

**Hearing Order OH-001-2014
Trans Mountain Pipeline ULC (Trans Mountain)
Application for the Trans Mountain Expansion Project
Written argument-in-chief of the City of Victoria**

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Summary

1. This is the final written argument of the Corporation of the City of Victoria (“Victoria”) with respect to Trans Mountain’s application to the National Energy Board (the “Board”) for a certificate of public convenience and necessity for the Trans Mountain Expansion Project (the “Project”).
2. For the reasons outlined below, Victoria submits that the Board must recommend that Trans Mountain’s application be dismissed because the Project is not in the public interest.¹
3. The public interest is defined in the Board’s Strategic Plan as “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.”² The Project is not in the public interest because the risk to communities located along the tanker shipping route far outweigh any potential benefits.
4. The Board has identified twelve issues that will be considered during the hearing. The issue that is most relevant to Victoria and has been the focus of Victoria’s participation in the hearing to date is issue #5: “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.” This submission will also focus on this issue.

¹ Section 52(2) of the [National Energy Board Act](#) outlines the considerations that the Board may take into account in making its recommendation regarding an application, including “any public interest that in the Board’s opinion may be affected by the issuance of the certificate or the dismissal of the application.”

² Found at <https://www.neb-one.gc.ca/bts/whwr/gvrnnc/strtgcpIn-eng.html>

5. The lack of submissions on the other eleven issues identified by the Board does not mean that Victoria has no concerns related to those issues or with the broader issues associated with the Project, such as the Project's contribution to climate change.

Victoria's Interest in the Project

6. Victoria is located on the southernmost tip of Vancouver Island. The shipping lanes for tankers carrying petroleum products from the Trans Mountain pipeline pass offshore within several kilometres of Victoria.
7. Victoria was incorporated on August 2, 1862 and is the Capital City of British Columbia.
8. Victoria is an urbanized municipality of 19.47 square kilometres, which serves as the metropolitan core for the Capital Region. According to the most recent federal census, in 2011, Victoria had a population of 80,017. The Capital Region had a population in 2011 of 344,615 and a land area of 2,340.48 square kilometres.³
9. If the Project is approved, the volume of product and number of tankers off the shores of Victoria will dramatically increase.
10. Victoria residents and Victoria City Council are very concerned about the environmental and socio-economic impacts to Victoria, its residents and businesses from Trans Mountain's proposed increase in tanker traffic, and particularly the impact of an oil spill.
11. Victoria City Council is responsible for:
 - providing for good government of its community,
 - providing for services, laws and other matters for community benefit,

³ Exhibit C84-2-2 – City of Victoria Evidence Submission ([A4L8Y1](#)) at page 2, paragraph 2.

- providing for stewardship of the public assets of its community, and
 - fostering the economic, social and environmental well-being of its community.⁴
12. A marine oil spill from a project tanker off the coast of Victoria will result in significant harm to the community's public assets and its economic, social and environmental well-being.
13. Public engagement conducted for purposes of this hearing clearly showed that Victoria residents are opposed to the Project.⁵ On April 30, 2015, Victoria formally expressed "its opposition to the proposed Trans Mountain Pipeline Expansion Project in light of the substantial risk to the economy and ecology."

Project Risk

14. Victoria's environment, economy and social well-being will be placed at great risk if the Project proceeds. Risk is often expressed as the probability of an event multiplied by its consequence. If the Project proceeds, the probability of a marine oil spill will increase significantly and the consequences could be catastrophic.
15. Victoria does not agree with Trans Mountain's assertion that the marine oil spill risk will remain the same if the Project is approved. It is clear that an increase in tanker traffic leads to an increased risk of an accident. Trans Mountain's own evidence indicates that the probability of a marine oil spill along the tanker route will increase significantly because of the Project from 1 spill in 309 years to 1 spill in 46 years.⁶

⁴ As outlined in section 7 of the [Community Charter](#), the provincial legislation governing British Columbia municipalities.

⁵ Exhibit C84-1-2 – City of Victoria Kinder Morgan Trans Mountain Pipeline Expansion Proposal Engagement Summary ([A4G3E6](#)) at page 38.

⁶ Exhibit B18-30 – V8A 5.2.5 to F5.3.2 MAR TRANS ASSESS ([A3S4Y4](#)) at page 1.

16. Victoria also does not agree that the current level of risk posed by tankers loading products from the existing pipeline is either acceptable or consistent with the public interest. If, as Trans Mountain suggests, the risk of an accident will be significantly reduced by its proposed enhanced risk control measures, those measures should be implemented now, regardless of whether the Project is approved.

Marine oil spill probability

17. Evidence presented by other intervenors demonstrates that even Trans Mountain's anticipated seven-fold increase underestimates the increased probability of a marine spill if the Project were to proceed.
18. An expert review of Trans Mountain's Marine Transport Risk Analysis commissioned by the Cowichan Tribes finds that "key conclusions drawn from the analysis are incomplete and misleading."⁷ The authors of the review identify a number of weaknesses associated with Trans Mountain's marine spill probability assessment, including the use of underlying data and inputs based on data and operating practices in the North Sea in the 1990's, rather than newer, local data and a failure to consider higher probability, lower consequence incidents. They conclude that "risk in the system is likely underpredicted."⁸
19. A report prepared for the Tsawout First Nation, Upper Nicola Band and Tsleil-Waututh Nation compares spill risk estimates using various accepted methodologies and concludes that:

Given the weaknesses in the methodology used in the TMEP application and the fact that this estimate is an outlier significantly below the estimates based on other methods,

⁷ Exhibit C86-12-5 – Appendix G to Written Evidence of Cowichan Tribes ([A4L9Z8](#)) at page 2.

⁸ Ibid. at page 3.

*the tanker spill risk estimate NewCase1c in the TMEP application is an inaccurate and unreliable estimate of tanker spill risk.*⁹

Potential marine oil spill effects - general

20. An oil spill along the tanker route will have significant, and potentially catastrophic, environmental, economic and social impacts to communities in the vicinity of the spill.
21. Trans Mountain identifies the following impacts that would result from a marine oil spill:
- environmental impacts on shorelines and near shore habitats, marine fish communities, marine birds and marine mammal and their respective habitats
 - economic impacts, such as impacts on commercial fishing, tourism and recreation and property damage
 - acute and chronic impacts on human health, and
 - impacts on community well-being, including psychological effects, impacts on cultural and heritage resources, aboriginal culture and subsistence use and local infrastructure and services.¹⁰
22. Victoria disagrees with Trans Mountain's conclusion that these environmental, economic and social impacts are not significant because they are not likely. It is clear that the Board considers likelihood of an adverse effect to be a separate determination from the effect's significance. The Board Filing Manual provides the following guidance to applicants evaluating the significance of environmental and socio-economic effects:
- Evaluating environmental and socio-economic effects consists of assessing:*
- *whether the effects are adverse;*
 - *whether the adverse effects are significant; and*

⁹ Exhibit C355-15-27 – Tsawout First Nation Expert Report. An Assessment of Spill risk for the TMEP ([A4Q1G5](#)) at page 5.

¹⁰ Exhibit B18-33 – V8A 5.5.2 F5.5.2 to 5.6.2.2 MAR TRANS ASSESS ([A3S5Q3](#)) at pages 4 to 26.

- *whether the significant adverse effects are likely.*

.....

The following criteria may be useful in assessing the significance of a project's adverse effects:

- *magnitude;*
- *duration;*
- *frequency;*
- *geographic extent;*
- *ecological context; and*
- *reversibility or degree of permanence.*

....

Assessing the likelihood of significant adverse effects must be based on the probability of occurrence and state the level of scientific uncertainty.¹¹

23. It is also clear from the language used to frame issue #5, that the Board must consider all "potential" effects of marine shipping activities in making its recommendation, and not just those that are "likely."
24. If the criteria outlined by the Board in its Filing Manual are used in assessing the significance of the Project's adverse effects, it is clear from Trans Mountain's own evidence that the potential effects of a marine oil tanker accident or malfunction are significant because they will be widespread, long-lasting and permanent.
25. Serious adverse socio-economic effects identified by Trans Mountain include permanent loss of critical heritage resources:

Heritage resources could be affected by a spill in a number of ways. Oil and clean-up activities can directly damage artifacts and sites or disturb their context, which may result in permanent loss of information critical to scientific interpretation.¹²

¹¹ [NEB Filing Manual](#) at page 86

¹² Exhibit B18-33 – V8A 5.5.2 F5.5.2 to 5.6.2.2 MAR TRANS ASSESS ([A3S5Q3](#)) at page 9.

26. Trans Mountain indicates that social impacts of a spill can persist for years and include an increase in destructive behaviours, such as drinking, drug abuse and domestic violence and an increase in serious medical conditions, such as depression, anxiety and post-traumatic stress disorder:

Research has shown that in the event of an oil spill, affected communities and individuals may experience a number of psycho-social effects. Culture is an important factor that affects the potential psycho-social effects of a spill. Documented effects include: declines in traditional social relations with family members, friends, neighbours and coworkers; a decline in subsistence production and distribution activities; perceived increases in the amount of and problems associated with drinking, drug abuse, and domestic violence; and a decline in perceived health status and an increase in the number of medical conditions verified by a physician including depression, anxiety and post-traumatic stress disorder. These effects may be short-term or persist for years in individuals or groups most directly affected by a spill.¹³

27. Trans Mountain also identifies serious environmental impacts associated with a marine oil spill. For example, Trans Mountain indicates that death of fish, birds, seals, sea lions, whales and otters should be expected from a spill at Race Rocks, a provincially-designated Ecological Reserve, which is located close to Victoria and selected for spill modeling purposes as “Location G.”

Shorebirds generally have low sensitivity to oiling when compared to other guilds... Heavily oiled individuals would probably die; however, and even lightly oiled individuals could transfer sufficient oil to eggs to cause egg mortality, if exposure occurred shortly before or during the period when eggs were being incubated. the potential for environmental effects on shorebirds of crude oil exposure from an accidental spill at this site is high.¹⁴

....

¹³ Ibid. at page 10.

¹⁴ Exhibit B18-35 – V8A 5.6.2.3.1 to T5.6.2.23 MAR TRANS ASSESS ([A3S4Y8](#)) at pages 11 and 12.

*There is a relatively high probability of exposure for aquatic birds in the event that an oil spill occurs. ... it is likely that seabirds would be exposed to oil, and would die as a result of that exposure, so that the effect magnitude would be high.*¹⁵

....

*There is a relatively high probability of exposure for seals and sea lions in the event of an accidental oil spill. While some level of negative effect would be expected for animals exposed to oil, the effects would not likely be lethal, except in the case of weaker animals such as pups or older and diseased animals.*¹⁶

....

*There is a relatively high probability of exposure for whales should an oil spill occur at this location. Some level of negative effect would be expected for animals exposed to oil, but the effects would not likely be lethal, except in the case of weaker animals such as calves or older and diseased animals, or animals that were exposed to heavy surface oiling and inhalation of vapours from fresh oil, as could occur in the immediate vicinity of the spill location.*¹⁷

....

*There is a relatively high probability of exposure for some of otters along the marine transportation route, in the event of an oil spill. Some level of negative effect would be expected for animals exposed to oil. Exposure during the winter season would be more stressful than exposure during the summer, but in either case, the combination of hypothermia and damage to the gastro-intestinal system caused by oil ingested through grooming the fur would have the potential to cause death.*¹⁸

28. Evidence from other intervenors supports the conclusion that the potential effects of an accident or malfunction associated with a Project-related tanker would be significant.
29. Fisheries and Oceans Canada's "Recovery Strategy for the Northern and Southern Resident Killer Whales (*Orcinus orca*) in Canada" clearly states that the impact of an oil spill on the killer whale population could be catastrophic:

¹⁵ Ibid. at page 12.

¹⁶ Ibid. at page 16.

¹⁷ Ibid.

¹⁸ Ibid.

While the probability of either northern or southern resident killer whales being exposed to an oil spill is low, the impact of such an event is potentially catastrophic. Both populations are at risk of an oil spill because of the large volume of tanker traffic that travels in and out of Puget Sound and the Strait of Georgia (Baird 2001, Grant and Ross 2002) and the proposed expansion of tanker traffic in the north and central coast of BC.

.....

Killer whales do not appear to avoid oil, as evidenced by the 1989 Exxon Valdez oil spill in Prince William Sound, Alaska. Less than a week after the spill, resident whales from one pod were observed surfacing directly in the slick (Matkin et al. 1999). Seven whales from the pod were missing at this time, and within a year, 13 of them were dead. This rate of mortality was unprecedented, and there was strong spatial and temporal correlation between the spill and the deaths.¹⁹

30. A report filed by BC Nature and Nature Canada shows that a catastrophic marine bird mortality event could result from a marine oil spill:

As an example, the Fraser River Estuary, which includes Boundary Bay, Roberts Bank and Sturgeon Bank, provides important habitat for hundreds of thousands of migratory birds during the spring migration period. If an oil spill resulted in oiling of these areas during the spring migration period, a catastrophic marine bird mortality event involving hundreds of thousands (or more) birds could potentially ensue. Further, many of the marine bird species involved in this mortality event would be species at risk. This is one of several potential worst-case ecological oil spill scenarios, in terms of marine birds, yet this possibility and its potential effects were not assessed in the proponent's PQERA. Although this is a low probability scenario it is one of extremely high consequence; estimates of ecological consequences and recovery times following a worst-case ecological scenario such as this are warranted.²⁰

31. The City of Vancouver commissioned independent expert evidence to provide an assessment of the potential economic cost of an oil spill in the Burrard Inlet on key ocean-dependent economic activities within the City of Vancouver. Professor Sumalia

¹⁹ Exhibit C356-2-8 – DFO 2011 Recovery Strategy for the Northern and Southern Resident Killer Whales in Canada ([A3W8G5](#)) at page 47.

²⁰ Exhibit C24-12-2 – BC Nature and Nature Canada Written Evidence ([A4L8K8](#)) at page 15.

estimates that, if a 16,000 m³ hydrocarbon spill were to occur in Burrard Inlet, Vancouver's ocean-dependent activities could suffer total losses up to \$1,230 million in output value, 12,881 person years of employment and \$757 million in GDP.²¹

32. The examples cited above are only a small sampling of the evidence filed by intervenors that demonstrates the significant environmental and socio-economic impacts associated with a marine oil spill.
33. The perceptions of members of the public also provide a useful measure of the significance of the environmental and socio-economic assets that will be affected in the event of a marine oil spill.
34. Evidence presented by both Victoria and other intervenors demonstrates that members of the public highly value the assets that may be impacted by a marine oil spill and would consider any damage to those assets to be significant.
35. Victoria residents are very concerned about the possible consequences of a marine oil spill. Top concerns for respondents to a City-hosted survey were:
 - impacts to marine mammals and birds (93% very concerned)
 - impacts to fish populations (92% very concerned)
 - impacts to water quality (90% very concerned)
 - impacts to human health (74% very concerned), and
 - damage to cultural and historic resources (74% very concerned).²²
36. Individual survey responses demonstrate that Victorians feel the impact of a marine oil spill will be significant:

²¹ Exhibit C77-27-1 – Written Evidence of the City of Vancouver ([A4L7V8](#)) at pages 92 to 94.

²² Exhibit C84-1-2 – City of Victoria Kinder Morgan Trans Mountain Pipeline Expansion Proposal Engagement Summary ([A4G3E6](#)) at page 62.

- *A spill would be terrible for the south island especially the impact on wildlife, birds, fish and other sea and shore creatures*²³
- *A spill could ruin our coastline tourism and all the economic benefits related to the ocean that we currently enjoy*²⁴
- *Nothing, no amount of riches or goods, can make up for losing the beauty and health of our home. It should never be risked.*²⁵
- *I have small children and when I think of what we are risking for the sake of the dollar it makes me very sad. We live in an ecological paradise and we're willing to throw it all away for NOTHING.*²⁶
- *Regardless of how much money this project brings in, once there is an oil spill the environment is destroyed forever. We live in the most beautiful area of Canada and tourism is an important part of our economy.*²⁷
- *At worst a spill would catastrophically undermine the integrity of our invaluable natural marine resources.*²⁸

37. As self-governing peoples with aboriginal rights and title, the perspectives of First Nations communities are particularly important when considering the values that may be affected by a marine oil spill and the significance of those values to individual communities. For example, the Matsqui First Nation presented as evidence its own assessment of impacts under various potential spill events, which focused on key Matsqui First Nation values and found that the impacts of a spill on those values would be very significant:

We see these values as an expression of who we are and of what it means to be a self-governing people. The values are an expression of our aboriginal rights and title: to use and occupy, manage, govern and rely upon our lands, waters and resources. They are also an expression of our human rights: to be physically and emotionally healthy, to have positive relationships within our community and with the communities around us, and to

²³ Ibid. at page 54.

²⁴ Ibid. at page 66.

²⁵ Ibid. at page 69.

²⁶ Ibid. at page 69.

²⁷ Ibid. at page 73.

²⁸ Ibid. at page 73.

maintain our culture and our traditions while pursuing growth and economic self-sufficiency.

.....

The Impact Assessment concludes that not only are spills more likely than predicted by the Proponent, but that the impacts of such spills on Matsqui First Nation values would be very significant. Rather than purely a theoretical analysis, the use of scenarios enabled us to understand what a major oil spill would actually mean to our way of life.

Not surprisingly, the most profound impact would be a spill of oil that reaches our fishing area at the Fraser River or that otherwise affects the Matsqui fishery. The Impact Assessment describes the potentially devastating implications of the loss of the fishery on our way of life. While the precise implications of a spill of diluted bitumen on fish and fish habitat is still uncertain, the scenarios demonstrate the risk that is expected to be borne by our community, which is so heavily dependent on fishing and fish to sustain our culture and to feed our people.

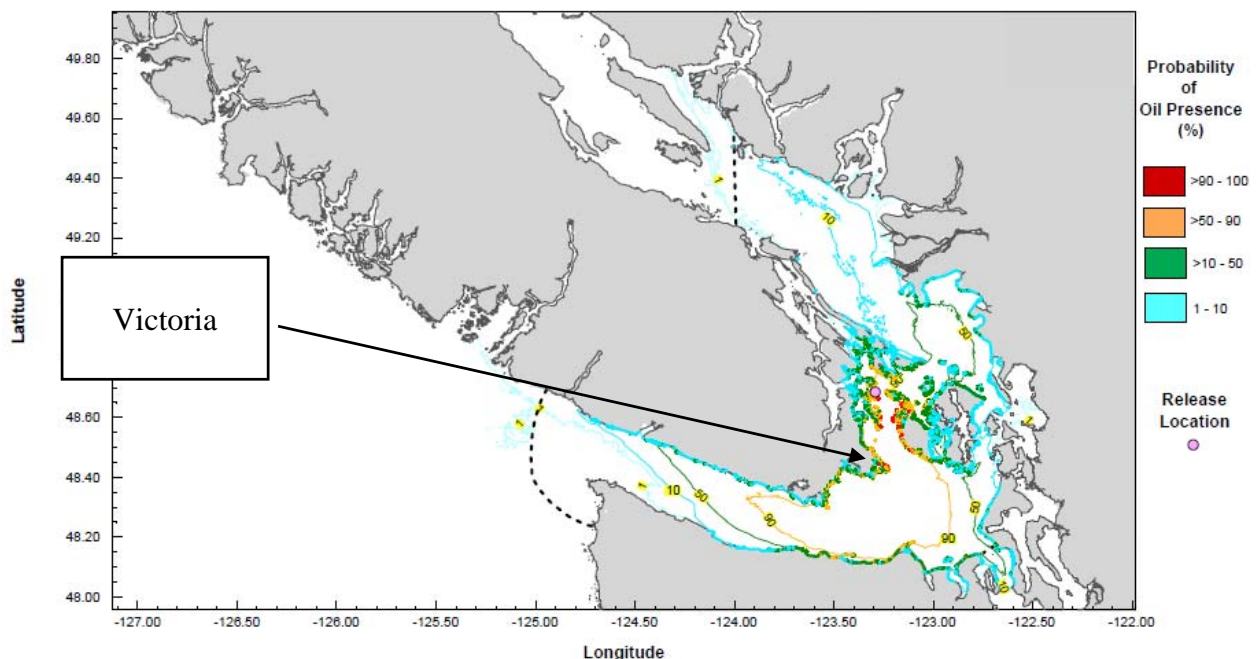
In its description of the losses associated with potential spill scenarios, the Impact Assessment seeks to address one of the fundamental challenges that Matsqui First Nation faces in participating in the NEB process and others like it. It is extremely difficult to describe the impacts on Matsqui First Nation values in a way that can inform a traditional cost-benefit or "public interest" analysis. For example, how do we explain the extent of the loss to our community of having our fishery shut down for a year? Or explain why buying replacement food at the grocery store could never be sufficient to address that loss?²⁹

Potential marine oil spill effects - Victoria

38. Because of its extensive marine shoreline, sensitive marine ecosystems and marine-based economy, Victoria is particularly at risk of significant impacts from a marine oil spill.

²⁹ Exhibit C227-7-1 – Matsqui First Nation Letter to NEB re Written Evidence ([A4L8I8](#)) at pages 3 and 4.

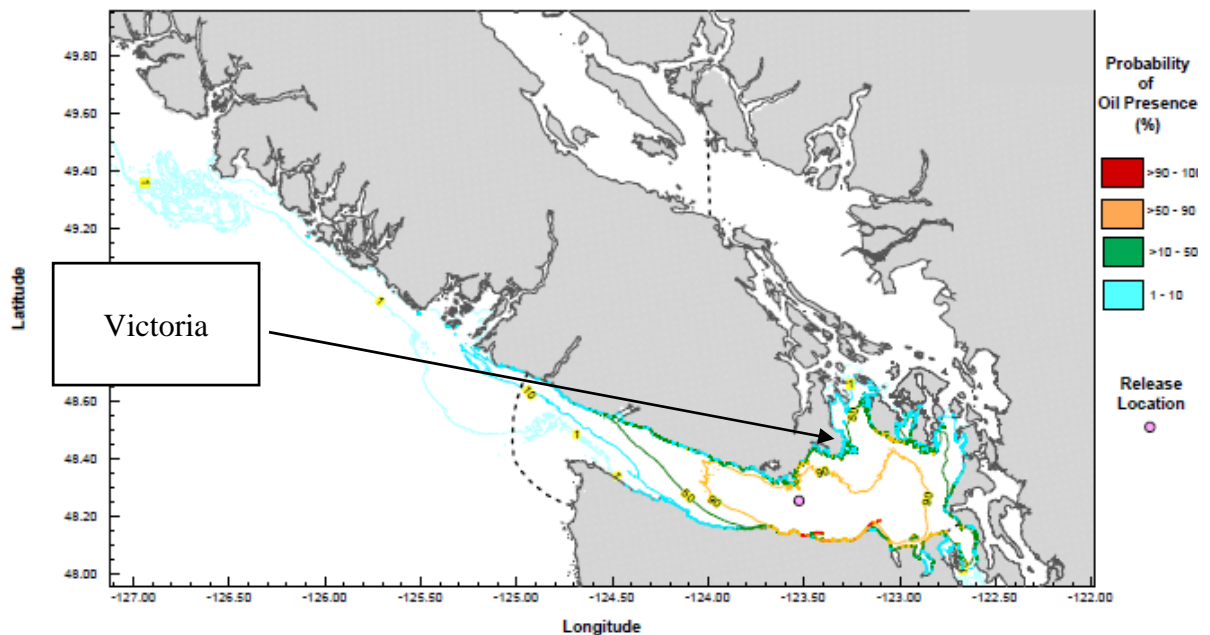
39. Although any spill in the waters off Victoria could have disastrous impacts, these impacts will be greatest if oil reaches Victoria shorelines. Victoria has a total shoreline length of 24.2 km, which includes natural areas and parks, homes, regional transportation facilities, businesses and industry.
40. It is evident from Trans Mountain's oil spill studies that Victoria shorelines will likely be oiled if a spill were to occur at any of the three locations selected by Trans Mountain for oil spill modelling: Arachne Reef, Race Rocks or the Strait of Georgia.
41. A map included with Trans Mountain's evidence and reproduced below shows a 90% probability that Victoria's shorelines will be oiled if a spill occurred at Arachne Reef.³⁰ Trans Mountain indicates that a spill at this location would quickly reach shorelines and would result in about 309 km of shoreline affected.³¹



³⁰ Exhibit B18-36 - V8A 5.6.2.4.1 F5.6.2.9 to F5.7.3.3 MAR TRANS ASSESS ([A3S4Y9](#)) at page 1 (Victoria locational marking added for emphasis).

³¹ Exhibit B315-14 – Trans Mountain Response to City of Victoria IR No. 2 ([A4H8L0](#)) at page 15.

42. Trans Mountain's evidence also shows a 50% probability that Victoria's shorelines will be oiled if a spill occurred at Race Rocks. As can be seen from the map reproduced below, in this scenario, there is also a 90% probability that the waters off Victoria will be oiled.³²



43. A possible accident location closer to Victoria was also identified by Trans Mountain: Location "F" - Brotnie Pilot Boarding Area. However, Trans Mountain states that this location was not selected for spill modeling because a possible collision with another vessel is a low probability event. A request from Victoria for spill modelling at that location was denied by Trans Mountain.³³
44. Although Trans Mountain provides no evidence specific to the impacts of an oil spill on Victoria, the evidence presented by Victoria clearly demonstrates that any marine oil spill

³² Exhibit B18-35 – V8A 5.6.2.3.1 to T5.6.2.23 MAR TRANS ASSESS ([A3S4Y8](#)) at page 2 (Victoria locational marking added for emphasis).

³³ Exhibit B315-14– Trans Mountain Response to City of Victoria IR No. 2 ([A4H8L0](#)) at page 15.

would have a significant impact on the economic, social and environmental well-being of the community.

45. Victoria is located in one of the most biologically rich and diverse bioregions in North America.

46. As described in this excerpt from Victoria's Official Community Plan,³⁴ the natural environment has a significant impact on Victoria's economy and well-being:

*Human well-being and nearly all economic activity depend on a healthy natural environment, both locally and globally. Even in a modified urban environment such as Victoria's, the natural environment provides essential ecosystem services, the fundamental life supports upon which human settlements and a wide variety of plants and animals depend. These services include clean air and water, waste decomposition, nutrient cycling and carbon sequestration. Victoria's spectacular setting and unique ecosystems are part of the community's identity, and support sectors such as recreation and tourism.*³⁵

47. Victoria encompasses several sensitive shoreline ecosystems that may be particularly affected by an oil spill occurring off its coastline. This includes two sensitive "Coastal Bluff" ecosystems, which are considered ecologically important because they support a large number of plant and animal species that have adapted specifically to this harsh environment. Coastal Bluff ecosystems are rare and contain highly specialized habitats for many species unique to these areas.³⁶

³⁴ An Official Community Plan is one of the most important guiding documents for a community. It is a 30-year plan that provides direction for growth and change. Victoria's new Official Community Plan was adopted by Council in 2012 after two and a half years of public consultation with more than 6,000 people.

³⁵ Exhibit C84-2-2 – City of Victoria Evidence Submission ([A4L8Y1](#)) at page 9, paragraph 23.

³⁶ Ibid. at page 9, paragraph 25.

48. Victoria's Outer Harbour has also been assigned a high to very high harbor ecological rating. A "Very High" rating is attached to the most ecologically valuable shore units in the harbour, with very little human alteration and high diversity and importance to species.³⁷
49. Victoria's shorelines support several protected plant and wildlife species that may be impacted by an oil spill. The entire Victoria shoreline is included within the Victoria Harbour Migratory Bird Sanctuary, which was established in 1923.³⁸ Two plant species protected under the Federal *Species at Risk Act* can be found along the shoreline of Beacon Hill Park.³⁹
50. The waters off of Victoria are included in the Federal Government-designated southern resident killer whales' critical habitat.⁴⁰ This means that the waters off of Victoria have been recognized as being necessary for the survival of this species.
51. There will also be significant social impacts to Victoria from a marine oil spill.
52. Victoria's shoreline parks and other public spaces, in particular, are major contributors to the community's well-being that are at significant risk. Victoria's Official Community Plan describes the important role that parks play in the community:

Parks, open spaces and recreational facilities serve many different uses in an urban environment. They help to improve the livability of densely developed areas, enable active lifestyles and personal health, provide spaces for respite and contemplation, highlight historic and cultural landscapes, and provide indoor and outdoor gathering

³⁷ Ibid. at page 10, paragraph 26

³⁸ Ibid. at page 10, paragraph 28

³⁹ Ibid. at page 10, paragraph 27

⁴⁰ Ibid. at page 10, paragraph 29

places. Many parks and open spaces also play an important role in providing animal and plant habitat and maintaining ecosystem services.⁴¹

53. As shown in the map below, City-owned parks comprise close to half of Victoria's total shoreline.⁴²



⁴¹ Ibid. at page 13, paragraph 31. Quote is from Victoria's Official Community Plan.

⁴² Ibid. at page 13, paragraph 33

54. Oiling of park shorelines would not only cause harm to the natural environment and any shoreline archaeological features in these parks, but also significantly impact recreational use.
55. The park that will be most significantly impacted by an oil spill is Beacon Hill Park, which is considered the crowning jewel in Victoria's park system. Beacon Hill Park and its adjoining parks and beaches include approximately 5 km of shoreline and are popular destinations for both residents and visitors for their natural environment, manicured gardens, recreational opportunities and archaeological and heritage features.⁴³
56. Victoria will also experience significant negative economic impacts from a marine oil spill.
57. As described in the excerpt from Victoria's Official Community Plan reproduced below, Victoria's economy is closely tied to its marine environment. Victoria's harbour is a prized asset and is a means to supporting green transportation, connectivity, vibrancy and investment downtown:

*Victoria's economy is largely based on government, tourism and commercial activities serving the local population. The Inner Harbour functions as an economic gateway with marine and air transportation that support the city's role as the provincial capital and tourist destination while the Outer and Upper Harbour continues to host waterfront industries.*⁴⁴

58. Victoria's tourism industry, in particular, will be decimated by a marine oil spill.
- Victoria's shoreline and marine environment are essential parts of its tourism appeal.

⁴³ Ibid. at page 13, paragraph 35

⁴⁴ Ibid. at page 15, paragraph 37.

59. Tourism is the second largest private sector employer in Greater Victoria. It is a \$1.9 billion dollar industry in Greater Victoria with more than 21,700 people directly employed in the tourism sector.⁴⁵
60. The experience in other communities that have experienced marine oil spills shows that all of these employees and businesses will be put at risk if the Project is approved. A study of the impact of the Deepwater Horizon oil spill in the Gulf of Mexico estimated a \$22.7 billion impact over a period of three years to US coastal economies. A review of disasters affecting tourism destinations conducted as part of that study revealed that the impact endures beyond the resolution of the crisis itself due to brand damage and ongoing traveler misperceptions.⁴⁶

Marine spill response capacity

61. The lack of sufficient, effective marine oil spill response capacity increases the possible consequences of a marine oil spill, both in Victoria and other coastal communities along the tanker route.
62. A variety of agencies are involved in responding to marine oil spills, including local government emergency responders. Victoria recognizes that Trans Mountain and Western Canada Marine Response Corporation (WCMRC) are not solely responsible for marine emergency response in BC coastal waters and that any gaps in current marine spill response capacity cannot be attributable to, or resolved by, those two entities alone. Nonetheless, these gaps are relevant to the Board review of the Project because they increase the potential negative effects of any marine oil spill from a Project-related tanker.

⁴⁵ Ibid. at page 15, paragraph 40.

⁴⁶ Ibid. at page 15, paragraph 41.

63. The only way to ensure an effective response to an oil spill is through comprehensive multi-agency planning and training, followed by testing and exercising to identify any gaps.
64. None of these activities have occurred in Victoria. There are no coordinated oil spill response plans in place for Victoria's harbour or offshore waters. Victoria's emergency responders have had no marine oil spill response training. Other than one marine oil spill table-top emergency exercise several years ago, Victoria staff have not participated in recent memory with WCMRC or the Province of British Columbia in any table-top or on-water emergency response exercises.⁴⁷
65. Other municipalities intervening in this hearing have also indicated that they have not been included as participants in marine oil spill response planning, training or exercises and that plans for responding to a marine oil spill near their communities are insufficient.
66. The City of Vancouver has only been invited to participate in exercises as an observer. Observations made by Vancouver staff during those exercises raised concerns that there is insufficient capacity to respond to the current risk.⁴⁸
67. The City of Port Moody's Fire Chief indicates that their Fire Department has been given no guidance or information from Trans Mountain about how to respond to an oil spill that enters Port Moody waters.⁴⁹
68. The North Shore Emergency Management Office, serving the District of North Vancouver, the City of North Vancouver and the District of West Vancouver, indicates

⁴⁷ Ibid. at page 17, paragraph 47.

⁴⁸ Exhibit C77-27-1 – Written Evidence of the City of Vancouver ([A4L7V8](#)) at page 54, lines 11 to 21.

⁴⁹ Exhibit C74-11-2 – Evidence of Remo Faedo Port Moody ([A4L7Q5](#)) at page 3, lines 6 to 8.

that no table top exercises have been done by WCMRC specifically with the North Shore municipalities.⁵⁰

69. The response to the April 8, 2015 Marathassa Oil Spill in Vancouver's English Bay shows how the lack of preparedness and coordination among all interested stakeholders reduces the effectiveness of marine oil spill response efforts. Evidence from the City of Vancouver and the North Shore Emergency Management Office show that the ability of local government emergency responders to launch an effective response to that incident was compromised by a lack of planning and coordination. Issues included:

- Delays in the notification process - Vancouver was not notified of the spill until more than 12 hours after it was reported.⁵¹ North Shore Emergency Management Office was notified 14 hours later.⁵²
- Delays in obtaining necessary information - The Canadian Coast Guard waited four hours before informing the North Shore Emergency Management Office that the spill had reached 500 m from the West Vancouver shoreline.⁵³
- Gaps in Incident Management Team and Incident Command System Implementation – There was a very uneven level of proficiency among federal agencies and other partners in the Incident Command Post.⁵⁴
- Gaps in Spill Science and Environmental Protection – Shoreline Cleanup and Assessment Technique teams did not fully survey all necessary shoreline areas,

⁵⁰ Exhibit C73-5-1 – Affidavit of Dorit Mason ([A4L6L4](#)) at page 4, paragraph 4.1.

⁵¹ Exhibit C77-27-1 – Written Evidence of the City of Vancouver ([A4L7V8](#)) at page 40, lines 3 to 5.

⁵² Exhibit C73-5-1 – Affidavit of Dorit Mason ([A4L6L4](#)) at page 5, paragraph 5.1.

⁵³ Ibid. at page 5, paragraph 5.2.

⁵⁴ Exhibit C77-27-1 – Written Evidence of the City of Vancouver ([A4L7V8](#)) at page 40, lines 10 to 20.

shoreline assessment maps were incomplete and inaccurate and insufficient environmental sampling and monitoring was conducted.⁵⁵

Project Benefits

70. Any benefits of the Project are vastly outweighed by the significant risks.
71. Trans Mountain cites a variety of general economic benefits to Canada, British Columbia and Alberta associated with the Project, including an increase in the GDP, an increase in taxes and an increase in job opportunities. Victoria is unable to comment on whether these anticipated benefits are realistic or achievable.
72. However, it is clear from Victoria's evidence that the environmental, economic and social values that are at risk from an accident or malfunction are of far greater significance and value to the community than any purely financial benefits that will be achieved from the Project.
73. This disparity between risk and benefit is particularly true for coastal communities, such as Victoria, that will bear all of the risk associated with a marine oil spill and receive no direct financial benefits from the Project.
74. Victoria asked Trans Mountain to provide information regarding the specific benefits that businesses and residents of Victoria and the Capital Regional District could expect from construction and operation of the Project. Trans Mountain was unable to identify a single, tangible financial benefit that would accrue specifically to Victoria or the region from the Project.⁵⁶

⁵⁵ Ibid. at page 41, lines 8 to 19 and page 42, lines 1 and 2.

⁵⁶ Exhibit B315-14 – Trans Mountain Response to City of Victoria IR No. 2 ([A4H8L0](#)) at pages 3 to 5.

Comments on Draft Conditions

75. Victoria has reviewed the draft conditions that directly relate to marine shipping and provides the following comments.
76. Victoria is in support of the following draft conditions:
- #77 – Plan for implementing, monitoring and complying with marine shipping-related commitments
 - #114 – Marine shipping-related commitments
 - #115 – Updated Tanker Acceptance Standard
 - #137 – Ongoing implementation of marine shipping-related commitments
77. With regard to draft condition #128 – Marine Mammal Protection Program, Victoria submits that item a) under the list of program requirements be revised as follows: “the goals and objectives of the program, determined in collaboration with appropriate government authorities, any potentially affected stakeholders and Aboriginal groups, including a discussion on how they align with the applicable Fisheries and Oceans Recovery Strategies and Action Plans.” Without input and review from other agencies and stakeholders, it is unclear how the Board will be able to determine whether the goals and objectives set out by Trans Mountain in its Marine Mammal Protection Program will be meaningful or effective.
78. Victoria submits that an additional condition or conditions must be added to address the current gaps with respect to marine oil spill preparedness outlined in this argument. Similar to conditions #119 and #120, this condition should require that Trans Mountain file the following documents with the Board prior to commencing operations:

- Copies of local marine oil spill emergency response plans for communities located along the tanker route, developed by WCMRC in collaboration with local government emergency responders and other agencies, and
- A description, and schedule of, emergency response exercises that WCMRC has conducted with local government emergency responders and other agencies and WCMRC's plans for future exercises to test a variety of scenarios during the Project's operational life.

Conclusion

79. In making its recommendation, the Board must consider "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." The potential effects to communities located along the marine oil tanker route are numerous and significant.
80. If the Project is approved, the volume of product and number of tankers off the shores of Victoria will dramatically increase.
81. Victoria's environment, economy and social well-being will be placed at great risk. The probability of a marine oil spill will increase significantly and the consequences could be catastrophic.
82. Because of its extensive marine shoreline, sensitive marine ecosystems and marine-based economy, Victoria is particularly at risk of significant impacts from a marine oil spill. There is a high probability that a marine oil spill from a Project-related tanker will reach Victoria's shorelines.

83. The lack of sufficient, effective marine oil spill response capacity increases the possible consequences of a marine oil spill, both in Victoria and other coastal communities along the tanker route. If the Project is approved, conditions must be put in place to ensure that Trans Mountain and WCMRC address these gaps in marine oil spill preparedness.
84. The Project is not in the public interest because the risk to communities located along the tanker shipping route far outweigh any potential benefits. Victoria itself will receive no direct benefits, while incurring significant risk.
85. For these reasons, Victoria submits that the Board must recommend that Trans Mountain's application be dismissed.