understanding that it is Trans Mountain's assessment that there is no long-term environmental and socio-impacts because the environmental recovery endpoints were met.</p> <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	<p>Trans Mountain Pipeline ULC confirms the City's understanding as stated accurately reflects Trans Mountain's response.</p>	<p>No further information is required.</p>

		program can be found under the following Filing IDs: 2008: A4H6H7; 2009: A4H6H8 ; 2010: A4H6H9; 2011: A4H6I0; 2012: A4H6I1; 2013: A4H6I2. For a summary of the environmental effects of the 2007 spill, refer to City of Port Moody IR No. 2.3.33a – Attachment 1. For a more detailed assessment of the short and long-term effects on the marine environment, refer to the aforementioned reports.			
3.8(d)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to a) to c) above.	Please see City’s response for 3.8(a)(i) to (c).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s response for 3.8(a)(i) to (b).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.9(a)	Please provide a table with all recommendations included in the report referenced above and provide details on whether or not each recommendation has been satisfied, as well as how they have been satisfied.	Trans Mountain believes that it has provided sufficient information to address the issues identified in the National Energy Board's List of Issues for the Trans Mountain Expansion Project. The aforementioned table will not be provided, however Trans Mountain encourages the intervenor to approach the Pacific Pilotage Authority (PPA) for this information. PPA can be contact at info@ppa.gc.ca and: Pacific Pilotage Authority Canada 1000-1130 West Pender Street Vancouver, B.C. Canada V6E 4A4	The City expects that, as part of Trans Mountain's assessment of risk and safety, Trans Mountain would have use these information as part of its analysis, as well as an assurance that all aspects related to vessel safety represent best industry practices.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.9(a)(i)	Please add to the abovementioned table all recommendations to improve vessel safety and mitigate risks of vessel collision on the West Coast that have been suggested through any other study, please specify the source and year of the studies/reports, as well as whether or not the recommendations have been satisfied.	Please note that Trans Mountain has proposed a number of additional measures to improve marine safety and reduce risk of oil spills. The TERMPOL Review Committee has reviewed the proposed measures and provided a report, the <i>TERMPOL Review Process Report on the Trans Mountain Expansion Project</i> (Filing ID A4F8Z4)	Please see City's comments on 3.9(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.9(a)(ii)	Please provide details on any recommendations that have not yet been fully satisfied and provide rationale why.	Refer to a.i) above.	Please see City's comments on 3.9(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.9(b)	Please provide details on current standards in reporting near misses. A "near-miss" is defined as an accident in which the pilot, master, or other person in charge of navigating a vessel successfully takes action of a non-	The following definitions apply to marine occurrences that would be reported pursuant to the <i>Canadian Transportation Accident Investigation and Safety Board Act</i> and the associated regulations.	The response quotes a "paragraph a) above" that was not provided as part of the response. Additionally, the response did not provide details on other elements of reporting standards, such as: <ul style="list-style-type: none">• How are reports summarized and	Reportable Marine Accident An accident resulting directly from the operation of a ship other than a pleasure craft, where 1. a person sustains a serious injury or	The response does not provide the information requested. The City is not asking for a definition on what constitutes a "reportable marine accident". The City is requesting information on reporting standards,

	<p>routine nature to avoid collision with another ship, structure, or aid to navigation, or grounding of the vessel, or damage to the environment</p>	<p>Marine Occurrence</p> <p>1. any accident or incident associated with the operation of a ship and</p> <p>2. any situation or condition that the Board has reasonable grounds to believe could, if left unattended, induce an accident or incident described in paragraph a) above.</p> <p>Ship includes:</p> <p>1. every description of vessel, boat or craft designed, used or capable of being used solely or partly for marine navigation without regard to method or lack of propulsion, and</p> <p>2. a dynamically supported craft.</p> <p>In the region, reports are made to Canadian Coast Guard/Marine Communication and Traffic Services.</p>	<p>made public?</p> <ul style="list-style-type: none">• How does this reporting system contribute to remedial and continuous improvement measures? <p>The City requires that the response provided by complete and adequate.</p>	<p>is killed as a result of</p> <p>1. being on board the ship or falling overboard from the ship, or</p> <p>2. coming into contact with any part of the ship or its contents, or</p> <p>2. the ship</p> <p>1. sinks, founders or capsizes,</p> <p>2. is involved in a collision (which includes collisions, strikings and contacts),</p> <p>3. sustains a fire or an explosion,</p> <p>4. goes aground,</p> <p>5. sustains damage that affects its seaworthiness or renders it unfit for its purpose, or</p> <p>6. is missing or abandoned.</p> <p>For statistical purposes, accidents defined in paragraph a) are classified as “Accidents Aboard Ship” and accidents defined in paragraph b) are classified as “Shipping Accidents.”</p>	<p>including but not limited to how reports are made public and contribute to assessments for implementing remedial and/or corrective action as future preventative measure. The City requires a full and adequate response to its information request.</p>
3.9(c)	<p>Please provide all records of near-misses documented since 1994 along the shipping route of vessels related to the proposed Project.</p>	<p>The information requested is not relevant to one or more of the issues identified in the National Energy Board’s List of Issues for the Trans Mountain Expansion Project.</p> <p>Please approach the Canadian Coast Guard or the Transportation Safety Board for the requested information. Trans Mountain has provided relevant and credible casualty data in Technical Report TR 06 TERMPOL 3.8, Volume 8C, Casualty Data Survey (DNV 2013) (Filing ID A3S4T1), as well as an assessment of the impact of increased traffic on recreational vessels in Burrard Inlet (see</p>	<p>The City expects that, as part of Trans Mountain’s assessment of risk and safety, Trans Mountain would have use these information as part of its analysis. The information requested is also an element that relates to NEB’s List of Issues, specifically:</p> <ul style="list-style-type: none">• The potential environmental and socio-economic effects of marine shipping activities that would result from the proposed project, including the potential effects of accidents or malfunctions that may occur; and• Contingency planning for spills, accidents or malfunctions, during construction and operation of the project.	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		Section 4.3.11 of Volume 8A, Filing ID A3S4Y3)			
3.9(d)(iv)	Please provide details of real time vessel traffic monitoring, specifying whether or not the real time monitoring system includes other users of the Burrard Inlet, including recreational boaters.	All vessels in Burrard Inlet, including recreational boaters, fitted with AIS can be monitored in real time.	The City requires confirmation of the understanding that not all users of the Burrard Inlet would be monitored, if they are not fitted with AIS. The City also request information on the percentage of recreational boaters that are fitted with AIS, as well as identification of other types of vessels that are often not fitted with AIS and their respective percentages.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required. Seeking more specific information or more details in the motion to compel full and adequate responses is essentially a request for new information and is not permitted under Ruling No. 33. Rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.	The City's information request sought for " <u>details of real time vessel traffic monitoring</u> ". The City's Motion clarified the sort of details that the City was originally asking in an effort to assist Trans Mountain in responding adequately to the City's request. Clarification within the City's Motion is not a new information request. The City requires a full and adequate response from Trans Mountain.
3.9(d)(iv)(i)	If recreational boats and/or other users of the Burrard Inlet are not monitored, please provide specific measures by which Trans Mountain and/or the industry have established to mitigate the risks of vessel collision or accidents with other users of the Burrard Inlet. Please provide evidenced-based support for the adequacy of such system.	<p>If recreational boats and/or other users of the Burrard Inlet are not monitored, please provide specific measures by which Trans Mountain and/or the industry have established to mitigate the risks of vessel collision or accidents with other users of the Burrard Inlet. Please provide evidenced-based support for the adequacy of such system.</p> <p>There is a long history of safe marine transportation within Burrard Inlet and similarly there is a long history of recreational vessel use in this area. All mariners are expected to adhere to established rules for ships and boats that ensure safety of all mariners. The safety regime in place today for both the existing tanker traffic and the operation of the Westridge terminal has been developed and continually improved</p>	<p>The City understands that the mitigation measures to be implemented by Trans Mountain and/or the industry include:</p> <ul style="list-style-type: none"> • Pilots on board; • Tethered tugs; • Navigation marks and lights; and, • Enhanced education campaign for small vessel operators. <p>The City requests that Trans Mountain provide confirmation of this understanding.</p> <p>Additionally, the request includes an evidence-based support for the adequacy of the above systems for mitigating the risks of vessel collision or accidents with other users of the Burrard Inlet, which was not provided in the original response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>since the terminal entered service in 1953. The regime is based on regulatory requirements, local experience and international best practices. It is comprehensive, well established, and has proven to be effective</p> <p>Recreational boating is very popular on the coast of British Columbia, especially the South Coast and there are a large number of licensed pleasure crafts and pleasure craft operators. However there is a seasonal pattern to the use of these vessels and on average recreation boats spend a considerable time at berth.</p> <p>On average about 500 incidents are reported annually to Vancouver Marine Communications and Traffic Services (MCTS) and the majority of these incidents relate solely to recreational vessels. Based upon records held by the Canadian Coast Guard, the probability of collision between a project tanker and recreational boats is very low.</p> <p>Transport Canada, Office of Boating Safety (OBS), is responsible for the development and implementation of pleasure craft regulations, standards, policies, enforcement and technical services pertaining to recreation boating. The OBS provides:</p> <ul style="list-style-type: none">• regulatory training to enforcement agencies (e.g. RCMP, Conversation Officers, etc.);• advice to enforcement officers;• attends and/or leads regional enforcement working group meetings; and• follows up on close quarters situation or any incident upon request by the			
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		<p>enforcement agencies on a case by case basis.</p> <p>The OBS also trains other stakeholders and partners in performing courtesy checks on safety equipment. Within the port’s jurisdiction, Port Metro Vancouver’s (PMV) role regarding the of recreational vessels is limited to ensuring that navigation and environment are not being impeded or impacted. PMV does not monitor the movements of most pleasure craft, but if a boater is causing a navigational hazard, the PMV patrol boat will attend and address the issue. Marine units of the RCMP and Vancouver Police Department enforce local laws pertaining to boating safety and other infractions like alcohol related issues.</p> <p>The most challenging part of a tanker’s sailing route from Westridge is the start of its journey from the terminal through the Second and First Narrows in the Vancouver harbour area. The movement of large ships (including tankers) is strictly regulated and there are speed limits as well as pilots on board and tethered tugs that ensure these vessels are moved through the harbour with a high degree of control. This ensures that the probability of collision or wake or propeller wash damage is mitigated.</p> <p>Several recommendations were reviewed by the Termpol Review Committee and the majority have been accepted, which will further enhance safety of all mariners in Burrard Inlet. This includes demarcation of a shipping route between the Second Narrows and Port Moody</p>			
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		<p>giving a wide berth to the expanded Westridge Marine Terminal. The dock complex itself will be provided with navigation marks and lights and the oil spill booms around the vessels will also be marked in a similar fashion. This will ensure that all marine users will be able to identify the area during day or night and keep clear. In addition, Trans Mountain has committed support for an enhanced education campaign for small vessel operators about safe boating practices that will be led by the Pacific Pilotage Authority (PPA).</p> <p>A qualitative risk assessment did not identify any areas of significant risk to marine recreational vessels as a result of TMEP. management and monitoring</p>			
3.9(d)(iv)(ii)	Please provide justification if no measures is taken to mitigate the risk of vessel collision and accidents with other users of the Burrard Inlet	Refer to response d.iv.i. above.	Please refer to City's comments on (d)(iv)(i).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.9(e)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to a) to d) above.	Please refer to City's comments on 3.9(a) to (d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Please refer to City's comments on 3.9(a) to (d).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.10(a)	Please provide any regulation regarding drug and alcohol consumption on marine oil tankers (Canadian and US); outlining any drug/alcohol policies/legislations/regulations applicable along the entire shipping route of Trans Mountain products, if any.	<p>U.S. Coast Guard drug and alcohol regulations are contained in Title 46 Code of Federal Regulations (CFR) Parts 4 and 16.</p> <p>Should an incident occur in Canada, or involve citizens of Canada, the Transportation Safety Board will investigate and if they deem it necessary, they may request for drug or alcohol testing.</p> <p>All tanker operators adhere to Oil Companies International Marine Forum (OCIMF) recommendations on Drug and Alcohol use and have incorporated the requirements into the ship’s safety management system. This is a requirement under Trans Mountain’s Tanker Acceptance Standards.</p>	The response provided only quotes certain regulations but does not provide the actual limits and regulations related to drug and alcohol consumption on marine oil tankers as requested. Such response places the onus for acquiring a complete and adequate response on Intervenor.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.10(b)	Please provide details of enforcement and monitoring measures for the aforementioned drug and alcohol consumption regulation, specifying: <ul style="list-style-type: none">• The frequency of testing and monitoring on Canadian waters;• The enforcement agency;• The availability of equipment to monitor and enforce the aforementioned regulations (e.g. breathalyser, etc.)	<p>Refer to City of Port Moody 2.3.10a. As tankers trade internationally, the frequency and testing is not confined to any single country’s jurisdiction, but could typically follow the following schedule:</p> <ul style="list-style-type: none">• All ship staff are subject to drug and alcohol testing during scheduled annual physical examinations• The company has the right to request testing of any crew member if it is suspected that the crew member’s blood alcohol content exceeds 0.04%.• Third-party unannounced drug and alcohol testing are arranged so that:<ul style="list-style-type: none">o All crew members on board the vessel at the time of the scheduled test are tested.o Each vessel is scheduled for testing at least once per year.• Random breath alcohol tests using Draeger Alcotubes or other approved equipment are carried out amongst the staff onboard.	The response does not provide any information with regards to the enforcement of the regulations in relation to the request of 3.10(a). Additionally, the response provides no details on what “the company” is and whether or not this includes all shipping companies related to the Project.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

3.10(c)	Please provide evidence-based assessments on the adequacy of drug and alcohol consumption regulation and enforcement measures along the proposed marine shipping routes in eliminating the risk of vessel accidents as a result of human error and drug/alcohol consumption on board a tanker	Application of onboard Drug and Alcohol Policy that meets OCIMF recommendations is verified during vetting inspections by accredited Ship Inspection Report Programme (SiRe) inspectors. Records of inspections are available in the SiRe database and accessible to Trans Mountain for review during initial screening of the vessel as part of the Tanker Acceptance Criteria	The response provided no information, assessment, or comment on whether or not the drug and alcohol consumption regulation and enforcement measures are adequate in eliminating the risk of vessel accidents as a result of human error and drug/alcohol consumption on board a tanker, as requested.	In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information is overly broad in scope. The IR process is designed to allow Intervenor to probe and ask questions about evidence that has been filed. The IR process is not meant to be an opportunity to engage in what the Board described in Ruling No. 33 as a “fishing expedition” that could unfairly burden the applicant	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.10(d)	Please provide any Trans Mountain policies, requirements and/or agreements with ship owners for zero-alcohol and drug consumption allowance for crews of marine vessels shipping Trans Mountain products, if any.	Trans Mountain as part of its Tanker Acceptance Standards requires all vessels enforce a Drug & Alcohol Policy that meets OCIMF recommendations, which require the operator, as part of Company policy, control onboard alcohol distribution and monitor its consumption. This policy has to support the principle that officers and ratings should not be impaired by alcohol when performing scheduled duties. Officers and ratings are required to observe abstinence from alcohol for several hours prior to scheduled watch keeping duty or work periods.	The response states that Trans Mountain adopted the Drug & Alcohol Policy that meets the OCIMP recommendations but provided no specific details on the policy apart from “principle” and general comments on “control”. The City requests that Trans Mountain provide a copy of its Drug & Alcohol Policy as requested.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.10(d)(i)	Please provide rationale if Trans Mountain has no plans for contracting only to ship owners who enforce a zero-alcohol and drug consumption allowance for crews of marine vessels	Not applicable in light of (d) above.	Please see City’s comments on 3.9(d). Please note that zero-alcohol and drug consumption allowance is different than	In accordance with Board Ruling No. 33 (Filing ID	Trans Mountain’s response does not address the City’s explanation for the inadequacy

	shipping its products to and from Metro Vancouver.		“abstinence from alcohol for several hours”.	A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.10(e)	If no regulation and/or policies are enforced, please provide an evidence-based assessment on the risk of vessel collision along the shipping route of Trans Mountain products. Please specify the impacts of alcohol and drug consumption (at low, middle and high levels) on marine transportation safety based on evidences of all issues in past vessel transportation collisions around the world.	Not applicable in light of City of Port Moody IR No. 2.3.10d.	Please see City’s comments on 3.9(a) to (d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.10(f)	Please provide rationale if any of the above cannot be provided.	Trans Mountain believes it has sufficiently answered this information request.	Please see City’s comments on 3.9(a) to (e).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Please see City’s comments on 3.9(a) to (e).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.11(a)	<p>Please provide details of the existing real time monitoring systems for environmental conditions, specifying:</p> <ul style="list-style-type: none">• System technology and specifications, comparing with current and best technology available;• Communication system to ensure real time weather information are provided to crews of oil tankers;• Mechanisms and/or decision-making protocols to determine the safety of allowing tankers to traverse the Burrard Inlet; and• The responsible party for determining traverse safety on a tank per tank basis in the Burrard Inlet and the Strait of Georgia.	<p>Meteorological and oceanographic conditions relevant to the Vancouver harbour were filed in Section 2, Technical Report TR 8C 10 Supplemental TR S02, Volume 8C, Meteorological and Oceanographic Data (EBA 2013) (Filing ID A3S4U6). Monitoring stations are established by Environment Canada and records are maintained. Trans Mountain intends to establish a wind/weather station at Westridge as part of the new dock facility.</p> <p>All stakeholders engaged in directing vessels remain constantly aware of weather situations. For example, Port Metro Vancouver (PMV) uses Environment Canada forecasts as well as information from weather buoys in the Strait of Georgia. The vessels themselves monitor weather via Navtex broadcast, weather fax, VHF, and more, and are all fitted with wind speed measurement and display devices for real time weather.</p> <p>All movements of ships can only take place with pilot onboard and with the permission of the Canadian Coast Guard and PMV. The pilot/s onboard will take the final decision as to whether a movement should proceed, given a particular weather event.</p> <p>In its report, <i>TERMPOL Review Process Report on the Trans Mountain Expansion Project</i>, the TERMPOL Review Committee reviewed all submitted information (including weather conditions), and stated</p>	<p>The information requested was not provided. Specifically, there was no:</p> <ul style="list-style-type: none">• Comparison of real time monitoring specifications and best technology available;• Information provided on communication systems;• Mechanisms and/or decision-making protocols to determine the safety of allowing tankers to traverse the Burrard Inlet; and• Identification of the responsible party who determines traverse safety.	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required. Environmental monitoring systems are under the jurisdiction of government agencies such as Environment Canada. Environment Canada is a participating intervenor as well as a member of the TERMPOL Review Committee. Trans Mountain notes that the intervenor will have an opportunity to ask other intervenors questions later in the NEB’s process and suggests this question might be posed to Environment Canada at that time.</p>	<p>The requested information is not proprietary information that is not accessible by Trans Mountain. In particular, these information should be necessary details already known by Trans Mountain in order to assess traverse and docking safety in the Burrard Inlet and the Strait of Georgia. The City requires a full and adequate response to its information requests.</p>

		<p>in Finding 13 that:</p> <p>“Because weather conditions along the route have never caused a pilot to abort a transit, it is the view of the TRC that weather related restrictions beyond existing requirements are not necessary at this time”</p>			
3.11(b)	<p>Please provide details of any marine oil spill emergency response exercises under extreme weather events (i.e., under the most extreme weather event in the last 10 years of Metro Vancouver, such as the Hanukkah Eve Wind Storm of 2006); specifying:</p> <ul style="list-style-type: none"> • Capabilities of helicopters, tugs, etc. in the response; • Evacuation efficiency and impacts under the extreme weather events; and • Impacts to response capabilities under a chain of events, such as further emergencies within community caused by the extreme event and unrelated to the marine oil spill. 	<p>On water oil spill exercises are typically not conducted during extreme weather conditions because it would be irresponsible to put personnel at risk of injury for an exercise. Extreme weather will impact recovery efforts and this matter is well described in NEB IR No. 1.65a, 1.65b and 1.65c (Filing ID A3W9H8). It is worth noting the relative infrequency of extreme weather juxtaposed to the already low probability of a spill event in the region.</p>	<p>The City requests information on any marine oil spill emergency response exercises – this is not limited to on water oil spill exercises but can also include table top exercises, which the response fails to discuss.</p> <p>Please provide information on whether such exercises have been done at all, whichever the method of delivery has been used, as well as the exercises’ results with relation to the capabilities of response equipments (e.g., helicopters, tugs, etc.), the evacuation efficiency and impacts, as well as impacts to response capabilities under a chain of events, under extreme weather conditions.</p> <p>The response was also provided not in accordance to Procedural Direction No.9, which states that “Trans Mountain must provide a full response to each IR; not merely cross-reference a response to a similar question asked in January 2015 by the Board or an Intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document.”</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>
3.11(b)(i)	<p>If such exercise has not been performed in the past, please indicate plans from either WCMRC or other agencies for performing such exercises.</p>	<p><i>Not directly references.</i></p>	<p>If no such exercise has been done, please clarify whether there are any plans to perform such exercise.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

3.11(c)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to a) to b) above.	Please see City’s comments on 3.11(a) and (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Please see City’s comments on 3.11(a) and (b).
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IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.12(a)	Please provide a matrix illustrating the optimal oil recovery technology and measures under a low volume (5,000 barrels) vs. high volume (100,000 barrels) spill scenario in the marine, intertidal, shoreline, beach and mudflat environments.	<p>Trans Mountain refers the Intervenor to the following response which address</p> <p>Information Requests:</p> <ul style="list-style-type: none">• City of Port Moody IR No. 2.3.04e – Credible worst-case scenario and mitigation• City of Port Moody IR No. 2.3.04d – Shoreline cleanup• City of Port Moody IR No. 2.3.05a – Cleanup on mudflat environments• City of Port Moody IR No. 2.3.27a – Response delays & scenarios	The response referred the City to responses that do not directly relate to the request. Trans Mountain also provides no rationale for evading the request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.12(a)(i)	Please indicate the anticipated effectiveness of the identified optimal technology/measures in each scenario, specifying the expected percentage recovery of total volume released in 1-week, 1-month, 3-months, and 6-months time span. The assessment provided should be realistic and must take into account weathering effects of the products.	Not directly referenced.	No response was provided. The City requires a full and adequate response.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.12(b)	Please provide evidence that the type of equipment/technology selected are proven to be effective and the optimal method for the oil spill scenario identified in (a).	Refer to the response to City of Port Moody IR No. 2.3.12a.	Please see City's comments on 3.12(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

3.12(c)	Please provide rationale if the any of the above cannot be provided	Refer to the response to City of Port Moody IR No. 2.3.12a.	Please see City’s comments on 3.12(a) to (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comments on 3.12(a) to (b).
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IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.13(a)	Please provide a comprehensive assessment of the toxicity impacts, specifically embryo-toxicity and photo-enhanced-toxicity, on organisms in the marine and foreshore ecosystem of the Burrard Inlet and the Strait of Georgia from spills of every type of products and combination thereof, that would be transported out of Westridge Terminal if the proposed Project is approved.	<p>For reasons described in Section 4.4 of Technical Report 7-2 of Volume 7 (Stantec Consulting Ltd. December 2013, Ecological Risk Assessment of Westridge Marine Terminal Spills, Filing ID A3S4X1) and Section 4.5 of the Ecological Risk Assessment of Marine Transportation Spills (Technical Report 8B-7 of Volume 8B, Stantec Consulting Ltd. December 2013, Filing ID A3S4K7), Cold Lake Winter Blend (CLWB) was selected as the representative crude oil product for ecological risk assessment (ERA) evaluations of credible worst case and smaller marine spills. A representative crude oil product was selected because evaluation of every type of product and combination thereof that could be transported out of Westridge Marine Terminal for the Project was concluded to be impractical. While the behavior of different types of oil could vary in the unlikely event of a credible worst case oil spill, the conclusions of the ecological risk assessment are unlikely to be materially affected. Additional work to evaluate the potential effects of other products or combinations is not contemplated, so the following information summarizes information relevant to CLWB.</p> <p>The ERA technical studies referenced above evaluate potential risk to marine fish and supporting habitats. These risks are ranked according to habitat type, with the highest (most sensitive) ranking being applied to shallow and near-shore habitats. This is because acute effects of spilled crude oil on fish and marine invertebrates are rarely observed following crude oil spills, except in situations where crude oil is confined and dispersed into shallow water, such as may occur if crude oil is driven onto a shoreline or into a confined bay. The role of mono-aromatic hydrocarbons and polycyclic aromatic hydrocarbons (PAHs) in toxicity to fish is identified in Section 5.3.2 in each of the two referenced reports.</p> <p>Two major mechanisms of toxicity to marine fish were identified in the stochastic risk assessment studies (although it was noted that more specific mechanisms may also exist). These include:</p> <p>1) Non-polar narcosis (narcosis), whereby exposure to and accumulation of dissolved hydrocarbons from the water column causes interference with intracellular functioning at a target lipid site, potentially causing</p>	<p>Based on the response provided, the City understands the following:</p> <ul style="list-style-type: none">• It is Trans Mountain's assessment that the testing of more than a single selected product related to the proposed Project is impractical and too onerous for the proposed Project, despite the proposal's size and potential impacts.• It is Trans Mountain's assessment that other methods of exposure and impacts related to an oil spill, beyond the selects ones assessed in the application, on marine and foreshore organisms, aquatic, terrestrial and avian life, exist.• It is Trans Mountain's assessment that the aforementioned un-assessed methods of exposure and impacts to the environment are negligible, though there are no comprehensive studies generated. <p>Please confirm the City's understanding as articulated above and that this</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>death. Salmonid fish are sensitive to the narcosis pathway, and small fish are more sensitive than large fish.</p> <p>2) Blue sac disease (BSD), whereby exposure of freshly fertilized fish eggs to dissolved 3- and 4-ring PAH compounds may result in a syndrome of cardiac, craniofacial, and/or spinal deformity and death in developing embryos. Sensitivity to BSD is greatest in newly fertilized eggs, and decreases with the hardening of the egg membrane, and with increasing developmental stage. Embryos of herring and salmon species are among those more sensitive to BSD.</p> <p>Trans Mountain acknowledges that under certain circumstances, the toxicity of some PAH compounds within biological tissues can be enhanced by a process identified as phototoxicity, which is caused by ultraviolet light radiation causing photoactivation of certain PAH substances. Current models (<i>e.g.</i>, Sellin Jeffries <i>et al.</i> 2013) identify pyrenes, benzo(g,h,i)perylene, anthracenes, benzo(a)anthracene and chrysenes as having the greatest relative photodynamic activity (<i>i.e.</i>, potential to cause phototoxicity). For phototoxicity to occur, several conditions must be met, chiefly:</p> <ul style="list-style-type: none">• Phototoxicity affects primarily small fish and invertebrates, or transparent life stages of fish and invertebrates, in that ultraviolet (UV) light must penetrate tissues sufficiently to cause photoactivation of PAH compounds within the tissues. Pigmentation blocks light transmission, and mitigates potential toxicity.• PAH compounds having photodynamic activity must be dissolved in water where such fish are present, at concentrations sufficient to be bioaccumulated in biological tissues to levels sufficient to cause phototoxicity, if subsequently exposed to sufficient UV light. Fish and some invertebrates are also capable of excreting and metabolizing PAH compounds <p>The intensity of UV light in the water column where the fish are located must be of sufficient intensity and duration to cause photoactivation of the PAH molecules within the fish tissues, leading to toxicity and/or death of the fish. Light intensities under cloudy conditions may be insufficient to activate the tissue PAH residues. At low angles of incidence, light may reflect from the water surface instead of penetrating. Light intensity in the water column may also be mitigated by suspended sediment, high</p>	<p>understanding is the basis of Trans Mountain’s rationale for not providing the information requested in the original request of 3.13(a).</p>		
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		<p>concentrations of dissolved organic matter, or the presence of seaweeds or kelp. Marine organisms may also migrate vertically or horizontally in the water column to avoid areas of high light intensity.</p> <p>Phototoxicity is therefore a complex phenomenon, involving interactions between chemical concentrations, light intensity, and duration of exposure within fish tissues.</p> <p>The referenced paper by Barron and Ka’aihue (2001) is only one of several investigations into the risk posed by phototoxicity to fish and zooplankton subsequent to the Exxon Valdez oil spill. Others include Barron <i>et al.</i> (2003, 2005, 2008) and Sellin Jeffries <i>et al.</i> (2013). The works of Barron <i>et al.</i> identify the potential for Alaska north slope crude oil to cause phototoxicity to juvenile fish including Pacific herring. The more recent paper by Sellin Jeffries <i>et al.</i> (2013) goes further, estimating that while a potential for phototoxicity to juvenile Pacific herring existed in Prince William Sound following the Exxon Valdez oil spill, that potential was not likely to affect more than 1% of the population of juvenile Pacific herring either in 1989 (at the height of the oil spill).</p> <p>The two stochastic ERA studies referenced in this response ((the Ecological Risk Assessment of Westridge Marine Terminal Spills, Filing ID A3S4X1) and the Ecological Risk Assessment of Marine Transportation Spills (Filing ID A3S4K7) provide an assessment of the risk of adverse effects to marine fish and supporting habitat as a result of hydrocarbon exposure resulting from hypothetical spills in Burrard Inlet and the Strait of Georgia, as requested. While Trans Mountain acknowledges the existence of phototoxicity as a mechanism of toxicity, it does not believe that it would be a primary cause of significant biological effects in the unlikely event of an oil spill. Table 6.4 in the Ecological Risk Assessment of Westridge Marine Terminal Spills (Filing ID A3S4X1), and Tables 6.5 and 6.6 in the Ecological Risk Assessment of Marine Transportation Spills (Filing ID A3S4K7) detail the areas of habitat potentially affected (km2), by credible worst case (CWC) and smaller spills. It is possible, although not likely, that phototoxicity could occur within these areas. It is unlikely that phototoxicity would occur outside of these areas (due to the predicted absence of spilled crude oil). Therefore the inclusion of phototoxicity as an explicit toxicity mechanism would not change the results of these assessments.</p> <p>The second literature reference provided in relation to this information</p>			
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		<p>request concerns the potential for oiling of eggs to cause mortality of bird embryos. Trans Mountain acknowledges that this mechanism of toxicity is valid, and a concern in the event of a crude oil spill during the bird breeding season.</p> <p>As for environmental effects on marine fish and fish habitat, the biological sensitivity factors for marine birds are provided in Section 5.3.3 of each report. The length of shoreline potentially affected by spilled crude oil is detailed for the CWC spill in Table 6.3 of the Ecological Risk Assessment of Westridge Marine Terminal Spills (Filing ID A3S4X1), and in Tables 6.3 and 6.4 of the Ecological Risk Assessment of Marine Transportation Spills (Filing ID A3S4K7) for the CWC and smaller spills, respectively. Potential effects to marine birds and supporting habitat are estimated in Table 6.5 of the Ecological Risk Assessment of Westridge Marine Terminal Spills (Filing ID A3S4X1), and in Tables 6.7 and 6.8 of the Ecological Risk Assessment of Marine Transportation Spills (Filing ID A3S4K7) for the CWC and smaller spills, respectively. It is assumed that birds using these areas could be exposed to harm in the unlikely event of a crude oil spill. The potential for harm to birds, up to and including death, is clearly indicated in both ERAs. The inclusion of egg-oiling leading to embryotoxicity as an exposure and toxicity pathway would not change the conclusions of the ecological risk assessment reports, or the estimates of the areas of habitats where such harm could occur.</p>			
3.13(b)	<p>Please provide the composition and formula of each product that would be transported in and out of Westridge Terminal; in particular, indicate the concentrations of Polysynceic Aromatic Hydrocarbon (PAHs) and all other persistent and toxic pollutants in the products. Please provide rationale if the concentrations of all persistent and toxic pollutants cannot be provided.</p>	<p>The Trans Mountain Expansion Project will carry a variety of crude oils, with diluted bitumen (dilbit) expected to comprise a large percentage of the oil shipped. Section 5.1.1 of Volume 7, Hydrocarbon Properties Relevant to the Trans Mountain Expansion Project (Filing ID A3S4V5) describes the oil physical properties for proposed expansion. Properties of hydrocarbons shipped on the existing TMPL system are described in Section 5.4.2 of Volume 8A (Filing IDs A3S4Y5 and A3S4Y6). The composition and formula of each product that would be transported in and out of the Westridge Marine Terminal cannot be provided, and work to conduct such analyses is not contemplated, so Trans Mountain selected Cold Lake Winter Blend (CLWB) as a representative dilbit because it is currently transported by Trans Mountain, and because it will continue to represent a large percentage of the total products transported by the new pipeline. Section 5.4.4 of Volume 8A, Fate and Behaviour of Accidental Project-Related Diluted Bitumen Spills (Filing Ids A3S4Y5 and A3S4Y6) includes information on the factors which were taken into consideration in selecting CLWB as a representative product for the purposes of spill modeling. These factors included: because CLWB will continue to</p>	<p>Trans Mountain did not provide the specific information requested nor a rationale for why Trans Mountain cannot provide the composition of each product that would be transported in and out of the Westridge Marine Terminal.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>

		<p>represent a large percentage of the total products shipped from the Westridge Marine Terminal, there is a reasonable probability that in the event of an accidental spill, the spilled oil could be CLWB; its properties are comparable to other diluted bitumen products transported on the Trans Mountain Pipeline system and shipped from the Westridge Marine Terminal; and more research has been done on the fate and behaviour of CLWB than other blends.</p> <p>In addition, the diluent in CLWB is condensate (a light hydrocarbon mixture derived from natural gas liquids), which is volatile and relatively water-soluble. Due to the higher risk associated with potential inhalation of volatiles, and/or exposure to dissolved hydrocarbons, CLWB was considered to be a conservative choice for the evaluation of potential effects of accidents and malfunctions in the Ecological, and Human Health Risk Assessments.</p> <p>Detailed analysis of CLWB including polycyclic aromatic hydrocarbons (PAH) is provided in Table 6.2 of Technical Report 7-1, Qualitative Ecological Risk Assessment of Pipeline Spills (Filing ID A3S4W9).</p> <p>Environment Canada maintains a database of crude oil properties, which can be accessed at the following internet site: http://www.etc-cte.ec.gc.ca/databases/OilProperties/Default.aspx</p>			
3.13(c)	Please provide rationale if any of the above cannot be provided.	Reference in responses a and b.	Please see City's comments on 3.13 (a) to (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 3.13 (a) to (b).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.14 (a)	Please identify the procedures and standards at which Trans Mountain and/or the Responsible Party/Response Agency will initiate an oiled wildlife recovery plan in the event of a spill.	<p>Under the enforcement oversight of the Canadian Coast Guard, the polluter, or Responsible Party (RP), is ultimately responsible for all aspects of a marine oil spill, including wildlife. Project-related tankers and Oil Handling Facilities (i.e. the Westridge Marine Terminal) are required to have an agreement with Western Canada Marine Response Corporation (WCMRC), the Transport Canada certified spill response organization for the navigable waters of British Columbia. A summary of WCMRC’s current and future roles, responsibilities and actions can be found in the Application, Volume 8A Section 5, Table 5.5.3 (Filing ID A3S4Y6). This table also lists proposed improvements to WCMRC capacity, including their ability to manage wildlife issues resulting from oil spill in future.</p> <p>Experience has shown that through the Incident Command System (ICS), the RP will engage an established rehabilitation group, such as Focus Wildlife, to address emergency wildlife issues. Wildlife response activities are permitted and supervised by the resource trustee agencies. Within the Incident Command System, this group will adapt the general wildlife response guidelines of Federal agencies (Environment Canada/Canadian Wildlife Services and Fisheries and Oceans Canada), the Provincial Government (Ministry of the Environment), and WCMRC to the specific incident to ensure impact on marine birds and wildlife is managed in a responsible manner.</p>	<p>The response provided information on the process of when the Responsible Party engages an established rehabilitation group; however, this is not the response requested from the City.</p> <p>The City is requesting the standards/procedures which the Responsible Party would adopt in determining whether or not an oiled wildlife recovery plan will be initiated (i.e., what are the triggers for the plan’s initiation? what are the thresholds? Will oiled wildlife response and recovery be initiated every time there is an oil spill?).</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.14 (b)	Please describe the legal responsibility and commitment that Trans Mountain/Responsible Party has in terms of oiled wildlife rescue and	Refer to response to City of Port Moody IR No. 2.3.14a.	The response provided did not describe the <u>legal responsibility and commitment</u> of Trans Mountain/Responsible Party has in the matter of	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s	Trans Mountain’s response does not address the City’s explanation for the inadequacy

	recovery in the event of an oil spill.		oiled wildlife rescue and recovery.	response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.14 (c)	Please provide an established oiled wildlife recovery plan and procedures, if any. If there is none available, please provide any commitment and plans to establish one prior to the proposed Project becoming operational and/or the rationale for not having prepared such plan ahead of any potential incident.	The probability of an oil spill on land or water has been assessed as low. Trans Mountain will work through the Incident Command System (ICS) to manage an oil spill including the procurement of wildlife rehabilitation organizations through the ICS. To handle wildlife issues the Responsible Party (RP) will engage an established wildlife group such as Focus Wildlife to address region-specific emergency wildlife issues. This group shall work closely with Federal agencies (Environment Canada/Canadian Wildlife Services and Fisheries and Oceans Canada) and the Provincial Government (Ministry of the Environment), WCMRC within the Incident Command System to ensure impact on marine birds and wildlife is managed in a responsible manner. As noted in Section 5, Table 5.5.3 of Volume 8A (Filing ID A3S4Y6), WCMRC's future response plan associated with the Project will address a new protocol to treat oiled wildlife.	Based on the response, the City understands that Trans Mountain currently has no details on oiled wildlife recovery plan/protocol; however, WCMRC will be creating a new protocol to treat oiled wildlife and that there is no determined timeline and condition on the development of such protocol in relation to the proposed Project. Please confirm the City's understanding of Trans Mountain's rationale for not providing the information requested.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.14 (d)	Please describe the procedures for determining whether or not to initiate oiled wildlife rescue and recovery work in the event of a spill. Please provide all examples in the past when oiled wildlife rescue and recovery work has been prematurely terminated prior to the complete recovery of oiled wildlife, if any.	Refer to response to City of Port Moody IR No. 2.3.14a.	Please see City response 3.14(a). Additionally, Trans Mountain did not provide any comments in relation to the request for past examples when oiled wildlife rescue and recovery work have been prematurely terminated prior to the completion recovery of oiled wildlife.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.14 (e)	Please provide the amount and types of equipment and vessels dedicated and available for oiled wildlife rescue and recovery in the event of a marine oil spill in the Burrard Inlet that spread towards the Port Moody arm and contaminates	In view of the response to City of Port Moody IR No. 2.3.14c, which identifies the procedure for managing oiled wildlife rescue and recovery through the ICS, the information requested is not within the scope of this proceeding and not	The topic of oiled wildlife rescue and recovery is directly related to spill response, as well as impacts of spill, which are included within the scope of the List of Issues identified.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2

	the Port Moody mudflat and shoreline.	relevant to the NEB's List of Issues (Filing ID A3V6I2).	The City requires a complete and adequate response to its request or a reasonable rationale for not providing the information.	Board in its consideration of the application and no further response is required.	request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.14 (f)	Please provide the number of trained personnel, specifying their level of expertises and experiences, contracted by Trans Mountain/WCMRC for oiled wildlife rescue and recovery and provide details for such contract - including scope of work. Please provide rationale if no trained personnel are contracted or available to respond immediately to spills.	In view of the response to City of Port Moody IR No. 2.3.14c, which identifies the procedure for managing oiled wildlife rescue and recovery through the ICS, the information requested is not within the scope of this proceeding and not relevant to the NEB's List of Issues (Filing ID A3V6I2).	The topic of oiled wildlife rescue and recovery is directly related to spill response, as well as impacts of spill, which are included within the scope of the List of Issues identified. The City requires a complete and adequate response to its request or a reasonable rationale for not providing the information.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.14 (g)	Please provide rationale if any of the above information are not available.	Refer to the responses to a) to f) above.	Please see City's comments on 3.14(a) to (f).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 3.14(a) to (f).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.15 (a)	Please provide the expected response time and response agency for fire at the Westridge Terminal and on vessels in Burrard Inlet.	<p>Trans Mountain assumes that the Intervenor is asking about fire onboard a tanker at Westridge or at anchor.</p> <p>Response actions would begin immediately upon detection, beginning with the vessel crew and drawing upon the terminal and external agencies depending upon the nature of the event.</p> <p>The measures to reduce the risk of fires and explosions on double-hulled tankers were previously discussed in the response to City of Vancouver 1.10.12a (Filing ID A3Y2G6). Fire detection and extinction systems in vessels are described in TEMPOL 3.9 (Filing ID A3S4T2). Please refer to the response to Province of BC IR No. 1.1.78a (Filing ID A3Y2Z1) for information on firefighting at Westridge.</p> <p>The systems approach to global tanker practices, designed under the auspices of the International Maritime Organization (IMO), ensures that tankers are designed, constructed, equipped and operated in a manner that significantly reduces the likelihood that emergency situations will occur. Fires or explosion onboard a tanker of the type proposed by the project is a very unlikely event. All tankers as proposed by the Project are required to carry and operate an inert gas system which is designed to protect the cargo tank spaces from the threat of fire or explosion (refer to TERMPOL 3.9 Ship Specifications; Filing ID A3S4T2). The mandatory use of inert gas systems on all crude oil tankers has almost eliminated the threat of fire and explosion</p>	<p>The City’s specific request clearly refers to fire at the Terminal and on vessels in Burrard Inlet – which means that the response should address fire on tankers related to the Project at any point in time, even if they are not anchored.</p> <p>The City finds that the information related to likelihood of fire on board a vessel is irrelevant to the request and that the actual requests, such as what are the expected response times and who would be the lead response agency for addressing fires, were not addressed. Knowledge of fire response time, equipment and agencies involved should be available regardless of expected likelihood of fire, as emergencies are by nature unpredictable and unexpected when they occur.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

		<p>onboard a tanker related to her cargo. The advent of double hull tankers has further reduced such threats as a result of collisions or other high energy impacts. The double hull also reduces impact of external fires or explosions (e.g., terminal fires) on cargo or bunker tanks. Construction requirements for double hulled tankers were developed by the International Maritime Organization (IMO) after the US <i>Oil Pollution Act</i> of 1990 and were finalized after 1995. Tanker crews are trained to maintain an onboard environment free of ignition threats, and various prevention and detection elements are designed into the construction of the tanker.</p> <p>The adherence to a systems based approach to tanker practices has significantly improved shipboard safety on tankers, which is clearly shown through Volume 8C, TERMPOL 3.8 (Filing ID A3S4T1) and the 2014 update to TERMPOL 3.8 (Filing ID A4A7R1). Statistical analysis indicates that fires and explosions onboard double hulled tankers are not a significant risk contributor in coastal navigation.</p> <p>Several harbour tugs are fitted with high capacity firefighting monitors and can apply their water cannons on a vessel and carry out boundary cooling or firefighting. There are ongoing discussions between Port Metro Vancouver (PMV) and cities and municipalities in Metro Vancouver to develop additional capacity for trained firefighters who can assist in case of any ship fire in the harbour. Trans Mountain understands that discussions with cities and municipalities in Metro Vancouver also extends to the procurement of additional fire boats. For a more detailed discussion on tug use during emergency, please refer to</p>			
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		response to NEB IR No. 3.071c-i (Filing ID A4H1V2).			
3.15 (c)	Please provide details on how Trans Mountain plans to mitigate impacts to the local community in the case of an emergency related to the construction and operation of the proposed Project (including marine traffic) that exhausts local resources from responding to the common-day emergencies of the local community.	<p>As described in Technical Report 5D-8 of Volume 5D, Community Health Technical Report (Habitat Health Impact Consulting Corp. 2013; Filing ID A3S2L9), emergency management and municipal officials indicated that responding to a small-scale patient incident would be manageable by the local ambulance services.</p> <p>In situations that may overwhelm local capacity for containment, treatment and management, regional or provincial-level agencies will step in to coordinate response and allocate resources. A large-scale incident (e.g., a 20-30 person mass casualty incident) would be followed by the initiation of “Code Orange”, or a mass casualty plan. Planning will be coordinated between emergency medical responders (fire, ambulance) and hospitals in adjacent regions. Ambulance services will recruit both ground and air ambulance as needed in order to transfer patients to care centres that can handle the particular needs of the patients. While key informed sources in the health care and emergency management sectors indicated that this type of scenario would overwhelm ambulance services and local health care facilities, they also indicated that the effect would be temporary.</p> <p>A number of measures are described in the Socio-Economic Management Plan (SEMP) (Section 8.0 of Appendix C of Volume 6B; Filing ID A3S2S3) that will serve to minimize any adverse effects of an emergency on health care and emergency management resources. These measures include: communicating with local health authorities and emergency medical service authorities on the timing of the Project,</p>	The response lacks clarity. Please identify who the emergency management and municipal officials mentioned in Trans Mountain’s response are.	<p>In Technical Report 5D-8 of Volume 5D, Community Health Technical Report (Habitat Health Impact Consulting Corp. 2013; Filing ID A3S2L9), the sentence “emergency management and municipal officials indicated that across the Socio-economic RSA, responding to a small-scale patient incident would be manageable by the local ambulance services” is followed by a citation of where this information came from (“Kreiner, Lodder, Ramme, Vallely, and Wiebe, pers. comm.”).</p> <p>In addition, consultations with the Fraser Health Authority (see Table 2.1, Summary of Consultation Activities Related to Human Health for a description of names and positions of people interviewed) also confirmed the same conclusions.</p> <p>Finally, consultation with personnel from the Burnaby Hospital on September 17, 2013 (not listed in Table 2.1) also confirmed these same conclusions.</p>	The response does not provide adequate information on the complete service impacts (i.e., beyond ambulance and hospital services) to the local community. The City requests a full and adequate response to its information request.

		duration of stay in the local community, expected number of people coming into the area and on-site health care plans; developing site-specific Emergency Response Plans; supplying medical personnel and equipment to work sites, including camps; establishing contracts for the use of air evacuation in the event of serious injury in more remote locations; providing chemical information in the form of Material Safety Data sheets in the event of an exposure; supplying medical personnel and equipment to work sites, including camps; and meeting applicable occupational health and safety regulations, including the use of Emergency Medical personnel, Emergency Transport Vehicles, and First Aid rooms.			
3.15 (d)	<p>Please provide details on the communication methods and protocols between Trans Mountain/WCMRC and local authorities, specifying:</p> <ul style="list-style-type: none">• The frequency of communication;• The frequency of exercises involving local municipal response agencies;• The actions to maintain and strengthen communications between the Responsible Party, WCMRC and the local authorities; and• The training capacity and resources (including compensation for time) provided by Trans Mountain/WCMRC/industry to local authorities for increased emergency preparedness actions as a result of the proposed Project, as well as the capacities that will not be compensated for.	<p>1) Communications</p> <p>WCMRC is always accessible by telephone and in a ready state. Currently, WCMRC maintains a 24-hour per day, 7-day per week standby system such that a WCMRC operational person is on duty supported by other WCMRC personnel and resources. WCMRC maintains contact information for WCMRC personnel, advisors, government agency personnel, local contacts for area plans, FOSET members/vessels, contractors, suppliers, custodians and clients (member/non-members) and mutual aid personnel. WCMRC will call out response personnel and organizations as required for an appropriate response.</p> <p>Public and private communication networks are capable of total coverage throughout the spill operating area. The Canadian Coast Guard provides public VHF radio capabilities that encompass over 98% coverage on the BC coast. Utilizing a network of fixed and portable receivers, WCMRC operates its own secure</p>	<p>Based on the response provided, the City understands that for local governments,</p> <ul style="list-style-type: none">• Communication with WCMRC is available 24 hours, 7 days a week as part of normal operations;• When an incident occurs, communication will be enhanced and coordinated through the ICS as per ICS protocols, and as part of the protocols, consistent sharing of information and updates will be made available by Responsible Party to local governments and authorities;• Trans Mountain/WCMRC has no plans to increase training exercises, nor to assist and support the enhancement of emergency preparedness and response capabilities of local authorities and responders specifically related to the proposed Project. <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>

		<p>licensed UHF radio frequencies and coastal repeater system. For small spills, cell phones and normal vessel radio communications, equipment will be sufficient to direct and coordinate onsite cleanup. All response vessels have both fixed and portable VHF and UHF radio equipment with dedicated channels for routine communication among vessels. Each response base and the larger vessels will also have Iridium satellite phones.</p> <p>WCMRC initiated an enhancement to their Geographic Response Strategy program in 2013 to update the data and modernize the accessibility. In June 2014, all of the GRS features identified in Central Burrard Inlet were reviewed with the emergency planners from the surrounding municipalities, including with participants from the City of Port Moody. These local representatives provided feedback and suggestions for additional program features that are of high importance within their community. Incident-specific Communications Plans are coordinated through the Unified Command.</p> <p>2) Exercises and Training</p> <p>WCMRC conducts multiple exercises annually, including certification exercises with Transport Canada and various government agencies within their Geographic Area of Response. Local municipalities are invited to participate as stakeholders within an ICS section. These certification exercises follow a rotation of:</p> <ul style="list-style-type: none">• 150 Tonne on-water deployment (annual),• 1000 Tonne Tabletop (annual),• 2500 Tonne on-water deployment (every 2 years),• 10,000 Tonne Tabletop (every 3 years)			
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3.15 (e)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to a) to d) above	Please see City's comments on 3.15 (a) to (d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 3.15 (a) to (d).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.16 (a)	Please indicate strategies, procedures, protocols, plans and/or policies for large scale volunteer management in the event of a spill by Trans Mountain or any cleanup agencies contracted by Trans Mountain and other responsible parties.	Refer to City of North Vancouver IR No.2.2.6a. This IR is contained as City of Port Moody IR No. 2.3.16a - Attachment 1.	<p>In accordance to Procedural Direction No.9, "Trans Mountain must provide a full response to each IR; not merely cross-reference a response to a similar question asked in January 2015 by the Board or an intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document."</p> <p>The City requests that Trans Mountain provide responses in accordance to the Procedural Directions published by NEB.</p> <p>The City has reviewed the details of the City of North Vancouver's IR response and based on this review, concludes the following:</p> <ul style="list-style-type: none">• Trans Mountain views that no volunteers will be involved in spill response;• Any volunteers showed up unrequested will be prevented from accessing the site;• No protocol or specific plans related to volunteer management will be developed before an incident; and• Volunteer management will be another issue for the ICS or Unified Command to address in the event of an emergency;• As there will be no pre-developed	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p> <p>Trans Mountain put forward a response that adequately describes the plan in place to manage emergent volunteers. This plan as described in the original response to this IR, was put into practice with success in 2007. Trans Mountain will commit to exercising volunteer management in training opportunities in future.</p> <p>Trans Mountain agrees that volunteering can be an important part of community recovery after a disaster, however due to the nature of hydrocarbon spills, volunteers cannot be directly used until they have undergone appropriate training for spill response.</p> <p>KMC has always been committed to working with organizations, both public and private, to ensure there is a mutual understanding how the pipeline and/or operations at facilities could impact those organizations for incorporation in their own emergency response plans, when those organizations request assistance. However, KMC is not responsible for the emergency planning of other organizations.</p> <p>In terms of volunteer management for marine response, as noted in the reference (ii) for City of Vancouver IR No. 2.3.2a there is a plan referenced for the Pacific States Oil Spill Response Task Force of which the Province of BC is a member. As such the task force plan could apply to any situation on BC's coast: http://www.oilspilltaskforce.org/docs/planning_for_volunteer_management.pdf</p>	<p>The response provided by Trans Mountain does not directly address the original request, or confirm the City's understanding, as stated in the Motion submitted.</p> <p>The Planning Guidelines for Convergent Volunteer Management, referenced by Trans Mountain in its response, is incorrectly cited as a volunteer management plan. Rather, the document consists of guidelines for planning a Volunteer Management Plan, and is not a Plan in itself that is ready for implementation as soon as an incident occurs.</p> <p>Based on this information provided thus far from Trans Mountain, the City understands the following:</p> <ul style="list-style-type: none">• Trans Mountain views that no volunteers will be involved in spill response;• Any volunteers showed up unrequested will be prevented from accessing the site;• No protocol or specific plans related to volunteer management will be developed by Trans Mountain or WCMRC before an incident; and• Volunteer management will be another issue for the ICS or Unified Command to address in the event of an emergency;• As there will be no pre-developed

			<p>plans, strategies or protocols in place for volunteer management, Trans Mountain is also unable to provide the specifics on volunteer management pertaining to requests I to vii, specifically in relation to the management capability of Unified Command on massive volunteer groups, specific training measures, past exercises with consideration of volunteer management plan and public health surveillance program, and consultation of volunteer management plan with local authorities and agencies;</p> <ul style="list-style-type: none"> • Similarly, Trans Mountain is unable to provide details in relation to requests 3.16 b-c due to the lack of developed volunteer management strategy/plan/protocol in advance of an incident. <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>		<p>plans, strategies or protocols in place for volunteer management, Trans Mountain is also unable to provide the specifics on volunteer management pertaining to requests I to vii, specifically in relation to the management capability of Unified Command on massive volunteer groups, specific training measures, past exercises with consideration of volunteer management plan and public health surveillance program, and consultation of volunteer management plan with local authorities and agencies;</p> <ul style="list-style-type: none"> • Similarly, Trans Mountain is unable to provide details in relation to requests 3.16 b-c due to the lack of developed volunteer management strategy/plan/protocol in advance of an incident. <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>
3.16 (a)(i)	Please indicate the maximum number of volunteers that the aforementioned procedures would be able to adequately manage; please demonstrate that this number is reasonable for the Metro Vancouver region.	Refer to City of North Vancouver IR No.2.2.6a. This IR is contained as City	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)
3.16 (a)(ii)	Please indicate whether the strategy involves equipment, training, and monitoring measures to ensure the safety of volunteers; please also discuss the provision of a public health surveillance program, if any.	Refer to City of North Vancouver IR No.2.2.6a. This IR is contained as City	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)
3.16	Please indicate how the volunteer management plans/strategies are	Refer to City of North	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for	See above 3.16(a)

(a)(iii)	activated through the ICS.	Vancouver IR No.2.2.6a. This IR is contained as City		the Board in its consideration of the application and no further response is required	
3.16 (a)(iv)	Please provide details on communication strategies and systems to local municipalities, volunteers, and the public in the case on a large scale oil spill.	Refer to City of North Vancouver IR No.2.2.6a. This IR is contained as City	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)
3.16 (a)(v)	Please indicate the number of past exercises involving the activation of the volunteer management plan and public health surveillance program.	Refer to City of North Vancouver IR No.2.2.6a. This IR is contained as City	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)
3.16 (a)(vi)	Please provide evidence that such plan/strategy is developed in consultation with local Metro Vancouver health agencies, local municipalities, and emergency response organizations (e.g. police, fire departments, etc.)	Refer to City of North Vancouver IR No.2.2.6a. This IR is contained as City	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)
3.16 (a)(vii)	Please provide rationale if such strategies/procedures or any of the above are not established.	Refer to City of North Vancouver IR No.2.2.6a. This IR is contained as City	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)
3.16 (b)	Please provide details on who is responsible, both technically and financially, for ensuring the safety of volunteers and administrating safety guidelines around all hazards, including but not limited to skin contact, inhalation of vapours, and fire explosion.	Refer to City of Port Moody IR No. 2.3.16a.	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)
3.16 (c)	If Trans Mountain/WCMRC are not responsible for volunteer management and do not have	Refer to City of Port Moody IR No. 2.3.16a.	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further	See above 3.16(a)

	plans/protocols in this area, please provide details on the responsible agency, their expertise and resources on delivering such plan, as well as how Trans Mountain has engaged them to ensure such resources are available and who will incur the cost.			response is required	
3.16 (d)	Please provide rationale if any of the above cannot be provided.	Refer to City of Port Moody IR No. 2.3.16a.	See above 3.16(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	See above 3.16(a)

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.19 (a)	Please provide details on past deployment of the back-up boom system, specifying the details of the situation which triggered their employment as well as an assessment of the performance and effectiveness of these systems.	The secondary containment boom was deployed in 2007 to contain oil emerging from sewer outfalls near Westridge following a release resulting from third-party damage to the pipeline in Inlet Drive in Burnaby. As there have been no releases from the terminal Trans Mountain uses this secondary boom for training and exercise purposes but they do not keep sortable records on these past Westridge Marine Terminal deployments. Please see response to NEB IR No. 1.69a (Filing ID: A3W9H8) for a description of exercises conducted over the past 5 years, this list does not include the deployment exercise held June 24, 2014.	<p>The response neglected to include an assessment of the performance and effectiveness of the deployment of secondary booms in relation to the 2007 deployment, which was part of the request.</p> <p>The City requires a complete and adequate response to its request.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.19 (c)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to a) and b) above.	See City response on 3.19(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.20(a)	Please provide details on available technology, performance, and effectiveness of cleanup measures for diluted bitumen suspended in the water column and diluted bitumen sunken to the ocean floor.	<i>Not directly referenced.</i>	No response was provided, please provide a full and adequate response.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.20(a)(i)	Please provide details on the availability of these technologies for a spill in the Burrard Inlet and the Strait of Georgia, within the 30 minute, 1-hour, and 2-hour range	<p>By the nature of the intervenor's question it appears that the intervenor is of the understanding that any spilled diluted bitumen carried on the Trans Mountain system will immediately sink if released to the marine environment. This is not the case. As such, it is important to first review background information regarding diluted bitumen and its potential to become submerged or sink. The products shipped on the Trans Mountain system are, by tariff, restricted from having a specific gravity greater 0.94 and will not sink unless exposed to a combination of conditions. Tests conducted for Trans Mountain, by Environment Canada (2013), and by SL Ross (2010, 2011) for the Northern Gateway application, show that weathered representative samples of diluted bitumen (CLB and AWB) are expected to remain floating on dense saltwater. While the Environment Canada Report does not provide a time element for the densities of samples tested, the Gainford report (in the Technical Report 8C-12 S7, Volume 8C, A Study of Fate and Behavior of Diluted Bitumen Oils on Marine Waters [Filing ID</p> <p>A3S5G2]) showed that fresh and weathered representative samples of diluted bitumen (CLB and AWB) would float on freshwater for eight days or more depending on local factors such as sediment and mixing energy. The salinity of Burrard Inlet water has a greater density than freshwater. The same tests showed that conventional skimming equipment is</p>	<p>Based on the response provided, the City is of the understanding that the fate of spilled oil (including the potential and speed of sinking) depends on a number of factors, including but not limited to the interaction between density, viscosity, potential emulsion formation, and environmental conditions; and that an analysis with the collective consideration of these factors have not and will not be completed and presented to Intervenor or the Panel during this Hearing Process.</p> <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>capable of removing both fresh and weathered oil.</p> <p>Prompt response is important given that the weathering process is in part related to the time over which oil is exposed to the environment. Westridge loading operations will be conducted inside a pre-deployed boom, which would contain a release. Additional boom and response equipment, including skimmers, will be maintained on site. In the unlikely event of a spill, the responsible party (Trans Mountain for a pipeline spill, the tanker owner for a tanker spill) would work with regulatory agencies in a Unified Command to determine both response and remediation strategies appropriate for the specific circumstances of the event. Response strategies employed to avoid sinking oil are those focused on:</p> <ul style="list-style-type: none">• Controlling the source of the spill• Preventing released oil from entering a waterbody• Containing, intercepting and promptly removing oil from the water surface• Removing stranded oil that could be remobilized from the shoreline <p>The behavior and fate of spilled dilbit (bitumen blended with condensate or synthetic crude oil) was canvassed extensively in the Joint Review Panel hearings relating to Northern Gateway, and the Panel, in assessing the issue, accepted the following facts:</p> <ul style="list-style-type: none">• The maximum initial density of the dilbit would be 940 kilograms per cubic metre, in conformance with the proposed pipeline tariff specification. When initially spilled, the density would be less than that of fresh water or salt water, making dilbit a floating oil.• Experts agreed that dilbit is not a simple two-phase mixture of bitumen and condensate, but is instead a new, cohesive, blended product. When spilled into water, lighter hydrocarbon fractions of the entire blend would begin to evaporate. As lighter fractions evaporate, the viscosity of the weathered dilbit would increase, and evaporation of remaining lighter fractions would be progressively inhibited.			
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		<ul style="list-style-type: none">• Past examples of spills do not indicate that products similar to dilbit are likely to sink within the timeframe for response options, or in the absence of sediment or other suspended particulate matter interactions.• Dilbit may sink when it interacts with sediment or other suspended particulate matter, or after prolonged weathering.• Bench-top and wave tank testing indicated that dilbit is not likely to sink due to weathering alone within a short to medium timeframe. The evidence indicated that multiple factors, such as the interaction between density, viscosity, potential emulsion formation, and environmental conditions must all be examined together in considering the fate of spilled oil, including the possibility of sinking. Much of the evidence that the Panel heard did not consider these factors collectively.• The weight of evidence indicates that, when spilled in water, dilbit with a maximum density of 940 kilograms per cubic metre would behave similarly to an intermediate fuel oil or lighter heavy fuel oil with a density less than 1,000 kilograms per cubic metre. Various experts, including those involved in spill response, said that these products provide reasonable analogs for dilbit behaviour as it relates to oil spill response.• Transport Canada said that a response organization would be likely to treat a dilbit spill as a blended crude oil product spill.			
3.20(a)(ii)	Please provide an assessment of the limitations of these technologies and/or factors that limit the capabilities of these technologies in the recovery of sunken diluted bitumen in the Burrard Inlet and the Strait of Georgia, such as weather, current, temperature, and access to spills.	Should a portion of spilled oil sink due to a combination of factors, and it could not be easily recovered during the emergency phase (such as oil in shallow water or along shorelines) it would be treated as a post emergency recovery function. Remedial actions, including actions required to recover sunken oil would be developed by the responsible party and regulatory authorities working as part in a Unified Command and would be guided by a Net Environmental Benefit Analysis (NEBA). In this respect, the approach to sunken oil remediation	<p>The response neglected to address the limitations of existing oil removal technology as requested.</p> <p>The City requires a complete and adequate response be provided to this request.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>would be similar to cleanup of industrially contaminated sediments in waterways. Each situation will be unique and, where warranted, methods may include:</p> <ul style="list-style-type: none"> • Capturing the oil where currents and hydrographic conditions are amenable to the deployment of oleophilic material to trap the oil • Remobilization, containment and removal of the oil through agitation of sediments (raking, dragging, pneumatic agitation) • Bulk removal of the oil through pumping and/or dredging • Long-term monitoring and natural attenuation in areas where remedial actions pose more harm than benefit <p>In general, the equipment used to recover submerged and sunken oil resides within the existing inventories of: a) WCMRC, b) supplemental oil spill response contractors, and c) the marine construction industry</p>			
3.20(b)(i)	Please provide an assessment of any limitations of the sunken oil detection system, such as weather, current, temperature, and access to spills.	Not directly referenced.	<p>No response was provided to address the limitations of sunken oil detection system as requested.</p> <p>The City requires a complete and adequate response be provided to this request.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.20(b)(ii)	Please provide an assessment on the potential and the impacts of micro-alga entanglement on oil skimmers.	Not directly referenced.	No response was provided. The City requires a complete and adequate response to its request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.20(c)	Please provide rationale if any of the above cannot be provided	Refer to the responses to parts a) and b) above.	Please see City's comments for 3.20 (a) to (b)(ii).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a

				application and no further response is required	full and adequate response to the City's IR No.2 requests.
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IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Mmotion	Intervenor's Response
3.21(a)	Please provide information on the response time by field personnel to release reports for the 2007 spill in Burnaby, BC. Please specify the time it took before the detection of the issue and when the first response equipment arrived.	<p>Refer to response to NEB IR No. 1.70a and 1.70b (Filing ID A3W9H8) for a complete list of Level 2 and 3 spill response summaries. The 2007 Burnaby release information is below.</p> <p>Westridge Delivery Line Release</p> <ul style="list-style-type: none"> • Date: July 24, 2007. • Time: 11:31am (3rd party notification of oil on road). • Level of Incident: Level 3. • Volume: 1400 bbl. • Product: Albion Heavy Synthetic Crude Oil. • Location: Inlet Drive (Burnaby, BC) at Trans Mountain Kilometre post 3.10. • Site Access: Site was accessed via Inlet Drive. • Cause of Release: Third Party line strike. • Time of Initial Assessment: 11:49am (18 minutes from incident time). • Notification to Transportation Safety Board (TSB)/NEB: 12:45pm (56 minutes from confirmation of incident). • Time of equipment arrival on site: 11:49am (18 minutes from incident time). • Time of Incident Command Post activation: 12:08pm (19 minutes from confirmation of incident). • Summary of environmental conditions: No significant environmental conditions impacting the ability to respond and recover products 	<p>The response did not provide information on response time by field personnel as requested.</p> <p>The City requires a full and adequate response to its request.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.21(b)	Please provide rationale if the above cannot be provided.	Refer to the response to a) above.	Please see City's comments 3.21(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments 3.21(a).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.22(b)	Please provide a sensitivity analysis for the risks provided in reference.	A sensitivity analysis has not been prepared. The model is sensitive to input, key amongst which is vessel traffic. Vessel traffic has been evaluated on the basis of data using AIS information and then forecast to 2018 to 2028. Based upon this, a sensitivity analysis is not required to interpret the model results and the results of the risk assessment. Trans Mountain is confident that the evaluation of marine risk undertaken by Trans Mountain and its experts, which includes DNV have been carried out with a high degree of due diligence and fulfill NEB requirements (Filing ID A3V6I2) and fully describes the range of environmental effects that could result from an oil spill along the marine shipping route. The results allow for the assessment of additional risk reducing measures (preparedness and planning measures) that can effectively contribute to reducing both probability and consequence.	<p>Based on the response provided, the City understands that Trans Mountain will not be providing a sensitivity analysis as it is Trans Mountain's assessment that all underlying inputs of the risk assessment model is without inaccuracy and uncertainty.</p> <p>Please confirm the City's understanding of Trans Mountain's rationale for not providing the information requested.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.22(c)	When completing the probabilistic risk assessment to arrive at the conclusion for marine spills, were events analyzed in isolation? If yes, please describe why this approach was chosen. If no, please provide evidence that events were not assessed in isolation in the assessment.	Refer to the response to City of Port Moody IR No. 2.3.22a. The risk for the entire sailing route is the combined risk of all potential events; events are not considered in isolation. In other words, the frequency for an accidental oil spill in the sailing route is the sum of the frequencies for all the potential accidents. The results (frequencies) are also broken up per sailing segment to show the individual variation in various parts of the sailing route, but the final risk results is a sum of all the risks. Table 20, Technical Report TERMPOL 3.15, Volume 8C, General Risk Analysis (DNV 2013, Filing ID A3S5F6) provides evidence that all frequencies are summed to calculate the total spill frequency for the sailing route.	<p>Trans Mountain has mistaken the nature of the request and a more detailed explanation of the request will likely help Trans Mountain in its provision of an adequate response to the City's original request.</p> <p>The City understands that the current risk assessment is based on the combined risk of all potential incidents along the entire sailing route. However, the City is specifically asking whether or not the risk assessments performed only analyzed the risk and impacts of spill caused by a single event, or a series of events.</p> <p>The City requires a complete and adequate response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

3.22(f)	Does the risk assessment consider increased marine transportation of hazardous material from other projects? If yes, please provide evidence of this claim by listing the project, materials being shipped and the frequency/capacity used in the analysis. If no, please provide the rationale for this omission.	<p>The marine risk assessment considered the increase in vessel traffic resulting from TMEP and other projects and used that information as a key input. The method of determining the increase in traffic is detailed in Section 3.2, Technical Report TR 8C 02 TERMPOL, Volume 8C, Termpol 3.2: Origin, Destination and Marine Traffic Volume Survey (Moffat and Nichol 2013; Filing ID A3S4R8).</p> <p>The ultimate aim, as required by Termpol, is to assess the risk of an oil spill from a project tanker. The aim is to ascertain the likelihood or frequency of a navigation incident and thereafter evaluate the frequency of a navigation incident, primarily collisions or grounding, which could lead to the release of oil into the marine environment.</p> <p>As such, it is necessary to account for the types of vessels in the marine network and their contribution to the risk of a navigation incident, as opposed to accounting for all other types of cargoes as part of the assessment.</p> <p>For this purpose the type of cargo on other vessels is not material to the assessment.</p>	<p>Based on the response, the City is of the understanding that the risk and impact analysis performed and submitted by Trans Mountain does not account for all types of cargo and vessels operating and traversing the Burrard Inlet.</p> <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.22(g)	Please provide details as to how environmental changes, such as increased frequency of extreme weather events from climate change, have been taken into account for the risk assessment. If they have not been considered, please provide a rationale as to why not.	Events related to climate change are not an issue identified in the National Energy Board's List of Issues for the Trans Mountain Expansion Project. The Project's environmental changes (such as events related to climate change) are items with very long term effects, far beyond the Project's commercial life and cannot be accounted for in a risk assessment of the nature undertaken by DNV. That said, tankers as proposed by the Project are designed and constructed to operate in rough seas and bad weather. Also, within the design for the Westridge Marine Terminal, the minimum soffit deck elevation for the loading platform shall be such that there shall be no wave slamming on the deck during the passage of a	<p>The City is not requesting for information with relation to the proposed Project's contribution to climate change, but the focus of the question is rather on whether or not changes in environmental conditions as a result of climate change were considered as a factor in the risk assessment. The request is within the scope of the List of Issues identified.</p> <p>The City understands, based on the responses, that Trans Mountain has not taken into account the potential of more frequent extreme weather events and other changes in environmental conditions as a result of</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		H1/100 wave (upper 1% mean wave height) for a 100 year return period, and allows an extra 0.5 m to account for storm surge and sea level rise.	<p>climate change as a factor in its risk assessments.</p> <p>The rationale is that it is Trans Mountain’s assessment that climate change effects cannot be accounted for.</p> <p>Please provide confirmation on the City’s understanding articulated above are correct, as well as a complete and adequate response to the original request (including a rationale for not considering the impacts of climate change on the risks of the Project).</p>		
3.22(h)	Please provide rationale if any of the above cannot be provided.	Not applicable.	Please see City’s comments on 3.22(a) to (g).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.23(a)	Please provide details on the communication failures that occurred during the 2007 spill.	The communication procedures in the referenced material related to the cause of the incident, not the response to the incident.	The response did not address the City's concerns over communication protocols in relation to incidents. The City requires details to be provided with respect to past spills and whether or not these factors have been addressed adequately and effectively since the 2007 incident.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.23(b)	Please provide details on any remedial measures that have been implemented to address the above communication failures.	Refer to response to City of Port Moody IR No. 2.3.23a.	Please refer to City's comments on 3.23(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.23(c)	Please provide rationale if any of the above cannot be provided.	Refer to response to City of Port Moody IR No. 2.3.23a.	Please refer to City's comments on 3.23(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.24(e)	Please provide an assessment of how diluted bitumen synthesizes as it comes into contact with air and water compound, specifically in relation to potential to the creation of toxic cloud of benzene and toluene (carcinogens) and hydrogen sulphide.	Please see the response to City of Port Moody IR No. 2.3.24e.i.	The response did not provide information with regards to an assessment of the fate of diluted bitumen when it comes into contact with air and water compound, as well as the potential for toxic cloud formation, as requested.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.24(e)(i)	Please specify the resulting health impacts to Port Moody residents and community if such toxic cloud is created and dispersed to the Port Moody region from a spill in the Burrard Inlet.	<p>An assessment of the potential human health effects associated with a series of simulated facility and marine oil spill scenarios was completed and presented in the Human Health Risk Assessment (HHRA) of Facility and Marine Spill Scenarios Technical Report (Filing IDs A3Y1E9, A3Y1F0, A3Y1F1 and A3Y1F2). The HHRA of the Westridge Marine Terminal included a set of simulated spill scenarios involving different-sized spills resulting from an incident while loading a tanker at berth at the facility. It should be noted that a precautionary boom is set in place around berth before the beginning of the loading operation. In the event of a spill at the Westridge Marine Terminal, it is expected that Trans Mountain, the Western Canada Marine Response Corporation, Coast Guard authorities and/or other response personnel would first arrive on scene within as little as one hour. Upon their arrival, emergency and spill response measures aimed at quickly containing and recovering the spilled oil would be implemented. As such, the focus of the HHRA was on determining the nature and extent of the potential health effects that could occur among people from short-term inhalation exposure to the chemical vapours released from the surface of the oil slick during the early stages of the oil spill before the arrival of first responders and the implementation of these emergency and spill response measures.</p> <p>For the purposes of the HHRA, emphasis was given to the local study area (LSA), which was defined as the area</p>	The response provided no information on the health impacts of Port Moody community if a toxic cloud was created, as requested.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

		<p>within the air modelling domain where the predicted one-hour average vapour concentrations of the chemicals of potential concern (COPC) were predicted to exceed the corresponding acute inhalation Exposure Limits, independent of the hour post-spill in which the exceedance occurred. The LSA served as the focus of the assessment in terms of identifying and understanding the nature and extent of health effects that people might experience from exposure to the COPC vapours since it represents the area within which exposure to the vapours would be greatest, possibly reaching levels at which effects could occur. For simplicity, and as a conservative measure, the LSA determined for the credible worst-case (CWC) simulated oil spill scenario at the Westridge Marine Terminal (i.e., 160 m³ of oil spilled; 20% or 32 m³ presumed to escape containment boomA3Y1E9), the City of Port Moody is located outside the LSA. As such, no exceedances of the acute inhalation Exposure Limits of the COPC vapours were predicted for the City, indicating that the health of City residents would not be adversely affected by acute inhalation exposure to the chemical vapours released during the early stages of a spill under any of the simulated and unmitigated oil spill scenarios examined. 1) was applied to the smaller-sized spill scenario (i.e., 10 m³ of oil spilled, fully contained within the containment boom). As shown in Figure 4.1 of Appendix A (Intrinsic June 2014; Filing ID</p> <p>Cold Lake Winter Blend (CLWB) diluted bitumen (or dilbit) was chosen to represent the type of oil spilled based, in part, on the fact that CLWB is currently, and is expected to remain, a major product carried by the proposed pipeline. Another factor that contributed to its selection is the fact that the diluent in CLWB is a liquid condensate that is rich in light-end hydrocarbons that are volatile or semi-volatile in nature. The COPC evaluated in the HHRA were determined based on: i) the individual chemical components detected in a bulk liquid analysis of CLWB provided in Appendix A of the Qualitative Ecological Risk Assessment of Pipeline Spills</p>			
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		<p>Technical Report (Stantec Consulting Ltd. December 2013; Filing ID A3S4W9), and ii) each of the individual chemical component's physical and chemical properties, notably those properties, such as molecular weight and vapour pressure, that determine its tendency to partition into air and the ease with which it might volatilize from the oil's surface. The list of COPC was provided in Table 4.3 of the HHRA (Intrinsik June 2014; Filing ID A3Y1E9). Examination of the list reveals that the COPC consisted principally of lighter-end, volatile and semi-volatile hydrocarbons (C1 to C16), including both aliphatic and aromatic constituents. The latter constituents included BTEX (benzene, toluene, ethylbenzene and xylenes), alkyl substituted benzenes, and polycyclic aromatic hydrocarbons. The remaining COPC consisted of various groups of sulphur-containing chemicals. Hydrogen sulphide (H2S) was not detected in the bulk liquid analysis of CLWB. Furthermore, H2S was not detected in the vapours above the surface of CLWB (RWDI Air Inc. June 2014; Filing ID A3Y2D4). As a result, H2S was not evaluated as a COPC in the HHRA.</p>			
3.24(g)	Please provide rationale if any of the above cannot be provided	Refer to the responses to parts a) to f) above.	Please see City's comments on 3.24(e) to (e)(i).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.25(a)	Please describe other potential exposure pathways, for example inhalation of dust, ingestion, and dermal contact, for various spill scenarios. Please provide a detailed assessment of each of the exposure pathways, including assumptions and any other applicable information used for the assessment.	As discussed in Section 4.1.5 “Identification of Exposure Pathways” of the Human Health Risk Assessment (HHRA) of Facility and Marine Spill Scenarios Technical Report (Intrinsik Environmental Sciences Inc. [Intrinsik] June 2014; Filing ID A3Y1E9), the HHRA focused on the nature and extent to which people’s health could be affected by short-term inhalation exposure to the hydrocarbon and other chemical vapours released from the surface of the spilled oil during the early stages of the incident, before the arrival of first responders and the implementation of the emergency and spill response measures described in Volumes 7 and 8A of the Application. The rationale explaining the choice of this exposure pathway as well as the exclusion of other pathways is included as part of the discussion. Additional explanation and discussion of the reasoning behind the choice of exposure pathways can be found in Section 6.0 “Discussion” of the HHRA (Intrinsik June 2014; Filing ID A3Y1E9). Since exposure of people to the hydrocarbons and other chemicals contained in the spilled oil by pathways other than short-term inhalation exposure to the vapours released from the surface of the oil slick would not be expected to occur because of the emergency and spill response measures that would be taken by Trans Mountain, the Western Canada Marine Response Corporation and other spill response agencies in the unlikely event of a spill, a detailed assessment of these other pathways was, and still is, considered to be unnecessary. Further discussion of the	<p>It is the City’s understanding that Trans Mountain has not included in its human health risks assessment all potential exposure pathways that may impact human health and safety as a result of oil spill, due to Trans Mountain’s assessment that there is a low likelihood of an emergency related to the proposed Project.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>	<p>The City of Port Moody’s conclusion that all exposure pathways were not included in the Human Health Risk Assessment (HHRA) of Facility and Marine Spill Scenarios Technical Report (Intrinsik Environmental Sciences Inc. June 2014) (Filing IDs A3Y1E9, A3Y1F0, A3Y1F1 and A3Y1F2) is incorrect.</p> <p>As outlined in the response to the City of Port Moody IR No. 2.3.25a (Filing ID A4H8G7), the only exposure pathway for which reasonable opportunity exists for people in the area to be exposed to either the spilled oil itself or chemicals released from the spilled oil in the unlikely event of an oil spill is through acute inhalation exposure to the hydrocarbon and other chemical vapours released from the surface of the oil slick. This could occur during the early stages of the incident before the arrival of first responders and the implementation of the emergency and spill response measures described in Volumes 7 and 8A of the Application. A review and analysis of the prospect for people to be exposed <i>via</i> other pathways consistently revealed the opportunity for exposure to be low to very low across all of these pathways. The reason for not carrying forward these other pathways as part of the HHRA was because of the low to very low opportunity for exposure that each of these pathways presents.</p>	<p>It is the City’s understanding that Trans Mountain has not included in its human health risk assessment analyses of all potential exposure pathways and their impacts to human health and safety due to Trans Mountain’s assessment view that the prospect for people to be exposed via exposure pathways other than acute inhalation exposure to be low or very low.</p> <p>Please confirm that the City’s understanding as stated above is correct.</p>

		rationale surrounding the selection of the exposure pathways, including the exclusion of pathways other than acute inhalation exposure, is provided in response to City of Port Moody IR No. 2.3.24a.			
3.25(b)	Please provide rationale if the above cannot be provided.	Refer to the response to a) above.	Please see City's comments 3.25(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.26(a)	Please provide Shoreline Protection Plan for Burrard Inlet.	Refer to response to City of Port Moody IR No. 2.3.04d.	<p>The City is of the understanding that there is not, and will not be, a Shoreline Protection Plan for the Burrard Inlet developed pre-incident. Rather, Trans Mountain will rely on the ICS or the Unified Command to develop response strategies in the event of an emergency.</p> <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.26(c)	Based on the shoreline described in the map above, please provide details on how each identified shoreline type can be protected in the event of marine spill or incident, with clear delineation of relative prioritization of each shoreline area.	Refer to response to City of Port Moody IR No. 2.3.04d.	See City's response 3.26(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.26(d)	Please provide a table of the techniques that would be employed to address each type of shoreline and details on the efficacy of the clean-up technique, the conditions or scenarios in which it cannot be employed, alternative clean-up methods, and the equipment needed to successfully execute the technique.	Refer to response to City of Port Moody IR No. 2.3.04d.	See City's response 3.26(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.26(e)	Please demonstrate that Trans Mountain has access to sufficient booms to protect the shoreline of Burrard Inlet at tidal extremes in	Based upon the reference used in the information request it is assumed that the Intervenor is inquiring about conditions in the Burrard Inlet where DNV determined	The response provided does not directly address the City's request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's

	<p>the event of a marine spill or incident.</p>	<p>that the credible worst-case oil spill volume would be 103 m3. The amount of boom required during any spill will depend on many circumstances and not solely on the lineal distance of shoreline, which this question appears to imply.</p> <p>There are two components to this answer.</p> <p>1) As a condition of operating in Canadian waters, the Canadian Shipping Act, 2001 (CSA) requires that all large vessels and all Oil Handling Facilities (OHF), including Trans Mountain's Westridge Terminal have a contractual arrangement with certified oil spill Response Organizations (RO) that maintain a prescribed level of preparedness to respond to a spill on the polluter's behalf, whatever the cause. The CSA 2001 and the current RO and OHF regulations outline the procedures, equipment and resources of response organizations and OHF's for use in an oil pollution incident. OHF's must also meet Oil Handling Facilities Standards, TP 12402. Transport Canada's regional Pollution Prevention Officers enforce the OHF regulations by reviewing their plans for compliance, inspecting the facilities and response resources to ensure an adequate level of preparedness and by attending their exercises.</p> <p>As the Intervenor knows, Western Canada Marine Response Corporation (WCMRC) is the Transport Canada certified spill response organization for the navigable waters of British Columbia. A summary of WCMRC's current and future roles, responsibilities and actions can be found in the Section 5, Table 5.5.3 of Volume 8A (Filing ID A3S4Y6). This table also lists proposed improvements to WCMRC capacity, which includes the capacity to respond to a 20,000-tonne and a future Port Metro Vancouver response base that will be staffed on a 24/7 basis.</p> <p>2) A primary containment boom is always pre-deployed during tanker loading operations at Westridge Marine Terminal. There is sufficient secondary boom on-site to protect the shoreline in the immediate vicinity of WMT.</p>	<p>The City requests a direct, concise, complete and adequate response to its request, or a rationale for not providing a response to its request.</p>	<p>sufficient information and detail for the Board in its consideration of the application and no further response is required</p>	<p>original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>
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		<p>Trans Mountain terminal personnel, with access to pre-staged response equipment and trained to be first responders in the event of an incident, will be on-site at all times during all loading operation. Trans Mountain staff will activate the Westridge Emergency Management Plan, which includes deployment of a secondary boom. Additional WCMRC equipment (including a spill response vessel) is kept at Westridge for quick deployment.</p> <p>As indicated in the response to City of Port Moody IR No. 2.3.04d, Trans Mountain conservatively modeled a large operational spill scenario at the Westridge Terminal based on a tanker loading operation incident that resulted in a 160 m3 oil spill at the dock complex (the calculated credible spill during cargo transfer was identified as 103 m3 by DNV). It is standard operating procedure that the receiving tanker be pre-boomed prior to commencement of the loading operation. As such, 128 m3 was contained within the boom and recovered. For modeling purposes it was assumed that 32 m3 escaped the primary containment.</p> <p>In the simulation, Western Canada Marine Response Corporation (WCMRC) arrives on-site within 1-hour of notification. Over the next 13-hours, WCMRC initiates the following strategies:</p> <ul style="list-style-type: none">• Collection booming at two locations west of the Westridge Marine Terminal• Protective booming at pre-identified sensitive locations in Burrard Inlet• Mobilization of eight skimming vessels• Mobilization of two large temporary storage barges• Mobilization of two 40-tonne mini-barges• Dispatch of vacuum trucks to support recovery and storage activities <p>Within 8-hours after the spill began, about 11 m3 of the hypothetical 32 m3 of oil that escaped the boom was recovered on the water. Thereafter, passive sheen management with sorbent products was used as a viable but unquantifiable countermeasure for the response organization to employ.</p>			
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		Section 5.5.2, Table 5.5.3 of Volume 8A of the Application (Filing ID A3S4Y6) provides a summary of enhanced planning standards for marine spill response proposed as part of the Project that would further augment the capabilities described above.			
3.26(f)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to parts a) to e) above.	Please see City’s comments 3.26 (a) to (e).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.27(a)	<p>Please provide a list of all limitations to the marine spill responses that have been/are being developed, in particular:</p> <ul style="list-style-type: none">List all scenarios where responses may be delayed and the potential causes of such delays (e.g. weather, human error, etc)List the thresholds (amount spilled, spill location, product characteristics) at which WCMRC resources will no longer be adequate or effective in 100% cleanup and recovery of the oil spilled in the marine environment.List all environmental conditions at which WCMRC resources will no longer be adequate or effective in 100% cleanup and recovery of the oil spilled in the marine environment, such as weather conditions, water temperatures, etc.	<p>Discussion and Background</p> <p>Based upon the reference used in the information request it is assumed that the Intervenor is inquiring about conditions in the Burrard Inlet where DNV determined that the credible worst-case oil spill volume would be 103 m3.</p> <p>To be effective, on-water oil spill response must take a <i>systems</i> approach. Selected countermeasures must be appropriate for the physical properties of the oil, its fate and behaviour, and the environmental conditions where the release occurred. This requires the deployment of adequate and well-maintained equipment by a knowledgeable crew managed under a formal incident management system comprised of key stakeholders from industry, government and communities. The safety of first responders and other response personnel is a key concern and every effort is made to ensure that these persons are not put at risk. The spill location and the environmental conditions during the response influence operational effectiveness. Winds, waves and currents (tidal or wind-driven) will affect the following mitigation efforts:</p> <ol style="list-style-type: none">1) Ability to quickly reach the spill site;2) Deployment of booms to contain, concentrate and reduce the spreading of spilled oil;3) Mechanical skimming to recover oil from the surface of the water; and4) Transfer recovered oil from smaller skimming vessels into sufficient larger units for temporary storage. <p>Operational safety depends on the human element to exercise prudent seamanship and safe management of personnel and equipment. Under</p>	<p>While the response provided some specific limitations of effective marine response due to weather and environmental conditions, it neglects to discuss or comment on the impacts of other limitations (e.g., human factors). Please comment specifically on all other factors, and if none other than the ones listed exist, please provide a direct comment as such.</p> <p>Additionally, the response neglected to address the request with relation to the thresholds at which WCMRC resources will no longer be adequate or effective in 100% cleanup and recovery of the oil spilled in the marine environment, specifically those limitations arising from the capacity of the equipments themselves.</p> <p>The City requires a complete and adequate response to its request.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required</p> <p>The request is for new information. Seeking more specific information or more details in the motion to compel full and adequate responses is essentially a request for new information and is not permitted under Ruling No. 33. Rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.</p>	<p>The request is not for new information. The original request sought for a list of <u>all limitations</u> to the marine spill responses that have been/are being developed.</p> <p>Trans Mountain’s response neglects to discuss <u>all limitations</u> and other requests specified in the original information request, as stated in the City’s Motion.</p> <p>The City requires Trans Mountain to provide a full and adequate response to its information request.</p>

		<p>the circumstances, field supervisory personnel and vessel captains are given wide discretion in determining safe working conditions for deploying equipment and conducting operations. Vessel Masters are ultimately responsible for the safety of the craft, the crew, and to prevent further harm to the environment.</p> <p>When environmental conditions temporarily limit on-water response operations, the incident command will engage resources from other key areas to maintain positive momentum on the spill cleanup, for example:</p> <ul style="list-style-type: none">• Trajectory analysis and spill modeling can be used to anticipate the spreading of the oil;• Overflight information, generated by oil slick sensors aboard the regionally dedicated aircraft operated by Transport Canada’s National Aerial Surveillance Program (NASP), can be used to identify the locations of significant oiling and to aid in the selection of appropriate response strategies;• Protective booms can be deployed at other accessible locations to reduce or mitigate the impact of oil forecast to reach those locations;• Shoreline response personnel can be dispatched along with supplies and resources from other locations; and• Optional response tactics such as the use of dispersants and in-situ burning opportunities can be explored with regulators. <p>The key criteria to meeting realistic maximum operating limits for on-water recovery is to pre-assign appropriately sized resources at selected locations along the entire tanker shipping route from Westridge Marine Terminal to Buoy J. Such resources must take into account the differing water and weather conditions under which they may be deployed. Transport Canada (TC) in consultation with the Canadian Coast Guard</p>			
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		<p>(CCG), Environment Canada and other stakeholders codified response equipment capability according to the environment in which it will operate. These Transport Canada equipment designations of shoreline, sheltered and unsheltered water capability will drive resource selection and its appropriate placement at the various bases to be sited along the route.</p> <p>Equipment Criteria</p> <p>There have been continual improvements in the design of spill response equipment that have made them, as well as the entire response system, more effective in different weather conditions, as noted in Technical Report 8C-12 S12, Volume 8C, Review of Trans Mountain Expansion Project Future Oil Spill Response Approach Plan Recommendation on Bases and Equipment (WCMRC 2013, Filing ID A3S5I9). Nevertheless, the effectiveness of booming and skimming operations will be reduced under the influence of increasing winds, waves and currents. Winds up to 16 knots (Beaufort Scale 4) and wave heights up to 1-meter are accepted by Transport Canada and others as the limits to which response is fully effective and it becomes less so as those parameters are exceeded and subsequently ceases to be effective. Table 2.3.27a–1 below shows the optimal working range of different mechanical on-water response equipment used as part of response planning guidelines; actual conditions may allow equipment – particularly larger equipment – to operate beyond these guidelines.</p> <p>Operational thresholds may be increased through the deployment of more recently developed dual purpose containment and recovery devices such as Current Busters™ that offer more effective countermeasures under stronger wind, wave and current conditions. Additionally, experiences in</p>			
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		<p>other locations have shown that during deteriorating weather conditions, large storage vessels can be used as extended deployment platforms to shelter smaller on-water assets so that those units may continue to remain close to the response site awaiting improved conditions to resume operations.</p> <p>Conventional general purpose booms – the most commonly used floating barriers designed to contain, concentrate and reduce the spreading of spilled oil – become less effective when moored in areas with higher tidal currents. To restore some of the performance lost to fast moving water, tactics can be adjusted from containment to the angled diversion of oil to a collection point. Likewise, additional deployments of boom (for example, double booming techniques) and use of purpose-designed booms have been shown to increase effectiveness. Evidence from other responses have indicated that Current Busters™, with their high rates of encounter, have demonstrated enhanced performance over conventional booms in containing and recovering oil in higher current speeds. Such techniques have been used as part of a systems based spill response outlined in Technical Report 8C- 12 S13, Volume 8C, Trans Mountain Expansion Project Oil Spill Response Simulation Study, Arachne Reef and Westridge Marine Terminal (EBA 2013, Filing ID A3S5J0).</p> <p>Westridge Terminal Westridge Terminal facility already incorporates many features that allow rapid oil spill response under an existing emergency response plan. This includes the pre-deployment of a dedicated boom around all tankers while these are being loaded. Additional booms are stored at Westridge and can be deployed quickly. A Western Canada Marine Response Corporation (WCMRC) skimmer is also</p>			
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		<p>moored at Westridge for rapid response. The Westridge facility response plan, including spill response capacity, will be enhanced as part of the Project.</p> <p>Response Limitations – Reduced Visibility Response operations during darkness and periods of reduced visibility can continue using enhanced illumination and special tools such as forward-looking infrared cameras (FLIR), s-band radar, x-band radar, etc. However, the overall effectiveness of response during such periods will be less than response during the daytime without impaired visibility.</p> <p>Response Limitations – Wind and Wave As a conservative approach, parameters detailed in Table 2.3.27a–1 was compared with sea and swell wave data to assess the annual percentage of time that effective oil spill response may be possible in the marine study area. This assessment appears below in Table 2.3.27a–2.</p> <p>Summary and Conclusion In Table 2.3.27a–2, data was analyzed for 11 wind stations and 3 wave stations along the shipping route and used to compute the percentage of time that response effectiveness might be impaired by environmental conditions. The analysis found that the annual percentage of time that oil spill response in the marine environment may be halted, or limited in effectiveness due to environmental conditions such as wind, waves and tides/currents varies based upon the location along the shipping route. This information is further summarized by consolidating multiple sample stations into shipping route segments with simple averages displayed at-a-glance in Table 2.3.27a–3. Annually there are generally a higher percentage of not effective response periods in the western</p>			
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		<p>portion of the shipping route. The location near Race Rocks is identified as an area of higher periods of stronger winds and the western entrance to the Juan de Fuca Strait is more prone to wave action, which could potentially hinder effective response. Based upon the low annual percentage incidence of strong winds compared with the high annual percentage incidence of high waves at Neah Bay (see response to NEB IR No. 1.65a) it can be assumed that the majority of waves found offshore at the western entrance to the Juan de Fuca Strait are caused by swell and, unless there is accompanying strong winds, effective response may be possible, especially by deploying equipment from larger platforms, as proposed in ref (i) A3S5I9, which forms part of the Application.</p>			
3.27(b)	<p>Please provide evidence to support the determination of the above thresholds and limitations.</p>	<p>This information has been provided in the response to City of Port Moody IR No. 2.3.27a.</p>	<p>Please see City's comments on 3.27(a).</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>
3.27(d)	<p>Please provide rationale if the above cannot be provided.</p>	<p>Refer to the responses to parts a) to c) above.</p>	<p>Please see City's comments on 3.27 (a) and (b).</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required</p>	<p>Please see City's comments on 3.27 (a) and (b)</p>

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.28 (a)	<p>Please provide a clear, concise regional EMP for the Burrard Inlet and the Strait of Georgia that clearly describes:</p> <ul style="list-style-type: none">• Situations, planning assumptions, and limitations;• Roles and responsibilities of all parties that may be involved in a marine oil spill;• Operation details (including phases of emergency management, direction and control, emergency operations facilities);• Command and control systems;• Communication strategy (including communication to the public, municipalities, and other stakeholders);• Plan development, maintenance and implementation;• Mutual aid agreements; and• Maps, with specific maps of vulnerable natural and other assets identified for prioritized protection	<p>Trans Mountain wishes to clarify Kinder Morgan Canada (KMC) emergency response planning is specifically for the Trans Mountain pipeline and facilities. Marine response planning beyond Westridge Marine Terminal is being undertaken by the Transport Canada certified Response Organization for the navigable waters of British Columbia (BC): Western Canada Marine Response Corporation (WCMRC).</p> <p>Kinder Morgan Canada (KMC) acknowledges the interest of Intervenor’s to seek more information about the existing EMP documents, and reference materials related to the Trans Mountain Pipeline system, which is why KMC filed a redacted copy of the existing Emergency Response Plans publicly (Filing ID A63573). In Ruling No. 50 (Filing ID A4G5I9) the NEB determined that it was “satisfied that sufficient information has been filed from the existing EMP documents to meet the Board’s requirements at this stage in the process.”</p> <p>Future Westridge Oil Pollution Emergency Plan, Westridge Operator’s Handbook and Emergency Response Plan will be developed in a manner consistent with the National Energy Board’s (NEBs) draft conditions and shall be submitted to relevant Authorities at least six months prior to the project entering service. The completed documents will be integral to KMC’s Emergency Management Program (EMP) documents. For this purpose Trans Mountain commits to engage with Metro Vancouver local governments / communities on the development of these documents and plans in a respectful, transparent and collaborative manner.</p>	<p>Based on the response, the City is of the understanding that Trans Mountain will not provide any specific details of a regional Emergency Response Plan, specifically with relation to the Burrard Inlet and the Strait of Georgia, though the project tankers will be traversing through the areas with significantly increased frequencies.</p> <p>The rationale for not providing the response plans is due to Trans Mountain’s assessment that its legal obligations with relation to emergency response will be limited to the Terminal and pipeline, even though the result of the proposed Project’s approval will significantly impact marine traffic in the region.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>	<p>In accordance with Board Ruling No. 31 and Ruling No. 50(Filing IDs A63036 and A65390), the response was full and adequate. Trans Mountain has provided sufficient information to meet the Board’s requirements at this stage in the process and no further response to the IR is required. No further response, or summary of Trans Mountain’s response, is required</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<p>Once completed, these documents may contain information, which is proprietary, and have a sensitive nature, due to security concerns. The completed documents will therefore not be publicly available. However upon request, Trans Mountain will provide copies of the documents to local, provincial and federal authorities that satisfy the following conditions:</p> <ul style="list-style-type: none">• The authority has/is willing to participate in consultations with KMC;• The authority could be called upon to respond to an event associated with the Trans Mountain pipeline system within their jurisdiction;• The authority has requested a copy and/or requires a copy by legislation, and• The authority has signed a confidentiality agreement and/or has a method by which the document can be filed confidentially. <p>Trans Mountain’s Westridge plans may not address all areas of the Burrard Inlet and Trans Mountain encourages Metro Vancouver local governments / communities to participate with WCMRC on the development of oil spill emergency response plans including Geographic Response Strategies (GRS) and Geographic Response Plans (GRP) for the Burrard Inlet and, based upon the community’s interest, other locations in the Salish Sea.</p> <p>Trans Mountain has been engaging with communities along the pipeline and marine corridor since 2012 and the Project team will continue to engage, share updated project information and address concerns about the proposed Trans Mountain Expansion Project as they arise.</p>			
3.28	Please provide evidence of	As stated in part a) Trans Mountain wishes to	Based on the response provided, it is	For clarity, Trans Mountain is providing	Based on the response provided, it is the

(b)	<p>consultation and collaboration with local municipalities, including the City of Port Moody, on the development of the regional EMP; including any signed mutual aid agreements available.</p>	<p>clarify Kinder Morgan Canada (KMC) emergency response planning is specifically for the Trans Mountain pipeline and facilities. Marine response planning beyond Westridge Marine Terminal is being undertaken by the Transport Canada certified Response Organization for the navigable waters of British Columbia (BC): Western Canada Marine Response Corporation (WCMRC).</p> <p>WCMRC planning and engagement is occurring now as part of their operational planning, and is not specific to the needs of just TMEP.</p> <p>WCMRC initiated a coastal mapping pilot program in Burrard Inlet in 2014 on behalf of its members. The program involved identifying coastal resources that are at risk in the event of an oil spill. Geographic Response Strategies were updated for sensitive resources that were identified. As part of the program, WCMRC engaged with emergency planners in the surrounding municipalities. The coastal mapping program is being extended to the entire tanker shipping route and will continue into 2015.</p> <p>Trans Mountain will commit to engaging with Port Moody in the review of the Westridge Emergency Response Plan. Furthermore Trans Mountain will support WCMRC to engage with communities such as Port Moody as part of WCMRC's planning efforts with marine communities. Some joint initiatives, as indicated in the response below, have already been identified for Spring 2015.</p> <p>Trans Mountain has gathered feedback and concerns from the beginning of the Project and this effort continues. Emergency planning and response have been key areas of concern in both pipeline and marine communities since engagement for the Project began in May 2012. To address this concern, Trans Mountain initiated</p>	<p>the City's understanding that consultation with the City of Port Moody regarding Trans Mountains' Westridge Marine Terminal EMP consists of the attendance of a representative from the City of Port Moody in a 4-hour workshop.</p> <p>Please confirm the City's understanding as articulated above.</p>	<p>the following additional information.</p> <p>The City of Port Moody has been included in the two phases of Emergency Response Management (ERM) engagement efforts to date. The first phase was initiated in 2013, the second phase was initiated in September 2014. As stated in the original response, a Port Moody representative attended the workshop with the Regional Emergency Planning Committee (REPC) as part of the first phase of engagement in December 2013. Also as indicated in the original response, the next phase of engagement initiated in September 2014 also included an invite to the Tri Cities to participate in a scenario discussion. This meeting was scheduled for December 11, 2014 but subsequently postponed at the City of Coquitlam's request. Trans Mountain has committed to delivering this discussion in spring of 2015.</p> <p>In addition to the phases of ERM engagement, the TMEP project lead for Emergency Response met with the Fire Chief for the City of Port Moody on September 11, 2014 as indicated in the Consultation Update #3. filed as part of response to NEB IR No. 3.005a Attachment 1 (A65693)</p>	<p>City's understanding that consultation with the City of Port Moody regarding Trans Mountains' Westridge Marine Terminal EMP consists of the attendance of a representative from the City of Port Moody in a 4-hour workshop and one meeting between a Trans Mountain representative and the Fire Chief of the City of Port Moody.</p> <p>Please confirm the City's understanding as stated above.</p>
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		<p>the first two phases of a series of Emergency Management Stakeholder Workshops for emergency planners and first responders beginning in September 2013 and continuing through 2014. Further engagement on emergency response is being planned for 2015 in a manner consistent with the NEB’s draft conditions 42, 49, 50, 51, 52, 53 54, 56 and 60 (Filing ID A3V8Z8). Summaries of engagement findings can be found in Table 1.7.3 of Volume 3A (Filing ID A3S0R5), Section 1.5.2 of Consultation Update No. 1 & Errata (Filing ID A3Y1G4), Section 1.5.1 of Consultation Update No. 2 (Filing ID A3Z8J2) and Section 1.7 of Consultation Update No. 3 – Part 1, Public Consultation was filed with the NEB on February 3, 2015. Refer to NEB IR No. 3.005a - Attachment 1 (Filing IDs A4H1W2, A4H1W3, A4H1W4, A4H1W5, A4H1W6, A4H1W7).</p> <p>Port Moody is an important stakeholder and is also a neighbour to Trans Mountain operations at Westridge Marine Terminal and Burnaby Storage Terminal located in Burnaby. Emergency response is one of the key topic areas identified in conversations with Port Moody as highlighted in the response to City of Port Moody IR No. 2.2.1a.</p> <p>A representative of the City of Port Moody attended a four-hour workshop held with the Metro Vancouver Regional Emergency Planning Committee (REPC) on Dec 6, 2013 at E-comm Emergency Communications building in Vancouver, BC. Refer to City of Port Moody IR No. 2.3.28b-d - Attachment 1 (RSVP list for Regional Emergency Planning Committee workshop December 6, 2013) for attendance record. At the workshop an overview of current TMPL operations, the Community Awareness and Emergency Response (CAER) program as well as an overview of the proposed plans for expansion and a discussion of next steps for engagement</p>			
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		<p>were presented. Refer to City of Port Moody IR No. 2.3.28b-d - Attachment 2 (PowerPoint presented to REPC on December 6, 2013) for a copy of the PowerPoint presented on December 6, 2013. Refer to City of Port Moody IR No. 2.3.28b-d - Attachment 3 (Summary of TMPL Emergency Response Plan) for the summary of the TMPL Emergency Response Plan (ERP) that was distributed at this and other similar regional workshops held along the pipeline corridor.</p> <p>In October of 2014 Trans Mountain attempted to set up a scenario discussion with emergency managers and first responders from Coquitlam who requested all three communities of the Tri Cities be included because of mutual aid agreements between them (Port Moody, Coquitlam and Port Coquitlam). The scheduled session date of December 11, 2014 was postponed to spring 2015 at the request of the City of Coquitlam, in part so that both land based and water based spill scenarios could be discussed. Please refer to City of Port Moody IR No. 2.3.28b-d Attachment 4 (Email correspondence from City of Coquitlam to postpone EMSW scenario discussion) for related correspondence. Trans Mountain shall focus on delivering a land based spill scenario discussion for the Tri Cities in the spring of 2015. Trans Mountain has also contacted Port Metro Vancouver and WCMRC to pursue meeting dates in April 2015 for water based spill scenario discussions with the Tri Cities as requested (i.e. Fraser River, Burrard Inlet). Inputs from these sessions will help to inform the draft of the new ERP for TMEP</p> <p>Consultation Process for the new EMP KMC acknowledges the City of Port Moody's interests and concerns about consultation opportunities for the updated EMP for the Project. Trans Mountain remains committed to safety and</p>			
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		<p>it is its goal to build trust and good relationships with the communities where it operates to ensure emergency planning for all parties can continue.</p> <p>The EMP Consultation process is outlined, in broad terms, below.</p> <p>The Application, Volume 7, Section 4.8 (Filing ID A3S4V5) outlines the process to enhance Kinder Morgan Canada’s (KMC) existing emergency management programs (EMP) as they relate to the Trans Mountain Pipeline system to address the needs of the Project. The final programs will be developed in a manner consistent with the National Energy Board’s (NEB or Board) draft conditions related to emergency response (Filing ID A3V8Z8).</p> <p>Since the updated EMP depends on the final detailed design of the Project, a process which will not be carried out unless the Project receives approval and until KMC has an opportunity to review the conditions of such approval, the updated EMP cannot be provided during the NEB’s regulatory review of the Project. However, to ensure affected parties have the opportunity to express concerns and provide input which will inform the updated EMP, KMC will conduct a consultation program as part of developing the updated EMP as described in the NEB draft conditions 42, 49, 50, 51, 52, 53 54, 56 and 60 (Filing ID A3V8Z8) related to emergency management.</p> <p>Following receipt of a Certificate of Public Convenience and Necessity for the Project, KMC will file with the NEB a consultation plan related to KMC’s EMP review that will include consultation scope, objectives; preliminary lists of regulatory authorities, communities, Aboriginal groups with whom KMC will engage, and a preliminary list of</p>			
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		<p>consultation locations and timing, as well as any other information that the NEB requires. The consultation plan will describe the methods that will be used to track commitments made during consultation and to incorporate them into KMC's EMP, including its Emergency Response Plans. As part of this program KMC will periodically file reports with the NEB on progress of its EMP review including summaries of interested parties consulted and how their comments were considered.</p> <p>KMC will file with the NEB the revised Emergency Response Plan for the pipeline as part of the approval conditions for the Project. The plan will demonstrate KMC's ability to prepare for, respond to, recover from, and mitigate the potential effects of emergencies of any type related to the Trans Mountain Pipeline system. Filing of the Emergency Response Plan will include, for the NEB's consideration, a final report on the consultation process as well as confirmation that an independent third party has reviewed and assessed the Emergency Response Plan and that KMC has considered and incorporated the comments generated by the independent review and assessment into the plan.</p> <p>Ultimately, updates to the EMP incorporating feedback from consultation activities must result in an EMP that continues to meet the requirements of the <i>National Energy Board Onshore Pipelines Regulations</i> (2013) (OPR). As it does for the existing system, the OPR provides lifecycle regulation for all aspects of the Project operation including requirements for emergency response programs. KMC must maintain and update the EMP throughout the lifecycle of the expanded Trans Mountain Pipeline System. As well, throughout the life of the expanded system, NEB staff will continue to conduct emergency</p>			
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		<p>response exercise evaluations and emergency procedures manual reviews to confirm that companies are prepared to anticipate, prevent, manage, and mitigate emergency situations.</p> <p>Next Steps in 2015 For the next phase of EMSW engagement (Phase 3 in 2015) Trans Mountain will provide local governments with opportunities to review and provide input to the draft emergency plans for the proposed expansion. Further details of the consultation plan for the ERP program will be filed with the NEB at least 60 days prior to construction as per draft Condition #42 (Filing ID</p> <p>Trans Mountain is willing to meet with community officials such as pertinent emergency response personnel in communities along the pipeline corridor who have questions or concerns about the development of the ERP for the proposed expansion. A3V8Z8).</p> <p>Summary of New Commitments:</p> <ul style="list-style-type: none"> • Trans Mountain commits to engagement on emergency response in a manner consistent with the NEB's draft conditions 42, 49, 50, 51, 52, 53, 54, 56 and 60 (Filing ID A3V8Z8). This is being planned for 2015. • Trans Mountain commits to engaging with Port Moody in the review of the Westridge Emergency Response Plan 			
3.28 (c)	Please provide rationale if such plan cannot be developed prior to the end of the Hearing process.	Referenced in response b.	Please refer to City's comments on 3.28 (a) and (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.28 (d)	If Trans Mountain is unable to provide such Plan, please indicate Trans Mountain's commitment and/or	Referenced in response b.	Please refer to City's comments on 3.28 (a) to (c).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original

	support for the development of such Plan for the Burrard Inlet/Strait of Georgia region, specifying the level of specific resources that Trans Mountain will provide.			and detail for the Board in its consideration of the application and no further response is required.	response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
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IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.29 (a)(i)	If equipment is not a WCMRC resource, please identify and provide evidence of mutual aid agreement.	Not directly referenced.	No response was provided. Please provide a full and adequate response to the City's request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.29 (b)	Please provide a map of all of the identified resources from (a)	Refer to the response to City of Port Moody IR No. 2.3.29a.	An aggregate map of all resources is not found in the referenced document in the response related to 3.29(a). The City requires a summary map of the locations of all resources available with Trans Mountain and WCMRC (existing and proposed) that can be deployed for an incident related to the Project and Project tankers.	Please see the attached PDF document, <i>At-A-Glance South Coast</i> , for a listing of WCMRC's current local response resources. For a discussion of the proposed enhancements to WCMRC's response regime to support the Project, please see Application Volume 8C, TERMPOL Reports, TR 8C-12 S12 – <i>Review of Trans Mountain Expansion Project Future Oil Spill Response Approach Plan Recommendation on Bases and Equipment</i> (Filing ID: A35519). WCMRC invites the City of Port Moody to meet with them to review the products of their Coastal mapping system.	The response provided does not address the City's request, which is seeking for a map. The map being requested is an aggregate map identifying locations of all resources. The City reiterates that it requires a full and adequate response to the City's IR No.2 request.
3.29 (c)	Please map out the coverage of all of the identified resources from (a), differentiating of 30 minute/1 hour/2 hour reaches.	Refer to the response to City of Port Moody IR No. 2.3.29a.	See City response 3.29(a) and (b).	Please see City of Port Moody Motion IR No. 3.29 (b) .	Please see City's comments for 3.29(b)
3.29 (d)(i)	Please provide details of the protocols and methods of two-way communication to all municipalities in the event of a large oil spill in the Burrard Inlet that affects multiple municipalities, including the City of Port Moody.	WCMRC is always accessible by telephone and in a ready state. Currently, WCMRC maintains a 24-hour per day, 7-day per week standby system such that a WCMRC operational person is on duty supported by other WCMRC personnel and resources. WCMRC maintains contact information for WCMRC personnel, advisors, government agency personnel, local contacts for area plans, FOSET members/vessels, contractors, suppliers, custodians and clients	The response is inadequate and the City requests a full and adequate response. The information requested is specific to the protocols and methods of <u>two-way communication</u> to all <u>municipalities</u> in the event of a <u>large oil spill</u> , which is not specifically provided in the response.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>(member/non-members) and mutual aid personnel. WCMRC will call out response personnel and organizations as required for an appropriate response.</p> <p>Public and private communication networks are capable of total coverage throughout the spill operating area. The Canadian Coast Guard provides public VHF radio capabilities that encompass over 98% coverage on the BC coast. Utilizing a network of fixed and portable receivers, WCMRC operates its own secure licensed UHF radio frequencies and coastal repeater system. For small spills, cell phones and normal vessel radio communications equipment will be sufficient to direct and coordinate on site cleanup. All response vessels have both fixed and portable VHF and UHF radio equipment with dedicated channels for routine communication among vessels. Each response base and the larger vessels will also have Iridium satellite phones.</p>			
3.29 (d)(ii)	<p>Please provide standards on the roles of representatives from multiple municipalities in the EOC and Unified Command, including how municipal representatives are integrated into the EOC with Trans Mountain, WCMRC, and other government agencies. Please note that each municipality have their own interests and expertise and cannot necessarily represent each other in the event of an emergency</p>	<p>Although the information requested is not within the scope of this proceeding and not relevant to the NEB's List of Issues, Trans Mountain offers a response to your question in City of Port Moody IR No. 2.3.03b.</p>	<p>The response is inadequate and the City requests a full and adequate response.</p> <p>The request directly relates to emergency response and NEB's List of Issues identified in the Process.</p> <p>The response for request 3.3(b), which Trans Mountain referred to, does not provide the details on the roles of local governments in an emergency related to the proposed Project, including but not limited to: the municipalities' roles in the ICS, Unified Command, and the Trans Mountain EOC, as well as the integration between the Trans Mountain EOC and local government EOCs, if local government EOCs were to be activated.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.</p>
3.29	<p>Please describe how these standards</p>	<p>Although the information requested is not</p>	<p>See City comments on 3.29(d)(ii).</p>	<p>In accordance with Board Ruling No. 33</p>	<p>Trans Mountain's response</p>

(d)(iii)	may be different in the event when the spill is caused by another Responsible Party or addressed by another Response Agency.	within the scope of this proceeding and not relevant to the NEB’s List of Issues, Trans Mountain offers a response to your question in City of Port Moody IR No. 2.3.03b.		(Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
3.29 (e)	Please provide a rationale if any of the above cannot be provide.	Refer to the responses to parts a) to d) above.	Please see City’s comments on 3.29 (a) to (d)(iii).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comments on 3.29 (a) to (d)(iii).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.30(a)	Please identify what strategies and/or pre-established measures would be utilized to minimize or suppress the release of toxic smoke plumes.	The response to City of Surrey IR No. 1.4f (Filing ID A3X6A5) describes initial actions to any incident, which includes a fire at one of the facilities or on a spill, and the response to BROKE IR No. 1.9f (Filing ID A3Y2D3) describes the air quality monitoring program.	The response provided was not in accordance to Procedural Direction No.9, which states that “Trans Mountain must provide a full response to each IR; not merely cross-reference a response to a similar question asked in January 2015 by the Board or an intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document.”	<p>In the unlikely event of a pipeline release, Kinder Morgan Canada Inc. (KMC) immediately shuts down the pipeline and allows the pressure to dissipate, thus stopping further release of petroleum. When this shut down occurs there are a number of things happening at the same time by different individuals to ensure a timely response to the incident.</p> <p>These simultaneous actions are:</p> <ul style="list-style-type: none">• Local emergency services are contacted immediately and trained KMC technicians would be dispatched to the location to help secure the area and commence air monitoring to ensure air quality for those in the immediate vicinity.• KMC consults with the local authority to determine the best course of action to protect the public.• Control Centre issues an Emergency Response Line (ERL) notification to the Incident Management Team (IMT). Upon notification the IMT calls the conferencing line to get information about the incident and begin pre-assigned response duties.• Immediately following the ERL conference call KMC notifies the Transportation Safety Board of Canada (TSB) and the National Energy Board (NEB) through the single TSB emergency telephone number when required. Depending on severity and incident location, various other regulatory agencies (BC Provincial Emergency Program, Federal and Provincial Fisheries agencies, etc.) will also be contacted.• Information Officer – begins preparing an initial media statement and communication plan• Liaison Officer – begins notifications to other groups not included in the above notifications. Notifications may include, but are not limited to:<ul style="list-style-type: none">o Additional Liaison Team Memberso Local Emergency Services/Program (if not already notified)	<p>The response does not provide the information requested on the strategies and/or pre-established measures to be utilized to minimize or suppress the release of toxic smoke plumes; instead, the response discusses the measures to stop further release of petroleum.</p> <p>Please confirm whether or not Trans Mountain has a separate strategy to address potential releases of toxic smoke plumes, and if so, specify the details of such plan, as originally requested in the City’s information request.</p>

				<ul style="list-style-type: none">o Affected First Nations communitieso Elected Officialso Provincial or National Parks (if impacted)o Health Authorities (if not already notified)o Provincial Environment Ministry (if not notified by Provincial Emergency Program) <ul style="list-style-type: none">• Logistics Section Chief – begins identification of resources required for the response and ordering supplies and equipment• Operations Section Chief – begins field operations, containment and clean-up• Planning Section Chief – begins planning recovery operations and contacting team members required including the Environmental Unit Leader. <p>The Application, Volume 7, Section 4.8 outlines the process to enhance Kinder Morgan Canada’s (KMC) existing emergency management programs as they relate to the Trans Mountain Pipeline system to address the needs of TMEP. The final programs will be developed in a manner consistent with the NEB’s draft conditions 42, 52, 53 and 54.</p>	
3.30(b)	Please provide an assessment of the potential health and social impacts of toxic smoke plumes.	Trans Mountain commissioned risk assessments of the Burnaby Terminal, the Westridge Marine Terminal and the Westridge Marine Terminal Ship Loading expansion which were filed as Attachment 3 (Filing ID A3W9S5), Attachment 4 (Filing ID A3W9S6) and Attachment 5 (Filing IDs A3W9S7 and A3W9S8), respectively, in response to NEB IR No. 1.98a (Filing ID A3W9H9). The risk assessments identified the possible accidents or upset events (including fire related to a major tank spill and fire related to a spill in the boomed area around vessels while loading) for the terminals and the associated consequences. The risk assessments evaluated the potential impact on the nearby areas of a number of “worst-case” scenarios (i.e., hazards) and the probabilities of their occurrence. These assessments and findings will be used to inform the planned enhancements to Trans Mountain’s Emergency Management program and response	The response provided focuses on the preventative measures of fire and its associated consequences related to the proposed Project but neglects the purpose and focus of the request, which is for an assessment of the potential health and social impacts of toxic smoke plumes if one should occur.	As stated in the response to City of Port Moody IR No. 2.3.30b (Filing ID A4H8G7), the many variables and uncertainties surrounding any particular incident prevents Trans Mountain from defining specific effects to the public that would result from a fire or explosion at Project facilities, including the Westridge Marine Terminal. Adverse effects could include: effects on property; physical health effects; effects on local infrastructure; effects on businesses; effects on emergency, protective and social services; real and perceived effects on biological resources used by residents for subsistence, cultural, commercial and recreational purposes; effects on tourism and recreation; effects on commercial harvest; and effects on mental health and community well-being. The response to City of Port Moody IR No. 2.3.30b (Filing ID A4H8G7) further described the potential health effects that could result from smoke inhalation. From a practical perspective, if a fire or explosion were	Based on the response provided, the City understands that Trans Mountain has not completed any study on the potential health and social impacts of toxic smoke plumes. Please confirm that the City’s understanding, as stated above, is correct.

	<p>plan. The assessments were conducted without consideration of mitigation measures, such as the effective implementation of Trans Mountain’s emergency response plan. According to the findings of the risk assessments, the overall risks to the public beyond the Burnaby Terminal and Westridge Marine Terminal property lines posed by the worst- case scenarios at both terminals are deemed to be within the acceptable level of risk criteria as set out by the Major Industrial Accidents Council of Canada.</p> <p>Trans Mountain (Kinder Morgan Canada or KMC) has procedures in place to ensure that fires will not occur. As described in Section 8.2 of Volume 4C of the Application (Filing ID A3S1L1), the safety of the facilities in the expanded Trans Mountain pipeline (TMPL) system will be assured through the enhancement and application of the existing KMC Facility Integrity Management Program (FIMP). The FIMP will be administered by the KMC Technical Services Department and will be implemented with the assistance of the KMC field operations team.</p> <p>Like the KMC Pipeline Integrity Program, the FIMP has processes for the identification of all integrity hazards that could affect the safe operation of facilities, the assessment for these hazards, and the management of the hazards to prevent and mitigate the impact from releases of petroleum and from petroleum fires. The FIMP includes a continual assessment process that will ensure the completion of all maintenance and testing activities required for the effective operation of all preventative and consequence reduction systems.</p> <p>Given the many variables and uncertainties surrounding any particular incident, there is no credible way of defining potential community health and social impacts. KMC’s Incident Command System (ICS) for emergency response is designed to enable effective, efficient incident</p>		<p>to occur, communities that are impacted by the incident would be invited to participate in Unified Command established as part of the Incident Command System for emergency response. This allows communities to put forth their objectives and priorities along with other members of Unified Command. It is appropriate that local communities are directly involved in emergency response decision making through Unified Command and to receive real time updates throughout the course of the emergency. This would allow City of Port Moody or others to identify measures to avoid or mitigate effects on the public.</p>	
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		<p>management through integration of facilities, equipment, personnel, procedures, and communications within a common organizational structure. The ICS enables KMC’s incident managers to identify the key concerns associated with the incident, often under urgent conditions, without sacrificing attention to any component of the response. The use of ICS represents organizational best practices and aligns KMC with the world-wide standard for emergency management.</p> <p>The ICS was also designed to be flexible in application to the size of an incident, to enable rapid integration of agencies and personnel into a common management structure, and to minimize duplication of effort. The ICS structure outlines clear roles and responsibilities with respect to emergency response and includes a unified command structure for co-ordination with the multiple levels of government; federal, provincial, municipal, and Aboriginal communities, along the TMPL system. This allows communities to put forth their objectives and priorities along with other members of Unified Command, and to receive real time updates through the course of the emergency. This participation allows communities to identify locally-appropriate measures to mitigate potential social effects, including community health.</p> <p>The KMC Emergency Response Program and response organization is based on a three-tiered response structure that was presented in Table 10.2.1, Volume 4C of the Application (Filing ID A3S1L1) (presented below as Table 2.3.30b-1 for ease of reference). This system relies on a categorization of incidents, wherein each tier is managed by an escalating level of management seniority and authority, with assistance from outside the initial response organization sought on an as-needed basis. KMC’s emergency response procedures provide the flexibility to tailor the</p>			
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		<p>nature and size of the response to the specifics of the incident, which allows for rapid adjustments as an incident evolves. Where appropriate, the KMC incident commander will invite the participation of federal, provincial, and local agencies to form a unified command.</p> <p>Emergency Response Plans (ERPs) have been developed for the existing TMPL system and will be enhanced and implemented on the expanded TMPL system. These plans detail prescriptive procedures, activities, and checklists to ensure consistent response to incidents with the common objective of protecting company personnel and contractors, the public and public property, and the environment.</p> <p>The overall ERP provides a generic response to an incident at any location along the TMPL system, whereas the ERPs for terminals are location-specific. All plans have a common structure and format, and address key elements, including:</p> <ul style="list-style-type: none">• responder health and safety;• internal and external notifications;• spill/site assessments;• spill containment and recovery;• protection of sensitive areas; and• multiple hazards. <p>Each of the plans also includes detailed information on the ICS, legislative background, and documents the approach to training and exercises. The plans provide comprehensive information and are a ready resource for a safe, consistent, and timely response to an emergency or spill. All ERPs also address general requirements for non-spill incidents such as explosions and fires, and include a detailed air monitoring plan that is applied in the event of a spill.</p> <p>Volumes 7 and 8A of the Application further described the emergency and spill response</p>			
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		<p>measures that will be taken as part of a coordinated action to contain and recover the spilled oil and to mitigate potential health and environmental impacts. These measures will further prevent fires from occurring. The coordinated action will extend to consultation among spill response network resources, including Trans Mountain, the Western Canada Marine Response Corporation, Coast Guard authorities and other spill response personnel as well as appropriate municipal, provincial and federal regulatory agencies and local public health authorities to determine the need for and types of measures required to protect people’s health if public health and/or safety were threatened. These timely, coordinated spill response actions will serve, in part, to reduce the prospect for people to be exposed to the spilled oil itself and/or chemicals released from an oil fire.</p> <p>KMC has systems in place to ensure a fire will not occur. However, in the unlikely event that a fire does occur, KMC will provide an effective and rapid response through its existing emergency management systems.</p> <p>According to the United States National Institutes of Health, the burning of crude oil can result in the emission of such chemicals as carbon dioxide, carbon monoxide, lead, nitrogen oxides, particulate matter (e.g., PM10 and PM2.5), polycyclic aromatic hydrocarbons and volatile organic compounds. Fires are known to result in high levels of particulate matter. As a result, people exposed to smoke from a fire may experience the health effects commonly associated with particulate matter. The potential for exposure depends on the magnitude and nature of the fire, the location of the fire, the meteorological conditions at the time of the fire, and the time it will take to respond to that fire. According to the Minnesota Department of Health (MDOH) (2007), individuals who are not</p>			
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		<p>directly involved with fighting an oil fire or who are not in the immediate vicinity of the fire are unlikely to experience exposures that are medically significant. Rather, such individuals may experience mild, transitory effects, including symptoms such as irritation of the eyes and nose, nasal secretions, tearing, hoarseness and shortness of breath. The MDOH (2007) goes on to state that “any initial or early signs and symptoms should resolve in a few days and complete recovery after a limited period of discomfort is expected”.</p> <p>Nevertheless, this confirms that spill and fire prevention, preparedness, and effective response activities will continue to be KMC’s primary focus in order to reduce the probability of an oil spill, and to have adequate oil spill and fire response plans and procedures in place that have proven capability to reduce the magnitude and extent of actual effects on people and the environment.</p>			
3.30(c)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to parts a) and b) above.	See City’s comments for 3.30(a) and (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	See City’s comments for 3.30(a) and (b).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
3.31 (d)	Please clarify all air quality criteria or thresholds that, if triggered or exceeded, will require notification to the public and implementation of additional response measures.	The air quality criteria used to establish threshold values that would trigger public notification in the event of an unplanned release are the United States (US) Environmental Protection Agency (EPA) Acute Exposure Guideline Levels (AEGLs). These thresholds are specific to acute toxicology data that would be representative of an emergency event, rather than other common occupational health and safety thresholds based on chronic exposure.	<p>The response provided only referred to a US regulation that would not apply in Canada. The response did not clarify whether or not there are Canadian regulations and policies on the subject.</p> <p>The City requires a complete and adequate response to the question.</p>	The threshold values used in the event of an emergency were selected by industry experts based on published criteria from the United States (US) Environmental Protection Agency (EPA) Acute Exposure Guideline Levels (AEGLs). The criterion selected are specific to acute toxicology data representative of an emergency event, rather than other commonly accepted thresholds based on chronic exposure. The provincial ambient air quality objectives do not cover all the potential constituents identified to be a risk in the event of public exposure due to an unplanned event.	<p>Based on the response provided, the City understands that there is no Canadian regulation and public notification would be triggered based on the US EPA AEGLs standard.</p> <p>Please confirm that the City's understanding, as stated above, is correct.</p> <p>In addition, the City did not receive a response on the request for information on air quality criteria/thresholds that, if triggered or exceeded, would trigger implementation of additional response measures. The City requests that this information be provided.</p>
3.31 (e)	Please provide details of how air emissions from tanker traffic are monitored, regulated, and enforced.	<p>All commercial vessels trading to Canada must meet applicable standards including using the type of low sulphur fuel oil mandated for vessels to operate in the North America Emissions Control Area. Information on Canada's regulations can be found on the Transport Canada website: https://www.tc.gc.ca/eng/marinesafety/oep-environment-sources-air-1778.htm where it clarifies that:</p> <p><i>International requirements for the prevention of pollution from air emissions are contained in Annex VI of MARPOL, Pollution Convention entitled Regulations for the Prevention of Air Pollution from Ships. Annex VI contains requirements for nitrous oxide (NOx) emissions from diesel engines, sulphur content of fuel, fuel oil quality, emissions of ozone-depleting substances, incinerators, emissions of volatile organic compounds and International Air Pollution Certificates, as outlined below. Annex VI came into force on May 19, 2005.</i></p>	<p>The response does not adequately address the request. The City's request is specifically focused on the methods for monitoring, regulating and enforcing air emissions from tankers. The response contained solely references to regulations (without providing specific details) and does not provide any information on monitoring and enforcement as requested.</p> <p>The City requires a complete and adequate response to the question.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.31	Please provide details of	Refer to response to City of Port Moody IR No. 2.3.31e.	Please see City comments for	In accordance with Board Ruling No. 33	Trans Mountain's response does

(e)(i)	any International, Federal, Provincial, and Local regulations on air emissions from marine tankers and vessels, specifying the standards to be met.		3.31(e).	(Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.31 (e)(ii)	Please provide details on how these regulations are enforced, specifying the monitoring and enforcement agencies, frequency of monitoring, penalties for regulation contraventions.	Regulations are enforced by Transport Canada as part of vessel inspections under Port State Control regulations.	The response lacks information requested as only the enforcement agency is provided. The response provided solely identifies the agency responsible for enforcement but fails to provide details on <u>how</u> regulations are enforced as requested. The City requires a complete and adequate response to the question.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
3.31 (f)	Please provide rationale if any of the above cannot be provided.	Not relevant.	Please see City's comments on 3.31(d) to (f).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 3.31(d) to (f).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.32 (b)	Please provide the full communication procedures and timelines once a report and incident has been identified.	<p>In the unlikely event of a pipeline release, Kinder Morgan Canada Inc. (KMC) immediately shuts down the pipeline and allows the pressure to dissipate, thus stopping further release of petroleum. The maximum response time for field operations personnel to arrive on site is not defined. Field personnel are stationed strategically along the pipeline in order to be able to respond promptly to issues that arise anywhere along the pipeline route. When the shut down occurs there are a number of things happening at the same time by different individuals to ensure a timely response to the incident. These simultaneous actions are:</p> <ul style="list-style-type: none">• Local emergency services are contacted immediately and trained KMC technicians would be dispatched to the location to help secure the area and commence air monitoring to ensure air quality for those in the immediate vicinity.• KMC consults with the local Authority to determine the best course of action to protect the public.• Control Centre issues an Emergency Response Line (ERL) notification to the Incident Management Team (IMT). Upon notification the IMT calls the conferencing line to get information about the incident and begin pre-assigned response duties.• Immediately following the ERL conference call KMC notifies the Transportation Safety Board of Canada (TSB) and the National Energy Board (NEB) though the single TSB emergency telephone number when required. Depending on severity and incident location, various other regulatory agencies (BC Provincial Emergency Program, Federal and Provincial Fisheries agencies, etc.) will also be contacted.• Information Officer – begins preparing an initial media statement and communication plan	<p>The request asked for information on timelines for communication which were not provided in the response.</p> <p>The City requires a complete and adequate response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

		<ul style="list-style-type: none"> • Liaison Officer – begins notifications to other groups not included in the above notifications. Notifications may include, but are not limited to: - Additional Liaison Team Members - Local Emergency Services/Program (if not already notified) - Affected First Nations communities - Elected Officials - Provincial or National Parks (if impacted) - Health Authorities (if not already notified) - Provincial Environment Ministry (if not notified by Provincial Emergency Program) • Logistics Section Chief – begins identification of resources required for the response and ordering supplies and equipment • Operations Section Chief – begins field operations, containment and clean-up • Planning Section Chief – begins planning recovery operations and contacting team members required including the Environmental Unit Leader. <p>The Application, Volume 7, Section 4.8 outlines the process to enhance KMC existing emergency management programs (EMP) as they relate to the Trans Mountain Pipeline system (TMPL system) to address the needs of the Project (Filing ID A3S4V5). The final programs will be developed in a manner consistent with the NEB draft conditions related to emergency response (Filing ID A3V8Z8).</p>			
3.32 (c)	Please provide timelines for executing the procedures identified in the Spill Mitigation Procedures table.	Kinder Morgan Canada Inc. (KMC) acknowledges the interest of the City of Port Moody to seek more information about the existing emergency management program (EMP) documents, and reference materials related to the Trans Mountain Pipeline system (TMPL system) which is why KMC filed a redacted copy of the existing Emergency Response Plans (ERP) publicly. In Ruling No. 50 (Filing ID A4G519) the National Energy Board (NEB) determined that it was “satisfied that sufficient information has been filed from the existing EMP documents to meet the Board’s requirements at this	<p>The City disagrees with Trans Mountain’s use of the Board’s Ruling as its rationale for not providing further information.</p> <p>The intentions of Information Request is to help Intervenors request information of interests that were not available or clear within the documents filed thus far by Trans Mountain. The City interprets that the Board’s ruling in regards to “the existing EMP documents” being adequate “to meet the Board’s requirements at this stage in the process” is that the current filings are currently</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), the requested information has been provided and Trans Mountain’s response is full and adequate. As noted by the Board in Ruling No. 33, if an Intervenor disagrees with the answer, rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests..

		<p>stage in the process.”</p> <p>The Application, Volume 7, Section 4.8 outlines the process to enhance KMC existing EMP as they relate to the TMPL system to address the needs of the Project (Filing ID A3S4V5). The final programs will be developed in a manner consistent with the NEB draft conditions related to emergency response (Filing ID A3V8Z8).</p>	<p>adequate <u>within the particular stage of the Review</u>, but does not pose a restriction on additional information that may be requested by Intervenor.</p> <p>If Trans Mountain’s interpretation of Ruling No.50 was to be correct, then it essentially means that any information requests with relation to the EMP documents be meaningless and can be ignored by Trans Mountain, which the City understands to not be the situation at hand.</p>		
3.32 (d)	Please provide rationale if any of the above cannot be provided	Refer to the responses to parts a) to c) above.	Please see City’s comments on 3.32 (b) to (c).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comments on 3.32 (b) to (c).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
3.33 (a)	Please provide an assessment of all long term ecological impacts of the 2007 oil spill to habitats and species in the Burrard Inlet.	<p>The environmental effects of the July 2007 Westridge spill on the marine environment are assessed in detail in the <i>Environmental Impact Statement: Divisions B and D: Sewers, Foreshore and Marine Environment – Westridge Hydrocarbon Accidental Release</i> (Stantec Consulting Ltd. 2010). This report was submitted to the National Energy Board (NEB) on February 13, 2015 and can be found under Filing IDs A4H6G4, A4H6G5, A4H6G6, A4H6G7, A4H6G8, A4H6G9, A4H6H0, A4H6H1, A4H6H2, A4H6H3, A4H6H4, and A4H6H5. Following the 2007 spill, a long-term monitoring program was implemented to assess long-term effects to sediments and biota in Burrard Inlet. This program commenced in 2008 and continued until all recovery endpoints had been met in 2013. Annual reports detailing the results of the long-term monitoring program were submitted to the NEB on February 13, 2015. References for these reports and their corresponding Filing IDs are provided below.</p> <ul style="list-style-type: none">• Stantec Consulting Ltd. 2014. Long-term Monitoring Program – 2013 Report. Foreshore Environment. Westridge Hydrocarbon Accidental Release. Prepared for Kinder Morgan Canada. (Filing ID A4H6I2).• Stantec Consulting Ltd. 2012. Long-term Monitoring Program – 2012 Report. Foreshore Environment. Westridge Hydrocarbon Accidental Release. Prepared for Kinder Morgan Canada. (Filing ID A4H6I1).• Stantec Consulting Ltd. 2012. Long-term Monitoring Program – 2011 Report. Foreshore Environment. Westridge Hydrocarbon Accidental Release. Prepared for Kinder Morgan Canada. (Filing ID A4H6I0).• Stantec Consulting Ltd. 2011. Long-term Monitoring Program – 2010 Report. Foreshore Environment. Westridge Hydrocarbon Accidental Release. Prepared for Kinder Morgan Canada. (Filing ID A4H6H9).• Stantec Consulting Ltd. 2010. Long-term Monitoring Program – 2009 Report. Foreshore Environment. Westridge Hydrocarbon Accidental Release. Prepared for Kinder Morgan Canada. (Filing ID A4H6H8).• Stantec Consulting Ltd. 2010. Long-term Monitoring Program – 2008 Report. Foreshore Environment. Westridge Hydrocarbon	<p>Based on the response provided, the City understands that Trans Mountain considers that there would be no long term ecological impacts from the 2007 oil spill to habitats and species in the Burrard Inlet. This conclusion is made based on the assessment that the recovery endpoints had been met in 2013.</p> <p>Please confirm that the City’s understanding identified above is accurate.</p>	<p>Trans Mountain confirms that the recovery endpoints for all study components included in the long-term monitoring program (i.e., marine water, intertidal sediment, subtidal sediment, mussels, crabs and the <i>Fucus</i> community) were met by 2013. Based on the results of the long-term monitoring program, effects of the 2007 Westridge spill on the marine environment were not detectable after 2013.</p>	<p>No further information is required.</p>

		<p>Accidental Release. Prepared for Kinder Morgan Canada. (Filing ID A4H6H7).</p> <p>For a summary of the environmental effects of the 2007 spill, please see the Summary of Clean up and Effects of the 2007 Spill of Oil from Trans Mountain Pipeline to Burrard Inlet, provided as Attachment 1 to this response (City of Port Moody IR No. 2.3.33a – Attachment 1). For a more detailed assessment of the short- and long-term effects of the 2007 spill on the marine environment, please refer to the aforementioned reports.</p>			
3.33 (d)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to parts a) to c) above.	Please see City’s comments on 3.33(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	No further information is required.

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
4.1(a)	<p>Please provide a summarized table of all accessible funds for the purpose of compensating for oil spill response, rescue, and recovery measures under a worse-case spill scenario when the cost of the spill is at \$2.5 billion. Please specify the following in the table:</p> <ul style="list-style-type: none">• Source of funding;• Amount of funding;• All limitations to accessing the funds (e.g. conditions to access the funds); and,• Average time for claim reimbursement.	<p>The preamble to this information request mentions “The amount of transported oil (708,000 bpd)”, which is incorrect. The Trans Mountain Expansion Pipeline project is designed to transport 890,000 bpd.</p> <p>Trans Mountain does not regard the report by Goodman and Rowan as providing credible costs that are applicable to the circumstances representative of the Application. To inform their conclusions, the authors rely on examples involving the Lac Mégantic (Québec) rail spill, the San Bruno (USA) natural gas pipeline explosion, and the fires from two explosions after an incident in Qingdao (China). These situations are not analogs for Trans Mountain’s existing facilities or for the proposed expansion</p> <p>For an assessment of costs of hypothetical land-based spills, please see “Potential Cleanup and Damage Costs of a Hypothetical Oil Spill: Assessment of Trans Mountain Expansion Project” in Application Volume 7, Appendix G (Filing ID A3S4W8). Metro Vancouver can be regarded as a High Consequence Area (HCA) within the context of that analysis. The assessment indicates that a credible worst case spill would have a cost of the order of \$100 million to \$300 million. Additional sensitivity analyses are reflected in Trans Mountain’s Response to NEB IR No. 1.10b (Page 32 of 481 in Filing ID A3W9H8); that response indicates that a large spill (4000 m3) affecting a HCA would have a cost of the order of \$340 million.</p> <p>Trans Mountain has access to \$750 million in insurance for a land-based spill. Compensation frameworks and insurance covering a land-based spill are described in responses to NEB IR No. 1.08b to 1.08h (Page 24 of 481 in Filing ID A3W9H8). In the event that a liability occurs that is in excess of its insurance, Trans Mountain</p>	<p>The response did not provide a summary table as requested. The response refers to other IR responses, and does not meet NEB’s Procedural Order No.9, which states: “Trans Mountain must provide a full response to each IR; not merely cross-reference a response to a similar question asked in January 2015 by the Board or an Intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document.”</p> <p>Based on the response provided, the City is of the understanding that:</p> <ul style="list-style-type: none">• Trans Mountain has not undertaken an assessment of spill cost resulting from a tanker spill, as it is of the view that Trans Mountain will not be the Responsible Party even if the tanker is docked at the Westridge Marine Terminal, and therefore does not have to be concerned with the potential cost of such spill;• There is uncertainty as to whether or not there would be adequate compensation for a tanker spill, as the current compensation mechanisms are capped through provisions in the International Oil Pollution Compensation Fund and Canada’s complementary Ship-source Oil Pollution Fund;• The average time for claim	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required.</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

	<p>expects that any losses and claims would be paid out of cash reserves and cash flow from operations, which are illustrated in the response to NEB IR No. 1.09a and 1.09b (Page 24 of 481 in Filing ID A3W9H8). Those responses illustrate that Trans Mountain expects that it would have cash available over the first 5 years of approximately \$2.1 billion and a cash reserve balance at the end of Year 5 of approximately \$150 million. To the extent there is insufficient cash available Trans Mountain would either draw on credit facilities, issue debt, or borrow from its parent depending on the extent of the loss and its immediacy.</p> <p>Trans Mountain is not responsible for a tanker-based spill and has not undertaken an assessment of spill costs. A tanker based spill is governed by a compensation regime under the <i>Marine Liability Act</i>. Under those provisions, the tanker owner is the Responsible Party. The coverage of the cost of an oil spill arising from an offshore spill is described in Volume 8A, Section 1.4.1.6 (Filing ID A3S4X3). Liability limits of the funds available through the compensation regime applicable to tanker spills are described in Volume 8A, Section 5.5.3 of the Application (PDF pages 3-4 in Filing ID A3S5Q3). The claims procedures are documented in the claims manuals of the International Oil Pollution Compensation Fund (IOPCF) (Filing ID A3X5W1) and Canada’s complementary Ship-source Oil Pollution Fund (SOPF) (City of Port Moody IR No. 2.4.1a – Attachment 1).</p> <p>Because each spill is different, it is not meaningful to assign an “average time” for claim reimbursement either for land-based or for tanker spills. In both cases, resources are made available immediately by the relevant responsible parties or their insurers; these resources are used to pay spill-related expenses directly, or can be provided as reimbursement or advances to those affected by the spill. The procedures relevant to the SOPF and the IOPCF are described in</p>	<p>reimbursement cannot be ascertained.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p> <p>Please provide details on what costs can be covered by the statement “resources are made available immediately by the relevant responsible parties or their insurers”, specifically, whether these resources can be used to pay for response costs incurred by municipalities, as well as what timeframe is expected for the recovery of these costs (e.g., the length of claims processes, etc.).</p>		
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		their respective Claims Manuals as noted above.			
4.1(a)(i)	Please provide all of the above details when the Responsible Party is Trans Mountain, and when the Responsible Party is not Trans Mountain.	<i>Not directly referenced</i>	Plases see City's comments on 4.1(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.1(b)	If accessible funds are not adequate to compensate for a spill cost of \$2.5 billion, please provide the estimated amount of the shortfall and describe any legal commitments from Trans Mountain and/or other Responsible Parties to compensate for this shortfall.	<p>Refer to the response to City of Port Moody IR No. 2.4.1a. In Trans Mountain's view all eligible claims will be covered either through insurance mechanisms or, if Trans Mountain is responsible, through its resources as described in Trans Mountain's response to City of Port Moody IR No. 2.4.1a.</p> <p>Trans Mountain is not responsible for tanker based spills.</p> <p>A tanker based spill is governed by a compensation regime under the <i>Marine Liability Act</i>. Under those provisions, the tanker owner is the Responsible Party. Compensation mechanisms are currently capped through provisions in the International Oil Pollution Compensation Fund (IOPCF) and Canada's complementary Ship-source Oil Pollution Fund (SOPF). To this date, no spill in Canadian waters has resulted in costs that have exceeded the relevant caps. Trans Mountain cannot speculate as to how or if the Government of Canada would choose to further extend compensation frameworks in the event that spill costs exceeded current caps. There are various options available now, and additional options are expected to be available in the future.</p> <p>The Tanker Safety Expert Panel recommended (Recommendation 23) that caps to the SOPF be removed and that the SOPF be able to access Canada's</p>	Please see City's comments on 4.1(c).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>Consolidated Revenue Fund through loans that would be reimbursed with interest from future revenues of levies on oil transported by ship to, from and within Canada. Trans Mountain supports Recommendation 23 of the Tanker Safety Expert Panel, which specifically reads as follows (Appendix 1 – List of Recommendations, Filing ID A3Y2J1):</p> <p>The current limit of liability per incident within the Ship-source Oil Pollution Fund should be abolished. The Fund should process and pay for all admissible claims, subject to the Consolidated Revenue Fund’s consent to loans in favour of the Ship-source Oil Pollution Fund for amounts sufficient to allow all admissible claims to be paid to claimants. The loans would be reimbursed with interest to the Consolidated Revenue Fund from future revenues of levies on oil transported by ship to, from and within Canada.</p> <p>Additional observations regarding the Tanker Safety Expert Panel report and Government of Canada announcements relating thereto are provided in Trans Mountain Response to Allan R IR No. 1.21j (PDF page 200 of 216 in Filing ID A3X5V9). The coverage of the cost of an oil spill arising from an offshore spill is described in Volume 8A, Section 1.4.1.6 (Filing ID A3S4X3).</p>			
4.1(c)	<p>If Trans Mountain and/or other Responsible Parties are not able to provide a legal commitment to compensate for the shortfall described above, please provide the methods and/or processes for local governments and community to seek compensation.</p>	<p>Refer to the response to City of Port Moody IR No. 2.4.1a. In Trans Mountain’s view all eligible claims will be covered either through insurance mechanisms or, if Trans Mountain is responsible, through its resources as described in Trans Mountain’s response to City of Port Moody IR No. 2.4.1a</p> <p>The funds available through the International Oil Pollution Compensation Fund (IOPCF) and Canada’s complementary Ship-source Oil Pollution Fund (SOPF) will cover an extensive range of costs to a wide range of claimants for cleanup and damage costs associated with a tanker based oil spill in Canadian waters. The impacts must be: (i) linked to an oil spill; (ii) supported</p>	<p>The request asks Trans Mountain to provide specific information on its legal commitments for the compensation of spill costs <u>beyond those available through already established funding sources</u>, as well as to detail mechanisms for compensation of the shortfall.</p> <p>The City requests that Trans Mountain provide a full and adequate response to this request by providing information on any legal obligations that it has with respect to employing the cash reserve, drawing on credit facilities, and other methods</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required.</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<p>by proper claims documentation; and (iii) submitted within a period defined by the respective fund rules.</p> <p>The most common reason for uncompensated losses is because the claims were excluded due to non-compliance with one of these three conditions. Claims are ineligible if losses are not linked to an oil spill, are not documented by acceptable records, or are not filed on time. In addition, assessors of claims will generally ensure that the level of claims are <i>reasonable</i> given the circumstances. While this may be open to different interpretations, assessors for the respective funds have experience from other spills to guide them.</p> <p>In addition, it should be noted that some losses are excluded in the IOPCF regime but are explicitly included within the SOPF. Notably, the IOPCF applies only to impacts from persistent oils; the SOPF applies both to persistent and non-persistent spills. Because the products to be exported are in a class of heavy oils, they would be regarded as persistent oils and are covered under both the SOPF and IOPCF. Also, the SOPF has ensured that fishers' losses are explicitly eligible, while the IOPCF has treated these inconsistently historically but through policy has covered such losses: guidance for making such claims is provided in the IOPCF Claims Manual (Filing ID A3X5W1).</p> <p>Finally, the funds do not provide compensation for losses that are not measurable, or which are purely punitive. Loss estimates for anticipated future losses are recoverable if based on accepted financial and economic modeling methods. The IOPCF does not, however, compensate certain losses for which no accepted methodology exists for valuation. For example, damage to the "cultural" values of aboriginal people are frequently intangible and not readily monetized. Funds would pay for cleanup and rehabilitation of mariculture areas, or for costs of relocating temporarily a subsistence fishery. But they</p>	<p>mentioned to compensate for losses in the event when insufficient cash is available, as noted in Trans Mountain's response for 4.1(a).</p>		
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		would not be capable of compensating for notional monetary cultural values that may be attributable to the consumption of a subsistence fishery. The IOPCF Claims Manual contains the following clause to exclude such potential claims, as well as punitive damages: “1.4.13 Compensation is not paid in respect of claims for environmental damage based on an abstract quantification calculated in accordance with theoretical models. Nor is compensation paid for damages of a punitive nature on the basis of the degree of fault of the wrong doer.” Trans Mountain notes that the Northern Gateway Joint Review Panel also determined that certain losses were not readily monetized: “Regarding the Office of the Wet’suwet’en’s concern about potential cultural losses, the Panel agrees that some aspects of cultural activity cannot be described in economic terms.” (Government of Canada, 2013, p.362 Filing ID A3S7C6).			
4.1(c)(i)	Please provide details on the potential cost that municipalities, local communities, and private property owners may bear that cannot and/or would not be compensated for by any funding sources - whether by Trans Mountain, other Responsible Parties, and Insurance sources.	<i>Not directly referenced.</i>	No response is provided. The City requires a complete and adequate response to the City’s request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
4.1(c)(ii)	Please provide evidence to support the assessment of the potential costs listed above.	<i>Not directly referenced.</i>	Please see City’s comments for 4.1(c)(i).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

4.1(d)	What are the legal ramifications for municipalities, local communities, and private property owners to seek for compensation from Trans Mountain and/or other Responsible Parties for these potential costs?	In Trans Mountain's view all eligible claims will be covered either through insurance mechanisms or, if Trans Mountain is responsible, through its resources as described in Trans Mountain's response to City of Port Moody IR No. 2.4.1a.	Please see City's comments for 4.1(c)(i).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.1(e)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to City of Port Moody IR No. 2.4.1a through 2.4.1d.	Please see City's comments on 4.1 (a) to (d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
4.2(a)	Please provide an assessment of the business and economic impacts to Port Moody businesses (including PCT, small and medium size businesses, etc.) if the Burrard Inlet is closed for 1, 7, 14, or 31 days of operation, in the event of a major oil spill incident. Please qualify and quantify all potential impacts in a summary table.	<p>Trans Mountain did evaluate potential socio-economic effects of credible worst-case and smaller spills from the Westridge Marine Terminal and Project-associated tankers using the risk-based approach described in the response to City of Port Moody IR No. 2.3.24c, but did not complete a quantitative assessment of potential business, economic or tourism impacts in the event of a spill.</p> <p>Section 5.6.1 of Volume 8A (Filing ID A3S5Q3) and Section 6.3 of Volume 7 (Filing ID A3S4V5) state that a marine spill could result in adverse economic effects. Effects on local infrastructure and services, including major road-ways and rail-lines could also occur. Specific predictions about such effects were not provided because of the complexity associated with predicting hypothetical events. This is true even where specific durations or activities are considered as suggested in the requests. An analysis of spill costs (including damages) arising from hypothetical spills is provided in Application Volume 7, Appendix G (Filing ID A3S4W8). The analysis focused on terrestrial source spill costs and also included hypothetical spills into the marine environment from the Westridge Marine Terminal. The approach taken in the spill cost analysis was to estimate total costs, as conditions vary from spill to spill and it is not possible to provide cost estimates for individual items such as business impacts.</p>	<p>Based on the response provided, the City is of the understanding that Trans Mountain is unable to provide an assessment of the potential business, economic, or tourism impacts to the City and community of Port Moody in the event of a spill due to “the complexity associated with predicting hypothetical events”.</p> <p>Please confirm the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

4.2(a)(i)	If negative impacts are expected, please outline mitigation measures committed by Trans Mountain and/or potential Responsible Parties.	If a spill were to occur, Trans Mountain is responsible for loss and damage resulting from a spill. Given the many variables and uncertainties surrounding any particular incident, there is no credible way of defining the specific mitigation measures that would be implemented, but communities and Aboriginal groups who are impacted by the incident would be invited to participate in Unified Command established as part of the Incident Command System (ICS) for emergency response. This allows the communities to put forth their objectives and priorities along with other members of Unified Command. Local municipalities are not responsible for spill clean-up; however, it is appropriate that they are directly involved in emergency response decision making through Unified Command and to receive real time updates throughout the course of the emergency. Participation in Unified Command would allow City of Port Moody or others to identify measures to mitigate business, tourism and infrastructure effects or enhance business opportunities for Port Moody businesses.	See City's comments on 4.2(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.2(b)	Please provide an assessment of the impact from potential closures and/or disruption to major roadways and rail-lines that may result in the event of a major oil spill impacting the Port Moody arm of the Burrard Inlet. Please qualify and quantify potential impacts in a summary table.	Refer to response a) above.	See City's comments on 4.2(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.2(b)(i)	Please provide an assessment of the socio-economic impacts to the community of Port Moody if the local transportation system is negative impacted as a result of a major oil spill event.	Refer to response a) above.	See City's comments on 4.2(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

4.2(b)(i)(ii)	If negative impacts are expected, please outline mitigation measures committed by Trans Mountain and/or potential Responsible Parties.	Refer to response a) above.	See City's comments on 4.2(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.2(c)	Please provide an assessment of the estimated socio-economic impact of a tanker spill on all marine users in Port Moody, including details about strategies that Trans Mountain intends to use to mitigate economic losses to local tourism	Refer to response a) above.	See City's comments on 4.2(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.2(d)	Please provide rationale if any of the above cannot be provided.	Refer to response a) above.	See City's comments on 4.2(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	See City's comments on 4.2(a)

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
4.3(a)	Please provide the assessment of the all costs and damages related to the 2007 oil spill in Burnaby.	The financial details, requested by the City of Port Moody, are confidential in nature and not within the scope of this proceeding or part of the National Energy Board’s (NEB) list of issues. For a broad discussion on releases and cost impacts, please refer to Eliesen M IR No. 1.10a (Filing ID A3X6D1).	<p>The City’s inquiry is on an assessment of <u>all costs and damages</u> related to the 2007 oil spill in Burnaby, the response from Trans Mountain indicates that this information is confidential in nature and is not within the scope of this proceeding but provides no rationale. The response also did not demonstrate why Trans Mountain cannot provide the information with confidential information removed. What are the standards for defining what information is confidential and what is not?</p> <p>The Trans Mountain response also refers to response to another IR, which is not in accordance to Procedural Direction No.9, which states: “Trans Mountain must provide a full response to each IR; not merely cross-reference a response to a similar question asked in January 2015 by the Board or an Intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document.”</p>	Cost were approximately \$20 million for KMC and contractors to respond and conduct remediation and clean up. While KMC can provide these approximate costs, it cannot provide amounts reached in confidential legal settlements.	<p>The response included only information on the costs of remediation and clean up, which are only a portion of the total costs and damages related to the 2007 oil spill in Burnaby, but neglected to provide total damage costs. No rationale was provided on why a total damage costs cannot be provided.</p> <p>The City requires a full and adequate response to its information request.</p>
4.3(b)	Please provide details on cleanup and recovery insurances that the 2007 spill activated, and total amounts of funds that were paid out.	Refer to response to a) above.	Please see City’s comments on 4.3(a)	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
4.3(c)	Please provide details on any costs incurred by	Refer to response to a) above.	Please see City’s comments on 4.3(a).	In accordance with Board Ruling	Trans Mountain’s response does not

	impacted parties that have not been fully compensated for.			No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.3(f)	Please provide details of all expenses on recovery of the environmental damages caused by the 2007 oil spill. Please specify the parties that incurred the cost, and when the party is not Trans Mountain, please provide details on compensation that Trans Mountain provided, if any. Does Trans Mountain consider the cleanup to be completed and all costs paid for?	Refer to response to a) above.	Please see City's comments on 4.3(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.3(g)	Please provide details on the monetary costs incurred by the City of Burnaby and its various departments (e.g. Burnaby Police and Fire Department), as well as non-profit organizations.	Refer to response to a) above.	Please see City's comments on 4.3(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.3(g)(i)	Please provide details on how these monetary costs were compensated, specifying the sources of the funds utilized.	<i>Not directly referenced.</i>	No response was provided in this request.	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
4.3(h)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to parts a) to g) above.	Please see City's comments on 4.3 (a) to (g)(i).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 4.3 (a) to (g)(i).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
4.4(a)	<p>Please provide details on Trans Mountain's Financial Assurances Plan, specifying the minimum cash levels set aside to cover costs that exceed the payout of all other components in the plan, including:</p> <ul style="list-style-type: none"> • ready cash; • core financial coverage; and, • financial backstopping arrangements. 	<p>Canada's oil spill compensation regime is based upon the polluter-pay-principles, and all costs will be paid for by the Responsible Party (Trans Mountain for a pipeline spill, the tanker owner for a tanker spill).</p> <p>As indicated in Trans Mountain's response to NEB IR 2.002g and NEB IR 2.003c [Filing ID A3Z4T9] Trans Mountain is committed to providing a financial assurance package that the NEB deems appropriate as a condition of approval for this Project.</p> <p>In the case of ship source spills The <i>Marine Liability Act</i> (MLA) establishes the framework for handling marine liability and compensation in Canada and also establishes the Ship-source Oil Pollution Fund (SOPF), which provides funding for spills from all classes of vessels in Canadian waters. Almost \$1.3 Billion is available through this SOPF. More information can be found in the Application, Volume 8A Section 1.4.1.6 (Filing ID A3S4X3) and Volume 8C, TR8C-15 (Filing ID A3S5J6).</p>	<p>The response solely indicates that Trans Mountain is "committed to providing a financial assurance package" but does not provide the details requested. In addition, the response cross-references other response, which is not in accordance to Procedural Direction No.9, which states: "Trans Mountain must provide a full response to each IR; not merely cross-reference a response to a similar question asked in January 2015 by the Board or an intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document."</p>	<p>If, as a condition of approval, Trans Mountain is required to provide financial assurance in the event of a spill of a specified dollar amount over the life of the Project then Trans Mountain expects it will use a layered approach to providing the financial assurance with the first layer being cash and/or accessible cash, the second layer being General/Excess Liability insurance coverage accessible by Trans Mountain through the Kinder Morgan corporate insurance program and the third layer (and only to the extent required) being the provision of a parental guarantee. Trans Mountain expects that that the parental guarantee, if required, would be provided by Kinder Morgan Energy Partners, L.P.</p>	<p>The response does not provide the information requested. The City has requested the particulars of Trans Mountain Assurances Plan, including but not limited to the minimum cash level set aside.</p> <p>Based on the response provided, the City understands that Trans Mountain is not able to provide a Financial Assurances Plan prior to the publication of the draft conditions.</p> <p>Please confirm that the City's understanding, as stated above, is correct.</p>
4.4(a)(i)	<p>Please provide details of Financial Assurances Plans of other potential Responsible Parties, such as oil shipping vessel owners, of a potential oil spill along the shipping route of the Project.</p>	<p><i>Not directly referenced.</i></p>	<p>Please see City's comments on 4.4(a).</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Please see City's comments on 4.4(a).</p>
4.4(b)	<p>Please provide an assessment of the Financial Assurance Plan for the Project in comparison to the Enbridge Northern Gateway Project Conditions, with consideration of the potential impacts the Trans Mountain</p>	<p>As indicated in Trans Mountain's response to NEB IR 2.002g and NEB IR 2.003c [Filing ID A3Z4T9], Trans Mountain has committed to provide a financial assurance package that the NEB deems appropriate as a condition of approval for Trans Mountain's Project and after taking</p>	<p>Please see City's comments on 4.4(a).</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the</p>	<p>Please see City's comments on 4.4(a).</p>

	proposed project will pass by the most densely populated area of the West Coast (Metro Vancouver).	into account its estimate of the cost of a credible worst case scenario of \$300 million for the Trans Mountain System. Trans Mountain's financial assurance package takes into account the unique attributes of Trans Mountain and its Project. Trans Mountain is not in a position nor does Trans Mountain consider it appropriate to evaluate/compare the Enbridge Northern Gateway Project Financial Assurance Plan as Trans Mountain expects that its plan incorporates attributes that are unique to its Project.		Board in its consideration of the application and no further response is required.	
4.4(c)	Please provide rationale if any of the above cannot be provided.	Refer to the responses to parts a) and b) above.	Please see City's comments on 4.4 (a) to (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 4.4(a) and (b).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
4.5(a)	Please provide an assessment of the damage, cleanup and recovery costs, as well as resources that Trans Mountain will set aside for a worse-case oil spill accident in the Metro Vancouver region as a High Consequence Area.	<p>Trans Mountain does not regard the report by Goodman and Rowan as providing credible costs that are applicable to the circumstances representative of the Application. To inform their conclusions, the authors rely on examples involving the Lac Mégantic (Québec) rail spill, the San Bruno (USA) natural gas pipeline explosion, and the fires from two explosions after an incident in Qingdao (China). These situations are not analogs for Trans Mountain’s existing facilities or for the proposed expansion.</p> <p>For an assessment of costs of hypothetical land-based spills, please see “Potential Cleanup and Damage Costs of a Hypothetical Oil Spill: Assessment of Trans Mountain Expansion Project” in Application Volume 7, Appendix G (Filing ID A3S4W8). Metro Vancouver can be regarded as a High Consequence Area (HCA) within the context of that analysis. The assessment indicates that a credible worst case spill would have a cost of the order of \$100 million to \$300 million. Additional sensitivity analyses are reflected in Trans Mountain’s Response to NEB IR No. 1.10b (Page 32 of 481 in Filing ID A3W9H8); that response indicates that a large spill (4000 m3) affecting a HCA would have a cost of the order of \$340 million.</p> <p>Trans Mountain has access to \$750 million in insurance for a land-based spill. Compensation frameworks and insurance covering a land-based spill are described in responses to NEB IR No. 1.08b to 1.08h (Page 24 of 481 in Filing ID A3W9H8).</p> <p>In the event that a liability occurs that is in excess of its insurance, Trans Mountain expects that any losses and claims would be paid out of cash reserves and cash flow from operations, which are illustrated in the responses to NEB IR No. 1.09a and 1.09b (Page 24 of 481 in Filing ID A3W9H8). Those responses illustrate that Trans Mountain expects that it would have cash available over the first 5 years of</p>	<p>The response did not specify whether the assessment of the damage, cleanup and recovery costs, as well as resources that Trans Mountain will set aside is based on a <u>credible worst oil spill accident in the Metro Vancouver region</u>, as requested.</p>	<p>Trans Mountain clarifies its response as follows:</p> <p>Trans Mountain’s response observed that: “Metro Vancouver can be regarded as a High Consequence Area (HCA) within the context of that analysis. The assessment indicates that a credible worst case spill would have a cost of the order of \$100 million to \$300 million. Additional sensitivity analyses are reflected in Trans Mountain’s Response to NEB IR No. 1 .1 0b (Page 32 of 481 in Filing ID A3W9H8); that response indicates that a large spill (4000 m3) affecting a HCA would have a cost of the order of \$340 million.”</p> <p>Trans Mountain confirms that these estimates (in the range of \$100 to \$340 million) represent a potential worst case oil spill in Metro Vancouver. The resources noted in Trans Mountain’s response are applicable to such a worst case spill in Metro Vancouver.</p>	No further information is required.

		<p>approximately \$2.1 billion and a cash reserve balance at the end of Year 5 of approximately \$150 million. To the extent there is insufficient cash available Trans Mountain would either draw on credit facilities, issue debt, or borrow from its parent depending on the extent of the loss and its immediacy.</p> <p>Trans Mountain is not responsible for a tanker-based spill and has not undertaken an assessment of spill costs. A tanker based spill is governed by a compensation regime under the <i>Marine Liability Act</i>. Under those provisions, the tanker owner is the Responsible Party. The coverage of the cost of an oil spill arising from an offshore spill is described in Volume 8A, Section 1.4.1.6 (Filing ID A3S4X3).</p>			
4.5(b)	Please provide rationale if the above cannot be provided.	Refer to the response to a) above.	Please see City's comments on 4.5(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
5.1(b)	Please provide a list of all species that can be found in the Burrard Inlet which were not included in the original species survey that only identified indicator species.	The marine fish and fish habitat and marine bird surveys conducted at the Westridge Marine Terminal did not focus on indicator species. The objective of these surveys was to characterize the distribution and abundance of all species of algae, invertebrates, fish and marine birds in areas potentially affected by construction and operations of the Westridge Marine Terminal. Therefore, all species observed during the surveys were recorded. For a detailed discussion on survey methods and results, refer to Technical Report 5C-13 of Volume 5C, Marine Resources – Westridge Marine Terminal Technical Report (Stantec Consulting Ltd. December 2013; Filing ID A3S2R7) and Technical Report 5C-14 of Volume 5C, Marine Birds – Westridge Marine Terminal Technical Report (Stantec Consulting Ltd. December 2013; Filing ID A3S2R8).	<p>The City asks for a list of all species that <u>can be found in the Burrard Inlet which were not included in the original species survey</u> conducted by Trans Mountain. This information was not provided in Trans Mountain’s response.</p> <p>A list of all species could be documented through other resources, such as other surveys, studies, research, knowledge of local experts, etc.</p>	<p>An inventory of all marine species potentially occurring in Burrard Inlet is not considered necessary for assessing potential effects of the Project on the marine environment. The assessment of potential Project effects on marine fish and fish habitat, marine mammals and marine birds focused on indicator species that are representative of species groups or ecological guilds that could be affected by Project construction and operations. The selection of indicators followed a thorough review of available literature on species that are known to occur in Burrard Inlet. Factors considered in the selection of indicator species included: conservation status; sensitivity to potential Project effects; distribution and abundance in the assessment areas; and ecological, economic and cultural importance. For further discussion on the selection of marine indicator species, please refer to Section 3.2 in Technical Report 5C-13 of Volume 5C, Marine Resources – Westridge Marine Terminal Technical Report (Stantec Consulting Ltd. December 2013; Filing ID A3S2R7) and Section 3.2 in Technical Report 5C-14 of Volume 5C, Marine Birds – Westridge Marine Terminal Technical.</p> <p>Report (Stantec Consulting Ltd. December 2013; Filing ID A3S2R8). With the careful selection of indicator species, the potential effects of Project construction and operations on marine species in Burrard Inlet have been appropriately assessed in the Application, and a complete species inventory is not considered necessary.</p>	<p>The information requested has not been provided. The City requested a list of all species that can be found in the Burrard Inlet which were not included in the original species survey conducted by Trans Mountain.</p> <p>A list of all species could be documented through other resources, such as other surveys, studies, research, knowledge of local experts, etc.</p>

5.1(b)(i)	Please provide rationale for not including these other species in the original surveys.	<i>Not directly referenced.</i>	Please see City's comments on 5.1(b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
5.1(c)	Please provide evidence on why the chosen indicator species adequately represent all water, land and avian species in the aforementioned region.	The rationale for the selection of marine fish and fish habitat and marine mammal indicators for the assessment of potential Project effects is presented in Section 3.2 of Technical Report 5C-13 of Volume 5C, Marine Resources – Westridge Marine Terminal Technical Report (Stantec Consulting Ltd. [Stantec] December 2013, Filing ID A3S2R7) and Section 3.2 of Technical Report 8B-1 of Volume 8B, Marine Resources – Marine Transportation Technical Report (Stantec December 2013, Filing ID A3S4J5). The rationale for the selection of marine bird indicators for the assessment of potential Project effects is presented in Section 3.2 of Technical Report 5C-14 of Volume 5C, Marine Birds – Westridge Marine Terminal Technical Report (Stantec December 2013, Filing ID A3S2R8) and Technical Report 8B-2 of Volume 8B, Marine Birds – Marine Transportation Technical Report (Stantec December 2013, Filing ID A3S4J6).	The response does not provide any answer, and solely references other documents and is not provided in accordance to Procedural Direction No.9, which states that "Trans Mountain must provide a full response to each IR; not merely cross-reference a response...If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a reference to a document already on the record...Trans Mountain must include the hyperlink and Filing ID for that document."	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
5.1(d)	Please describe Trans Mountain's plans and commitments, if any, to monitor the baseline environmental data on an ongoing basis as a foundation to establishing a baseline for the recovery from oil spill events, when they happen.	Refer to Trans Mountain Pipeline ULC's (Trans Mountain) response to NEB IR No. 3.023a (Filing ID A4H1V2) with respect to Trans Mountain's participation in land-based and marine-based baseline data collection. Any data Trans Mountain has already collected with respect to the Project would be shared with relevant authorities provided a data sharing agreement was in place.	The response does not provide information requested and is not provided in accordance to Procedural Direction No.9, which states that "Trans Mountain must provide a full response to each IR; not merely cross-reference a response to a similar question asked in January 2015 by the Board or an intervenor. If the same answer is appropriate, then Trans Mountain must repeat that answer. If an answer includes a	As stated in the response to the National Energy Board (NEB) IR No. 3.023a (Filing ID A4H1V2), at the start of Project operations in late 2018, the laden vessels leaving Westridge Marine Terminal will account for approximately 16.4% of large vessel movements in Burrard Inlet and 6.6% of large vessel movements in the Strait of Juan de Fuca (see Volume 8A, Tables 2.2.2 and 2.2.3; Filing ID A3S4X4). Clearly, Kinder Morgan Canada Inc. (KMC) would be a participant in a collaborative initiative to	Based on the responses provided, the City understands that Trans Mountain has no plans or commitment to monitor the baseline environmental data (including but not limited to species and ecosystem information) on an ongoing systematic basis. Please confirm that the City's understanding, as stated above, is correct.

			reference to a document already on the record (i.e., not a response to a January IR), Trans Mountain must include the hyperlink and Filing ID for that document.”	develop a spill monitoring sampling program, which includes a baseline sampling program, for chemicals of potential concern in the shipping lanes in Canadian waters, along with other industrial marine traffic users in the Burrard Inlet and straits of Georgia and Juan de Fuca. KMC remains committed to playing a role in the dialogue on developing a program for a spill monitoring sampling program should the opportunity arise.	
5.1(e)	Please indicate the important species selected for continuous survey and monitoring, as well as the rationale behind choosing these specific species.	Refer to response to City of Port Moody IR No. 2.5.1d.	Please see City’s comments for 5.1(d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comment on 5.1(d).
5.1(f)	Please provide details on consultation with local experts and ecologists during the selection of species to monitor, if any	Consultation with Environmental Canada, Fisheries and Oceans Canada, Port Metro Vancouver, BC Ministry of Environment, and BC Ministry of Forests, Lands and Natural Resource Operations has been ongoing since May 2012. Many of the provincial and federal agency technical experts were in attendance at these meetings. In 2013, Trans Mountain held numerous open houses for the public to attend and provide feedback and share information and initiated a series of Environmental and Socio-Economic Assessment workshops that included Aboriginal representatives, environmental non-governmental representatives, local experts and professionals, community members, landowners, and regulatory authorities who participated in the review of indicator species to be assessed. In March 2013, Trans Mountain issued a “Summary of the Proposed Approach to the Environmental and Socio-Economic Assessment for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project” for public review and comment. This document lists the assessment approach, key issues,	The response did not provide details on consultation with local experts and ecologists as requested, such as who these individuals are, the date and process of consultation, their respective comments, as well as how their comments have been incorporated in Trans Mountain’s application.	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p> <p>In accordance with Board Ruling No. 33 (Filing ID A63066), the request is for new information. Seeking more specific information or more details in the motion to compel full and adequate responses is essentially a request for new information and is not permitted under Ruling No. 33. Rather than seeking to compel a further answer, the Intervenor may file its own evidence in response or provide its views during final argument</p>	Please see City’s comment on 5.1(d).

		<p>proposed indicators, measurement endpoints and study area. In addition, Trans Mountain representatives have met with local experts from Pacific Salmon Foundation, Pacific Wildlife Foundation, Vancouver Aquarium, Stoney Creek Environment Committee, Eagle Creek Stream keepers, Seymour Salmonid Society, and Raincoast Conservation Foundation to review potential species concerns, monitoring opportunities and post-construction wildlife and aquatic habitat enhancement projects. Post-construction monitoring (PCM) is conducted by qualified resource specialists with knowledge of local species, conditions and site-specific habitat issues that may arise. In general (although not always), specific species are not selected for PCM. Rather, the goal of PCM is for the environment to be assessed as functionally comparable to pre-construction conditions or adjacent conditions off the right-of-way, or for a community or disturbed area to achieve an early trajectory that will in time resemble the pre-construction condition. The long-term target of PCM is to return the disturbed portion of the construction footprint to a state where it can be used by the same species or for the same purposes as were used in a similar manner prior to construction, with operational considerations in mind.</p>			
5.1(g)	<p>For any monitoring plans, please provide details, including monitoring frequencies, reporting and documentation systems and procedures, monitoring agencies, and long-term monitoring commitments and resources.</p>	<p>Trans Mountain will conduct the post-construction monitoring (PCM) Program during a period up to the first five complete growing seasons (or during years one, three and five) following commissioning of the Project or as per the National Energy Board (NEB) Certificate conditions. The PCM Program will be initiated following completion of construction and initial clean-up, in order to identify any unresolved issues upon the completion of construction. The first PCM report will be the Environmental As-built Report. Refer to Volume 6A, Section</p>	<p>Not all information requested was provided. Specifically, the City requested information on details of monitoring during operation (as well as construction). Other information was also not provided, including but not limited to regulatory agencies responsible for overseeing all monitoring programs and results.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Please see City's comment on 5.1(d).</p>

		<p>9.0 Post Construction Environmental Monitoring (Filing ID A3S2S1) for full details on the PCM Program. A summary of Volume 6A, Section 9.0 is provided below.</p> <p>The purpose of the PCM Program is as follows.</p> <ul style="list-style-type: none">• Evaluate the success of reclamation and effectiveness of mitigation measures used in areas disturbed during construction.• Identify environmental issues that may have arisen post-construction on the Environmental Issues List.• Recommend and coordinate the implementation of any remedial measures that are warranted to address any outstanding or new environmental issues. <p>Trans Mountain is a federally regulated pipeline and its monitoring agency is the NEB. Trans Mountain will consult with the appropriate federal, provincial, municipal, and regional agencies for each of the respective monitoring plans as set out in the NEB Certificate conditions. In BC, this could include Fisheries and Oceans Canada, Environment Canada, Transport Canada, Port Metro Vancouver, BC Agricultural Land Commission, BC Ministry of Environment, BC Ministry of Transportation, BC Ministry of Forests, Land and Natural Resource Operations, and BC Parks. Trans Mountain will also consult with the affected communities, Aboriginal groups, local and regional authorities for each of the respective monitoring plans as in accordance with the National Energy Board (NEB) Draft Condition No. 21 of the NEB’s Letter – Draft Conditions and Regulatory Oversight (April 16, 2014) (NEB 2014; Filing ID A3V8Z8).</p> <p>Physical Environment, Terrain, and Soils Assessment</p> <p>A review of the Environmental Issues List will identify areas in which soil sampling or</p>			
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		<p>additional assessment may be warranted to address reclamation concerns. Soil assessment, sampling, and in situ soil testing can provide additional information to assess reclamation success related to the mixing of topsoil/root zone material and subsoil, topsoil/root zone material depth, erosion, compaction, subsidence, rutting, contamination issues, stoniness, contour reclamation, and soil structure.</p> <p>The frequency and location of assessment and sample locations along the construction right-of-way will be determined by the resource specialist.</p> <p>Soil sampling frequency and location will be based on areas with evidence of reduced soil productivity. If potentially contaminated soil is observed during the PCM Program, the location will be recorded and recommendations will be made for soil (and potentially groundwater) from the area to be sampled and analyzed to determine if further investigation is required and if so, it will provide recommendations on how to proceed.</p> <p>Vegetation Monitoring</p> <p>Vegetation monitoring consists of a visual inspection by a resource specialist. The timing of vegetation monitoring will generally be in the mid to late summer when the vegetation is mature enough for accurate identification and evaluation. Particular attention will be given to areas of terrain instability that may be prone to erosion. If warranted, detailed vegetation assessments will be completed at sites where reclamation problems are identified in the Environmental Issues List. Where warranted, rare plant, rare lichen and/or rare ecological community monitoring will be conducted by a rare plant specialist in the early and/or late-summer (depending on the species to be monitored) one full growing season after clean-</p>			
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		<p>up has been completed. For areas that contained native vegetation prior to construction, reclamation will focus on the establishment of an early successional trajectory of a native vegetation community.</p> <p>For cultivated lands, landowners and farm operators will be engaged to solicit information on crop production. Vegetation on the construction right-of-way and in reclaimed working areas will be visually assessed for crop growth. For hay and tame pasture lands, ground cover of desirable species will be assessed by estimating the total percent of live cover. The occurrence and type of undesirable species (i.e., weeds) will be assessed by estimating the percent cover using the same method. The construction right-of-way will be inspected for issues such as poor vegetation establishment or reduced crop growth. In forested areas, vegetation on the construction right-of-way will be visually assessed for cover establishment. In urban areas, vegetation will be monitored for the timely establishment of cover that will reduce erosion and sedimentation.</p> <p>For some treed areas (e.g., riparian areas) where the natural regeneration of woody vegetation along the construction right-of-way is the preferred option for revegetation, the establishment of a vegetative cover compatible with the surrounding vegetation and land use will be evaluated.</p> <p>Old Growth Management Areas A monitoring plan for windthrow will be implemented to document changes to newly created edges in OGMA's and to identify where further mitigation measures are required should windthrow levels exceed natural levels in consultation with regulatory authorities.</p>			
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		<p>Surveying of edges (as part of construction and clearing plan development) will highlight areas rated with moderate to high windthrow potential.</p> <p>Windthrow surveying will be completed by helicopter or on the ground. Monitoring will continue each year until no major problems associated with the edges created are observed (up to 5 years of post-construction monitoring, depending on the level of windthrow incidence observed during annual surveying) or as per NEB certificate conditions. Generally, areas with more than 15% windthrow are experiencing levels in excess of natural windthrow and may require restoration. OGMA's will be monitored during the vegetation monitoring program for invasive species where they are crossed by the proposed pipeline corridor.</p> <p>Wetland Monitoring</p> <p>The objectives of the wetlands monitoring component of the PCM Program are to gather sufficient information to identify the status of the recovery of wetland function and to measure the effectiveness of Trans Mountain's wetland construction and reclamation mitigation.</p> <p>The wetland-specific PCM Program entails revisiting all disturbed wetlands following construction to document the progress of function (i.e., habitat, hydrological and biogeochemical) returning to the wetland ecosystem. Ground-based surveys will be conducted at all wetlands disturbed by construction. All wetlands will be surveyed to document wetland recovery during the wetland monitoring component of the PCM Program.</p> <p>Wetland functional conditions documented during existing conditions (i.e., pre-</p>			
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		<p>construction) and wetland functional conditions that were observed either adjacent to, or in close proximity to, the construction right-of-way will be directly compared to wetland functional conditions observed along the reclaimed (i.e., post-construction) construction right-of-way. The results of the PCM Program will be compiled in a Wetlands PCM Report as an appendix to the general PCM Program.</p> <p>A qualified wetland specialist will conduct wetland monitoring. Wetland specialists view wetlands as dynamic landscape systems (i.e., all variables are interrelated) and complete functional assessments using best professional judgement.</p> <p>Based on the findings during the PCM Program, recommendations for remedial measures will be provided, if warranted, to promote the successful return of wetland function to the baseline conditions as quickly as practical and within the duration of the PCM Program.</p> <p>Watercourse Monitoring</p> <p>Watercourse monitoring, as part of the PCM Program, will be carried out by a specialist with experience completing post-construction monitoring. The objective of the watercourse monitoring is to gather sufficient information to document the status of the watercourse reclamation and the function of the reclaimed habitat.</p> <p>Monitoring at fish-bearing watercourses will confirm that instream habitat that was reclaimed remains functional. Fish-bearing watercourses, where an authorization by Fisheries and Oceans Canada (DFO) was necessary, may be subject to specific monitoring conditions and/or timing requirements for monitoring. DFO prescribed monitoring will be carried out in conjunction with the PCM Program and will ensure that</p>			
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		<p>both programs are satisfied.</p> <p>Based on the findings at any stage of the PCM Program, recommendations for remedial measures will be provided, if warranted, at any watercourse, to ensure that the overall objective or reclaiming the watercourse to pre-construction conditions can be achieved. Fish-bearing watercourses crossed will be revisited during years one to five following construction or as per NEB certificate conditions. PCM reporting will take place in years one, three and five.</p> <p>Wildlife and Wildlife Habitat Monitoring</p> <p>The objective of the wildlife and wildlife habitat monitoring component of the PCM Program is to collect sufficient information to determine the effectiveness of mitigation, identify need for adaptive measures, and detect changes in wildlife and wildlife habitat resulting from the Project. The wildlife and wildlife habitat monitoring will use baseline data, collected prior to construction, as a basis for comparison of construction and post-construction monitoring data. Post-construction monitoring will be conducted at intervals over a five-year period (e.g., years one, three and five following completion of reclamation). Monitoring will be completed by qualified biologists.</p> <p>Wildlife monitoring will be designed to detect changes in wildlife habitat, wildlife presence and, where feasible, relative abundance compared to pre-construction conditions. An adaptive management component will be included in the wildlife post-construction monitoring program, whereby results of the wildlife monitoring will be used to determine the need for further monitoring and the need for and nature of remedial measures to address identified issues. For example, remedial</p>			
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		<p>measures may include additional seedling planting at locations that are not demonstrating adequate natural regeneration to alleviate effects on sensitive species in a timely manner and/or installing additional access control and/or signage to discourage human access if there is evidence of new access on site-specific segments of the right-of-way.</p> <p>Noise Monitoring</p> <p>The objective of the noise PCM Program is to evaluate operational noise levels at select stations and terminals where predicted noise levels are approaching provincial regulatory guidelines. The noise monitoring will be conducted by a noise specialist within 1 year of the commencement of operation of the Project or as per NEB certificate conditions. Noise monitoring will be designed to demonstrate compliance with provincial regulatory guidelines.</p> <p>Specifically, the PCM Program will document the following items:</p> <ul style="list-style-type: none">• noise during operations at each site where predicted noise levels are approaching thresholds (based on the Alberta Energy Regulator Directive 038 Noise Control [Alberta Energy Resources Conservation Board 2007], British Columbia Noise Control Best Practices Guideline [BC Oil and Gas Commission 2009] and the results of the Terrestrial Noise and Vibration Technical Report [Volume 5C, Filing IDs A3S1T7, A3S1T8, and A3S1T9]). Specifically, noise monitoring programs will be implemented at Burnaby Terminal, Westridge Marine Terminal and Sumas Terminal. At the Westridge Marine Terminal, the noise monitoring program will be implemented at a time when tankers will be involved in			
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		<p>operations; and</p> <ul style="list-style-type: none">• additional mitigation, if necessary. <p>Air Monitoring</p> <p>The objective of the air emissions PCM Program is to evaluate operational ambient air quality levels at select tank terminals where predicted air concentration levels resulting from the Project are approaching federal, provincial and/or municipal regulatory guidelines or objectives. The ambient monitoring will be conducted by qualified field technologists within 1 year of the commencement of operation of the Project, or as per NEB certificate conditions. Ambient monitoring will be designed to demonstrate compliance with federal, provincial, and municipal regulatory guidelines.</p> <p>Specifically, the PCM Program will document the following items:</p> <ul style="list-style-type: none">• depending on the dispersion modelling, ambient concentrations of appropriate chemicals, such as criteria air contaminants, volatile organic compounds, particulate matter, hydrogen sulphide, mercaptans and other chemicals of interest, would be monitored during operations at each facility where predicted air concentrations resulting from the Project are approaching regulatory thresholds (based on Environment Canada, Alberta, BC and municipal ambient air quality objectives); and• additional mitigation measures to limit emissions at source, if necessary. <p>Water Well Monitoring</p> <p>Post-construction monitoring of well water quality will take place if requested by landowners. Specifically, the water well testing program will document water quality after</p>			
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		<p>construction to assess if a measurable adverse effect has occurred that can be related to activities associated with the Project. Water quality and quantity will be measured, including flow rates, total and dissolved metals, iron related bacteria, sulphur related bacteria, heterotrophic plate count, total coliforms, E. Coli and other routine water quality parameters.</p> <p>All water quality parameters collected will be compared to pre-construction monitoring results and the Guidelines for Canadian Drinking Water Quality (Health Canada 2012). The post-construction monitoring program will determine if well samples exceed any maximum acceptable concentration levels (e.g., total coliform, E. coli bacteria, fluoride, or nitrate) and if water quality and quantity are comparable to pre-construction parameters.</p> <p>Documentation and Reporting</p> <p>The PCM Program results will be submitted to the NEB at the end of each year of monitoring. The PCM Report will be prepared as per Guide AA.2 (post construction environmental monitoring reports) of the NEB Filing Manual (2014). Wetlands and wildlife results will be submitted as detailed appendices to the overall PCM report. The first-year PCM report will also include the Environmental As-Built Report. PCM reporting will include:</p> <ul style="list-style-type: none">• a discussion of the effectiveness of mitigation and reclamation;• the development and implementation of alternative measures to accomplish the reclamation where the initial measures were not successful; and• the identification and documentation of all outstanding environmental issues along with, where warranted, the plans and a schedule for resolution.			
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		<p>The PCM Program will document post-construction environmental issues identified for the Project. Issues that have been successfully mitigated will be listed as resolved.</p> <p>The program will also identify any locations with unresolved environmental issues and the remedial measures planned by Trans Mountain to resolve these issues.</p> <p>In the event that construction-related issues persist past five years of monitoring, post-construction monitoring will continue until remediation measures are considered to be effective and issues are resolved.</p>			
5.1(h)	<p>Please provide details on the standards and procedures to establish recovery plans. Please identify decision-making authority, consultation process, municipal involvement opportunities, scientific methodology and assessments, strategic priorities for recovery, and long term recovery resources.</p>	<p>Please find below Trans Mountain’s response to NEB IR 3.029a (Filing ID A4H1V2). Trans Mountain has made the assumption that use of the term “recovery plan” in your question pertains to species at risk. The Government of Canada is responsible for developing details on the standards and procedures to establish recovery plans. Environment Canada and Fisheries and Oceans Canada are two decision-making authorities responsible for the consultation process, establishing scientific methodology and assessments as well as identifying strategic priorities for recovery and long term recovery resources. The Species at Risk Public Registry is the best source for news, information, and documents related to species at risk in Canada. This web site has been designed to allow all public members, including municipalities, to better understand Canada’s approach to protecting and recovering species at risk, learn about species at risk and what’s being done to help them, and get involved in decision making and recovery activities. The Species at Risk Act supports this, by providing the public with an opportunity to comment on proposed documents. These documents are</p>	<p>Trans Mountain has mistakenly identified the nature of the City’s request. The City’s specific request with respect to recovery plans is not restricted to the context of species-at-risk, but rather refers to all impacts to wildlife as well as the natural environment should they be detected through the results of monitoring plans.</p>	<p>If the Project is approved, the National Energy Board (NEB) will regulate the Trans Mountain Expansion Project. It currently oversees Trans Mountain Pipeline ULC as a federally regulated pipeline company. The NEB holds Trans Mountain accountable for the protection of the natural environment, including wildlife through the life cycle of the Project. This includes reviewing the scientific methodology and impact assessments, strategic priorities for recovery, and long term recovery resources of any environmental plans that are proposed to be implemented by Trans Mountain.</p> <p>Trans Mountain is held accountable for complying with requirements, including, but not limited to:</p> <ul style="list-style-type: none">· applicable acts and regulations (e.g., the <i>National Energy Board Act</i> [NEB Act], the <i>National Energy Board Onshore Pipeline Regulations</i> [NEB OPR], <i>Regulation of Operations and Maintenance Activities on Pipelines under the National Energy Board Act</i>);· applicable standards (e.g., Canadian Standards Association), guidelines, regulatory and advisory letters, and best practices;	<p>Based on the response provided, the City understands that</p> <ul style="list-style-type: none">• The National Energy Board will be the decision-making authority and responsible party for establishing all standards and procedures related to recovery plans of any environmental impacts should they occur;• Such standards and procedures are formulated on a case-by-case basis when issues arise;• The scientific methodology and assessments, strategic priorities for recovery, and long term recovery resources are determined on a case-by-case basis when issues arise;• Trans Mountain is legally responsible to implement any recovery plans identified; and• The National Energy Board

		<p>listed in the current public consultations and presented on the web site.</p> <p>A list of new or updated recovery strategies, management plans or action plans for species listed under Schedule 1 of Species at Risk Act (SARA) that have been released or made available to Trans Mountain in draft, proposed or final form since Trans Mountain filed its Facilities Application in December 2013 are provided in Table 3.029a-1.</p>		<ul style="list-style-type: none">· company commitments and undertakings as stated in project applications and/or public 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 NEB OPR. <p>The NEB 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.</p> <p>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 NEB uses a range of enforcement tools which include:</p> <ul style="list-style-type: none">· notices of non-compliance;· corrective action plans;· Inspection Officer Orders (including stop-work orders);· NEB-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. <p>The NEB's enforcement tools are not mutually exclusive and more than a single measure may be used depending on the situation.</p>	<p>will be the ultimate authority to determine the adequacy of recovery plans.</p> <p>Please confirm that the City's understanding, as stated above, is accurate.</p>
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				<p>If during the lifecycle of the Project or during the post construction environmental monitoring program (typically 5 years or as determined by the NEB in the certificate conditions for the Project), any adverse environmental or socio-economic effects attributed to the Project are identified, the standards and procedures to address any corrective action plans (or otherwise described as recovery plans or remedial action plans) will be mandated by the NEB and implemented by Trans Mountain. Trans Mountain fully intends to address all outstanding matters related to the Project until they are resolved. Depending on the nature of the corrective action plan required, a formal consultation process may be warranted and various government agencies, municipalities, Aboriginal groups, and stakeholders will be engaged. Given the breadth of the question which requests a process and procedure for “all wildlife as well as the natural environment”, it is extremely difficult to define a single approach. Instead, Trans Mountain is accountable for complying with all NEB mandates and requirements which include recovery plans for adverse environmental and socio-economic effects. At such time, the process and procedure for these plans will be defined to address the issue being resolved</p>	
5.1(i)	<p>Please provide rationale if any of the above cannot be provided.</p>	<p>Refer to the responses to parts a) to h) above.</p>	<p>Please see City’s comments on 5.1(a) to (h).</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.</p>	<p>Please see City’s comments on 5.1(a) to (h).</p>

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
5.2(a)	Please provide anticipated annual level of investments into environmental enhancement initiatives that strengthen the ecological health of the Burrard Inlet.	<p>As stated in Attachment 1 to the response to NEB IR No. 3.36a (Filing ID A4H1X7), "Trans Mountain is committed to contribute to a positive environmental legacy by protecting or enhancing (where degraded) the integrity, function and recreational opportunities of some major ecosystems and recreational areas directly affected by the construction and operation of TMEP. This commitment is in addition to any environmental mitigation, reclamation, and offsetting which are required as regulatory conditions for Project construction." The Trans Mountain <i>Environmental Stewardship Program</i> intends to focus on two major themes, based on the major ecosystems along the Project route:</p> <p>1. Aquatic Ecosystems and Fish Habitat 2. BC Parks Beyond standard environmental mitigation and compensation measures, Trans Mountain, in cooperation with local communities, Aboriginal groups, regulatory authorities, and other stakeholders is committed to exploring ways to help further recovery of fish habitat that may be affected by TMEP activities.</p> <ul style="list-style-type: none">• In response to stakeholder feedback and input from Aboriginal groups identifying salmon habitat as a priority for Burrard Inlet, Trans Mountain has already committed a \$50,000 donation in January 2015 to the Pacific Salmon Foundation (PSF) for the purposes of Salmon Habitat enhancement in Burrard Inlet (refer to City of Port Moody IR No. 2.5.2a - Attachment 1).• Trans Mountain has also confirmed it will replace an aging fish pen located at Westridge Terminal that has been used for over 20 years (since 1992) in a community partnership with Kinder Morgan Canada (KMC) and Fisheries and Oceans Canada (DFO) (refer to City of Port Moody IR No. 2.5.2a – Attachment 2). The initiative began in 1992 as part of the federal	<p>Based on the response provided,, the City understands that Trans Mountain has/will:</p> <ul style="list-style-type: none">• Contribute \$50,000 for the purpose of Salmon Habitat enhancement in Burrard Inlet;• Contribute \$27,000 to Bird Studies Canada to enable the study to quantify and map seasonal bird populations by depicting distribution and abundance for individual species and guilds; and• Replace an aging fish pen located at the Westridge Terminal. <p>Apart from these more tangible investments, Trans Mountain cannot "provide an estimate for investment in [other] environmental enhancement initiatives," as well as the annual level of investments into environmental initiatives that aim at strengthening the ecological health of the Burrard Inlet.</p> <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		<p>Salmonid Enhancement Program with the goal of increasing the number of salmon in Burrard Inlet. DFO staff transport Coho and Chinook salmon from local hatcheries to the Westridge Marine Terminal in Burnaby, where the fish are placed in a pen to become acclimatized to salt water. The salmon smolts are fed by Trans Mountain employees for seven to ten days, before the fish are released with help from students from Westridge Elementary School</p> <p>Trans Mountain also sponsored a study by Bird Studies Canada (BSC) to map bird populations in Burrard Inlet area in 2015. Trans Mountain donated \$27,000 to BSC, and Port Metro Vancouver matched the donation to enable the study to occur. The study will quantify and map seasonal bird populations by depicting distribution and abundance for individual species and guilds. BSC will be making the maps publicly available and writing summary accounts so that local stakeholders (industry, government and environmental organizations) can use the information in planning for the appropriate conservation and protection of marine birds as Burrard Inlet continues to develop (refer to City of Port Moody IR No. 2.5.2a - Attachment 3).</p> <p>In addition to the early commitments above, Trans Mountain will continue to identify, select and evaluate potential environmental stewardship initiatives that align with priority areas of the program. Trans Mountain is not in a position to provide an estimate for investment in environmental enhancement initiatives. Further to responses to City of Port Moody IR No. 2.2.2a, Trans Mountain will wait for the NEB's determination of harm before proceeding with further consultation on the marine fisheries offset plan. As per Trans Mountain's response to City of Port Moody IR No. 2.2.2d "Alternative offsetting measures brought forward during consultation will be evaluated for inclusion in the final offsetting plan. Factors that will be considered include: ecological benefits of the</p>			
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		<p>offsetting measure; alignment with Fisheries and Oceans Canada’s policy and approach to offsetting; construction feasibility; likelihood of success; and cost.”</p> <p>Until such time the required offsets have been determined, Trans Mountain will not be able to commit long term funding over and above the requirements for offsets.</p>			
5.2(b)	Please provide rationale if the above cannot be provided.	Refer to response to City of Port Moody IR No. 2.5.2a.	Please see City’s comments on 5.2(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City’s comments on 5.2(a).

IR No.	IR Wording	Trans Mountain's Response to IR	Intervenor's Explanation for Claiming IR Response to be Inadequate	Trans Mountain's Response to Motion	Intervenor's Response
5.3(a)	Please provide details on any plans for Trans Mountain to provide compensatory habitat for all bird species impacted by the proposed project or other measures to compensate expected impacts to the bird populations.	<p>There is no plan to provide compensation for marine birds since no significant adverse environmental effects of Project construction or operations are expected on marine birds (refer to Section 7.6.12 of Volume 5A; Filing ID A3S1R0).</p> <p>As discussed in Section 7.2.10.10 of Volume 5A (Filing ID A3S1Q9), the Project crosses the Sowaqua Spotted Owl Wildlife Habitat Area (WHA) (2-498) and Trans Mountain committed to developing a mitigation plan for spotted owl in consultation with BC Ministry of Forests, Lands and natural Resource Operations (BC MFLNRO), which was anticipated to include measures to avoid, mitigate, restore and offset adverse effects on spotted owl habitat. Since this is a Long-Term Owl Habitat Area (LTOHA), BC MFLNRO expects offsetting measures. With application of the appropriate measures (which includes the spotted owl mitigation plan), the residual Project effects on spotted owl were concluded to be not significant. The development of the Spotted Owl Mitigation Plan has been initiated and is being completed in consultation with BC MFLNRO's Spotted Owl Recovery Coordinator. The Spotted Owl Mitigation Plan will be filed with leave of the National Energy Board 6 months prior to commencing construction within the Sowaqua Spotted Owl WHA. A need for offsets to address residual effects of the Project on other terrestrial bird species has not been identified, and there is no plan for offsets for bird populations other than spotted owl.</p>	<p>Based on the response, the City understands that:</p> <ul style="list-style-type: none"> • A mitigation plan for impacted birds will only be developed for Spotted Owl; • A compensation plan may be developed for Spotted Owl; • No mitigation and/or compensation plan will be developed for any other bird species; and • The Spotted Owl Mitigation Plan will not be available for review by Intervenor within the NEB Hearing Process. <p>Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.</p>	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.
5.3(b)	Please provide details related to method of compensation, source of long term funding, and implementation plans.	<p>No compensation is planned for marine birds (refer to the response to City of Port Moody IR No. 2.5.3a).</p> <p>The method of compensation for spotted owl will be discussed and determined in consultation with BC Ministry of Forests, Lands and Natural Resource Operations (BC MFLNRO) Spotted Owl Recovery Coordinator. Information</p>	Please see City's comments on 5.3(a).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

		on this topic will be provided in the Spotted Owl Mitigation Plan to be filed with the National Energy Board 6 months prior to commencing construction within the Sowaqua spotted owl wildlife habitat area (WHA). Refer to the response to NEB IR No. 1.046c (Filing ID A3W9H8) for further information.			
5.3(d)	Please provide rationale if any of the above cannot be provided	Refer to the responses to parts a) to c) above.	Please see City's comments on 5.3(a) and (b).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application and no further response is required.	Please see City's comments on 5.3(a) and (b).

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
5.4(b)	Please provide details on the implementation plan for the recommendation to mitigate sensory disturbances to marine mammals, including Southern resident killer whale, Humpback whale, and Steller sea lion.	<p>Sensory disturbance caused by underwater noise from vessel traffic, including tankers and tugs, is a concern for the maritime industry as a whole.</p> <p>Port Metro Vancouver (PMV) is engaged in working collaboratively with regulators and industry to develop future guidelines or standards for reducing underwater noise from commercial vessels in local waters. Once such guidelines are available, Trans Mountain shall require Project tankers to adopt those as best practice as part of its Tanker Acceptance Standards.</p> <p>PMV has established the Enhancing Cetacean Habitat and Observation (ECHO) Program in collaboration with government agencies, First Nations, marine industry users, non-government organizations and scientific experts, to better understand and manage the potential impacts to cetaceans from commercial vessel activities in BC coastal waters. In addition, PMV participates in Green Marine, a voluntary environmental program for the maritime industry to reduce its environmental footprint. Trans Mountain is participating in both initiatives and continues to raise awareness of such initiatives with its shippers and carriers, with the aim to promote the selection and nomination of modern and efficient vessels operated to current best practices and meeting all local and international regulations.</p>	<p>Based on the response provided, the City is of the understanding that Trans Mountain does not have a plan to implement measures to mitigate sensory disturbances to marine mammals unless otherwise required by regulation or policy adopted by government agencies.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>	<p>As previously discussed, sensory disturbance of marine mammals is caused by underwater noise from all manner of vessel traffic, whether tankers and tugs, or ferries, container ships, cruise ships, fishing vessels, or pleasure crafts, and is thus a concern for the maritime industry as a whole. Trans Mountain is working proactively to identify mitigation measures and programs that can be developed across the industry. This, by necessity, will be a collaborative venture, and Trans Mountain is committed to its success. Trans Mountain disagrees with the statement that any ocean noise policies or programs it participates in will need to be ‘required by regulation or policy adopted by government agencies’. Programs such as Green Marine are voluntary, as may be any future guidelines determined collaboratively with regulators and industry; however, Trans Mountain has committed to requiring tankers to adopt these guidelines (once developed) voluntarily as best practice as part of its Tanker Acceptance Standards.</p>	<p>Based on the response provided, the City is of the understanding that Trans Mountain does not, at this time, have a documented <u>plan</u> to implement the recommendations to mitigate sensory disturbances to marine mammals.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>
5.4(c)	Please provide details on the legal commitment and responsibilities of Trans Mountain to implement the recommendations suggested if the proposed Project is approved.	<p>Consistent with the National Energy Board draft conditions (Draft conditions and regulatory oversight; Filing ID A3V8Z8), Trans Mountain will 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</p>	<p>The City’s request asks Trans Mountain to provide details on the legal commitment of Trans Mountain to implement the recommendations suggested to mitigate sensory disturbance to marine mammals as identified in the Application, if the proposed Project is approved.</p>	<p>In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required</p>	<p>Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.</p>

		<p>otherwise committed to during the OH-001-2014 proceeding.</p> <p>Paragraph 52(1)(b) of the National Energy Board Act (“NEB Act”) authorizes the Board to issue certificates subject to such terms and conditions as it considers necessary or desirable in the public interest. Paragraph 31(a) of the NEB Act requires a company to comply with all applicable terms and conditions to which the certificate is subject prior to the commencement of construction of a section or part of a pipeline. Furthermore, subsection 30(2) of the NEB Act states that “[n]o company shall operate a pipeline otherwise than in accordance with the terms and conditions of the certificate issued with respect thereto.”</p>	<p>Based on the response provided, the City understands that unless the mitigations recommendations suggested are included in the draft conditions of NEB, Trans Mountain will not implement the mitigation measures.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>		
5.4(d)	Please provide rationale if there is no legal commitment responsibility in relation to the implementation of these recommendations.	<i>Refer to the response to City of Port Moody IR No. 2.5.4c.</i>	Please see City’s comment on 5.4(c).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.
5.4(e)	Please provide rationale if any of the above cannot be provided.	<i>Refer to the responses to parts a) to d) above.</i>	Please see City’s comment on 5.4(b) to (d).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain’s response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain’s response, is required	Trans Mountain’s response does not address the City’s explanation for the inadequacy of Trans Mountain’s original response to the City’s IR No.2 request. The City reiterates that it requires a full and adequate response to the City’s IR No.2 requests.

IR No.	IR Wording	Trans Mountain’s Response to IR	Intervenor’s Explanation for Claiming IR Response to be Inadequate	Trans Mountain’s Response to Motion	Intervenor’s Response
6.3 (a)	Please provide a copy of the Natural Hazards Management Program identified in Table 7.10-1 of the Application.	<p>All of the elements contained in the Natural Hazard Program document have been discussed either in application or in responses to other questions. Please refer to NEB IR No. 3.097 (Filing ID A4H1V2).</p> <p>Kinder Morgan Canada will not provide a copy of the Natural Hazards Management Program document because it is a proprietary document and it will not be made publically available. With regard to the seismic hazards in the preamble, Volume 4A, Section 2.9.3 of the Facilities Application (Filing ID A3S0Y8) briefly describes the principles to be used in the seismic design of the new pipelines and facilities (including pump stations and terminals) proposed as part of the Project. Seismic design of earthen, concrete, and steel structures, including foundations and marine piles, containment berms, pipe racks, other support systems, and piping, will be in accordance with the latest editions of the National Building Code of Canada, the Alberta Building Code, the British Columbia Building Code, and other recognized standards and practices, as applicable to the structures and locations. Seismic design of storage tanks, including consideration of sloshing and other effects, will be in accordance with the latest edition of the American Petroleum Institute (API) Standard 650, Welded Tanks for Oil Storage, Annex E, the recognized North American standard. Seismic design will be undertaken by experienced and competent professional engineers, registered in the province where the pipeline segment or facility is to be located. Geotechnical programs, which will include borehole and other investigative methods to obtain sub-surface data, will be</p>	<p>The City requested a copy of the Natural Hazards Management Program. Trans Mountain responded by stating that the Program, as referenced in the Application, cannot be provided as it is a proprietary document.</p> <p>The City requires information on why this document is considered to be proprietary and why it cannot be provided with any proprietary information contained within removed.</p>	<p>Program documents are internal company property and are not developed or written for public consumption. The information contained within these documents goes into specific details that are only relevant to company personnel. However, Trans Mountain will most certainly answer questions that the City of Port Moody has on the management of seismic hazards on the proposed pipeline system.</p>	<p>The Natural Hazards Management Program is stated in the application as an element to address seismic hazards. Trans Mountain should be able to provide a copy with the removal of any proprietary information.</p> <p>The City reiterates that it requires a copy of the Natural Hazards Management Program, as stated in the original request.</p>

		<p>conducted, and the results and recommendations of registered professional engineers and geologists will be used to inform the seismic designs. Fabrication of components, construction, and installation will be rigorously inspected to ensure that the prescribed designs are followed and structural integrity will be verified by testing, as applicable. General information on design and quality verification principles is included in Volume 4A, Sections 2.1 through 2.7 and, Volume 4B, Sections 3.4.8 through 3.4.13 of the Facilities Application (Filing ID A3S0Y8 and A3S0Y9). Numerous other references to design principles and features and quality assurance methods exist throughout Volume 4A and 4B of the Facilities Application. Trans Mountain is highly confident that these approaches will ensure that the new pipelines and facilities will be able to withstand large earthquake scenarios with minimal damage or loss of integrity.</p> <p>During operations Trans Mountain’s pipelines are managed through a Pipeline Integrity Management Program that utilizes regular re-evaluations of risk as the basis for identifying and prioritizing assessment and risk mitigation actions. The continual re-evaluation of geohazard threats, such as the seismic threat that is referenced in the information request is an integral part of Trans Mountain’s Pipeline Integrity Management Program. In this regular re-evaluation of risk, and as further explained in Trans Mountain’s response to NEB IR No. 1.92c (Filing ID A3W9H9), populated areas, such as those typically found in the vicinity of schools, are characterized as High Consequence Areas. As such, they receive an enhanced weighting in the risk assessment, and a higher priority for any consideration of assessment and mitigation.</p>			
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		<p>Seismic hazard screening assessments have been completed on the seismically active areas of the existing pipeline and where hazards have been evaluated and determined to pose a potential integrity threat, detailed studies have been completed to assess the threat level and determine mitigation options. A number of projects have been completed to address threats due to seismic hazards. An example of seismic risk mitigation was the Horizontal Directional Drill (HDD) replacement of the existing Fraser River pipeline crossing in 2003.</p> <p>In the event of an earthquake, the Trans Mountain Control Centre Operator (CCO) would receive notification from either a SCADA alarm triggered by a seismic switch (there are three located on Trans Mountain’s pipeline system at the Burnaby Terminal, Sumas Station, and Laurel Station in Washington State), or from other sources such as the USGS website. Upon notification, the CCO would immediately determine if any assets are located within the Potential Damage Radius using reports of the earthquake magnitude and location and the Geographic Information System (GIS). The Potential Damage Radius is a chart that has been created by Trans Mountain’s geotechnical consultant using datasets of historic liquefaction, lateral spreading, landsliding and rockfalls as a result of seismic events worldwide for various levels of seismic activity. The chart provides a first indication of whether potentially damaging wave propagations or ground displacements are likely at the facility locations based solely on the size of earthquake and distance from the epicentre (typically the only information available within minutes of an event occurring) and conservatively assuming a shallow event.</p> <p>If any assets are located within the Potential Damage Radius, an immediate shutdown of all</p>			
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		<p>facilities and pipelines within that radius would occur. A plan would then be put into place to inspect each facility and pipeline within the impacted area, including a thorough damage and hazard assessment.</p> <p>Modern buried steel pipelines with welded joints are less susceptible to damage from seismic wave propagation than other pipeline types (including pre-1950s steel, cast iron, or concrete segmented lines). Permanent ground displacements along the pipeline alignment would be the main indicator of possible pipeline damage.</p> <p>The pipeline would not be restarted until all inspections confirmed that no permanent ground displacements had occurred on the pipeline route and no other damage was observed on the pipeline or within facilities. In the event that ground displacements are observed on the pipeline route, additional inspections and any necessary repairs would be carried out to confirm the integrity of the piping before returning it to service. Any required repairs to ensure facilities equipment is fit for service would be completed before allowing the facilities to be restarted. Trans Mountain would notify the Transportation Safety Board of Canada any time the pipeline was shut down for safety reasons. Restart of the pipeline would not be permitted until a process was completed to authorize the pipeline restart following a safety shutdown.</p>			
6.3 (b)	Please provide the assessment of the site-specific seismic hazard potential at the Westridge Terminal, as well as the portion of the pipeline located within Metro	The preliminary seismic assessment desktop study, included in the Facilities Application, Volume 4A, Appendix J, Seismic Assessment Desktop Study Report (Filing ID A3S1F6), investigated seismic hazards related to liquefaction and seismically triggered landslides along the proposed Project corridor. Based on	Based on the response, the City understands that Trans Mountain will submit the assessment of site-specific seismic hazard potential at the Westridge Terminal, as well as the portion of the pipeline located within Metro Vancouver, after the period of which Intervenor would have an opportunity to	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.

	Vancouver.	<p>the findings of the desktop study, the liquefaction hazard potential was classified for different areas along the corridor as “very high”, “high”, “moderate”, “low”, or “very low”. Detailed sub-surface investigations at various sites with “very high” liquefaction potential are underway and the liquefaction and lateral spreading analysis and geotechnical report for those sites will be filed with the National Energy Board (NEB) by March 31, 2015. Site specific sub-surface investigations for “high” and “moderate” liquefaction potential sites along the corridor will be performed in a phased approach on select sites starting in spring/summer 2015, and will be based on findings from the investigation of the “very high” liquefaction potential sites and the potential for impact to the proposed pipeline.</p> <p>The assessment of the site-specific seismic hazard potential at Westridge Marine Terminal (WMT) is ongoing. Marine geotechnical drilling was completed in Q3, 2014 and Trans Mountain will file the preliminary WMT marine-side geotechnical report with the NEB by March 31, 2015. The final WMT marine-side geotechnical report, with seismic recommendations, is anticipated to be completed by the end of Q2, 2015. Shore-side geotechnical drilling is scheduled for February, 2015 and the final report, with seismic recommendations, is anticipated to be completed by the end of Q3, 2015. The recommendations in the reports will be used to inform detailed design, which will begin in late Q3, 2015, assuming the current overall Project schedule is maintained.</p> <p>Trans Mountain will file the remaining WTM geotechnical reports with the NEB as a condition of future Project approval, if such approval is granted or condition issued.</p>	<p>review and request additional information and clarification from Trans Mountain on the said documents.</p> <p>Please confirm that the City’s understanding as stated above accurately reflects Trans Mountain’s response.</p>		
6.3	Please provide details of	The requirements for vibration detection	Based on the response, the City understands	The vibration monitoring equipment will likely	Based on the response, the City understands

(c)	any vibration monitoring equipment installed at the Westridge Terminal, as well as the portion of the pipeline located within Metro Vancouver.	equipment at Westridge Terminal are currently being considered and will be finalized during the detailed engineering and design phase of the project. Vibration detection equipment will be installed on the new pumps to be located at Burnaby Terminal and connected to the new pipelines that will run from Burnaby Terminal to Westridge Terminal. For further details associated with this equipment please refer to Volume 4A of the Application Section 3.4.1.10.2 Page 4A-58 (Filing ID A3S0Y8). This new vibration detection equipment will be in addition to vibration detection equipment currently installed at Burnaby Terminal. Aside from standard accelerometers designed to protect rotating equipment from damage due to vibration, a seismic switch is installed at Burnaby Terminal that is designed to detect the low frequency vibrations from earthquake shaking and configured to alarm on the SCADA system in the KMC control centre. Further, the TMPL supervisory control and data acquisition system is currently configured to receive and display real time earthquake notification data from a third-party source.	that Trans Mountain will submit details of any vibration monitoring equipment installed at the Westridge Terminal, as well as the portion of the pipeline located within Metro Vancouver, after the period of which Intervenor would have an opportunity to review and request additional information and clarification from Trans Mountain on the said documents. Please confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.	be chosen in Q2 or Q3, 2016, along with other instrumentation assuming the current overall project schedule is maintained, and after a careful evaluation of available and suitable technology.	that Trans Mountain will submit details of any vibration monitoring equipment installed at the Westridge Terminal, as well as the portion of the pipeline located within Metro Vancouver, after the period of which Intervenor would have an opportunity to review and request additional information and clarification from Trans Mountain on the said documents. Please simply confirm that the City's understanding as stated above accurately reflects Trans Mountain's response.
6.3 (d)	Please provide rationale if any of the above cannot be provided.	Refer to response b) above.	Please refer to City's comments 6.3(a) to (c).	In accordance with Board Ruling No. 33 (Filing ID A63066), Trans Mountain's response provided sufficient information and detail for the Board in its consideration of the application. No further response, or summary of Trans Mountain's response, is required.	Trans Mountain's response does not address the City's explanation for the inadequacy of Trans Mountain's original response to the City's IR No.2 request. The City reiterates that it requires a full and adequate response to the City's IR No.2 requests.