

NATIONAL ENERGY BOARD

Trans Mountain Pipeline Expansion Project Reconsideration hearing

**WRITTEN EVIDENCE OF LYACKSON FIRST NATION
DECEMBER 5, 2018**

To: The Secretary
National Energy Board
Suite 201, 517 – 10th Avenue S.W.
Calgary, AB, T2R 0A8

A.	INTRODUCTION.....	- 2 -
B.	RECONSIDERATION – SUMMARY.....	- 2 -
C.	BACKGROUND.....	- 3 -
D.	TMX PROJECT.....	- 3 -
E.	ADVERSE IMPACTS FROM INCREASE OF PROJECT-RELATED MARINE SHIPPING	- 3 -
F.	CONSULTATION.....	- 10 -
G.	SUMMARY.....	- 15 -
H.	CONCLUSION.....	- 15 -

A. INTRODUCTION

The Lyackson Mustimuhw (or people) are a central Coast Salish Hul'q'umi'num community of 207 members, also known as the Lyackson First Nation ("**Lyackson**" or "**LFN**"). Le'eyqsun (or "**Valdes**") Island is a traditional and sacred land of the Lyackson Mustimuhw, located on the east coast Vancouver Island about 20 kilometers south of Nanaimo, British Columbia. In present day, Le'eyqsun Island and its surrounding waters is actively used by LFN's members for cultural, traditional and economic purposes. Lyackson asserts a strong prima facie claim to Aboriginal rights and title to Le'eyqsun Island, as well as other relevant traditional sites at Tl'uqtinus on the south bank of the Fraser River south of Vancouver, BC and in and around the waters of the Salish Sea.

B. RECONSIDERATION – SUMMARY

Lyackson's aboriginal rights and interests will be adversely impacted by a decision to recommend that the Governor in Council proceed with the Trans Mountain Project pursuant to National Energy Board's ("**NEB**") reconsideration of the Project.

Lyackson asks that the Board consider its evidence and recommend that the Governor in Council decline to approve the Trans Mountain Project given that the potential adverse impacts are not justified in the circumstances.

In the alternative, Lyackson asks that the Board recommend that the Governor in Council only consider and determine whether the Project should be approved **after** the Crown completes meaningful consultation with Lyackson and other prima facie Aboriginal rights and title holders impacted by increased marine shipping from the Project that Trans Mountain as pipeline proponent cannot control.

Trans Mountain has admitted that it has "limited direct control over the operating practices of the tankers or tugs calling at the [Westridge Marine Terminal], as Project-related marine vessels will be owned and operated by third-parties".¹

There have been no new measures proposed by Trans Mountain or Canada that are technically and economically feasible and that would mitigate significant adverse environmental effects of Project-related marine shipping. The only way for Trans Mountain to reduce the potential adverse impacts of the Project on marine shipping would be to reduce the flow of bitumen flowing through the pipeline such that less vessels would be required for marine shipping, which it has not offered to do. Given the deeply flawed nature of Crown consultation on the proposed Trans Mountain application to the NEB during and since the NEB first issued its Project report in 2016, Canada cannot adequately understand the nature of the Project's impacts on Lyackson's aboriginal rights and title from increased marine shipping, or a catastrophic spill. As a result, it is not possible to determine what new measures could mitigate potential impacts of Project-related marine shipping on Lyackson's Indigenous interests by February 22, 2019. There is simply insufficient time to rectify a flawed process.

¹ A95820-1, Opening Statement, Trans Mountain Pipeline ULC, 2018-10-31, p. 2.

35 C. BACKGROUND

36 Lyackson intervened in the 2014 National Energy Board OH-001-2014 Hearing regarding the Trans
37 Mountain Pipeline ULC ("**Trans Mountain**") application for approval to expand its existing oil pipeline
38 from Edmonton, Alberta to the lower mainland area of British Columbia ("**TMX Project**"). Lyackson
39 submitted written evidence, third-party technical reports and oral evidence to the NEB. In its final
40 written argument to the NEB, Lyackson asked the Board to recommend that the GIC **not** approve the
41 Project as it was likely to cause significant adverse effects to Lyackson's rights, title and aboriginal
42 interests that could not be justified in the circumstances.

43 On May 19, 2016, the NEB issued its Recommendation Report regarding the TMX Project ("**2016**
44 **Report**"). At the time of the 2016 Report, Lyackson had only first met with Canada's Major Projects
45 Management Office ("**MPMO**") less than one month earlier on April 20, 2016 regarding the TMX Project.
46 Lyackson agrees with the Federal Court of Appeal that Canada's consultation with First Nations "fell well
47 short of the mark set by the Supreme Court of Canada".²

48 As a result, on Sept 20, 2016, the federal Governor General in Council referred aspects of the 2016
49 Report for the TMX Project back to the board for reconsideration ("**Reconsideration**"); specifically,
50 regarding environmental effects of Project-related marine shipping. The Federal Court of Appeal also
51 directed Canada to "redo" its Phase 3 consultation with indigenous peoples. Lyackson's submissions will
52 focus on the Reconsideration hearing.

53 D. TMX PROJECT

54 Given the nature and location of the TMX Project and the potential impacts of the Project on Lyackson's
55 Aboriginal Interests, the federal Crown has concluded that the legal duty to consult Lyackson lies at the
56 middle to deeper end of the Haida consultation spectrum. Lyackson was placed on Schedule B of the
57 Section 11 order issued by the federal Environmental Assessment Office which affords them
58 opportunities to be consulted at a deeper level.

59 During the Reconsideration Hearing, Trans Mountain continues to bear the onus to establish that its
60 project is in the public interest and will not cause significant adverse environmental effects to Aboriginal
61 peoples. Trans Mountain however has admitted that it cannot control marine shipping traffic other than
62 to cause its material increase through constructing and operating the TMX Project. **Only the federal**
63 **government can mitigate, reduce or eliminate specific adverse impacts from increased Project-related**
64 **marine shipping in the Salish Sea, including those adverse impacts on aboriginal rights and title.**

65 E. ADVERSE IMPACTS FROM INCREASE OF PROJECT-RELATED MARINE SHIPPING

66 From a Right's holder's perspective, Lyackson maintains that today's vessel traffic is already infringing on
67 the Nations' rights and interests. Recent science further demonstrates that current vessel traffic is
68 causing numerous negative impact on the Salish Sea (Salish Sea conference, Seattle, April 2018, and
69 Killer Whale Symposium, Vancouver November 2017). In addition to safety and efficiency, there are
70 numerous other outstanding issues concerning tanker and large vessel traffic that remain unaddressed.

²*Tsleil-Waututh Nation et al v. Attorney General of Canada et al*, 2018 FCA 153, para. 6.

The most crucial issues raised by Lyackson with respect to the TMX Project proposed by Trans Mountain (the proponent) have not been addressed; including (in-part):

1. Loss of Access and Harvesting

To access to reserve land and ancestral villages at Le'eyqsun Island and T'liqutinus, Lyackson must cross shipping lanes to access Fraser River, given that harvesting and cultural sites are located across the Strait of Georgia on and around Le'eyqsun. Lyackson has expressed concern that increased tanker traffic would threaten marine safety, presenting increased risks of collisions between tankers and smaller traditional resource use vessels, as well as unsafe navigation due to wakes created by tankers. These risks threatens to disrupt harvest of marine resources and access to subsistence and cultural sites permanently, throughout the life of project operation. During the 2014 Hearing, Lyackson asked that the Board recommends conditions and propose reasonable mitigation options regarding increased marine traffic and marine safety. This concern has not yet been adequately addressed by the proponent or the Board.

Lyackson remains unsatisfied with the Boards' conclusion that effect of the TMEP related vessel wakes will not be detectable from existing wave conditions. Lyackson remains concerned that the cumulative impacts of increased marine vessels is highly likely to cause changes in wave patterns with a likelihood of increased erosion of shorelines, habitats and cultural sites.

2. Light and Underwater noise

In the 2016 Report, the NEB stated that underwater noise from marine shipping will create a long-term sensory disturbance for marine mammals, although the Report concludes that this effect is reversible. The NEB has not yet introduced adequate conditions that would effectively reduce underwater noise resulting from the increased tanker traffic and its associated impacts on juvenile salmonids and marine mammals, including the SARA listed Southern Resident Killer Whale (see below). Furthermore, the impacts on migratory birds, juvenile herring and salmon as a result of light pollution must be adequately assessed and addressed.

3. Southern Resident Killer Whale

The Southern Resident Killer Whale is a top predator and keystone species of significant cultural and ecological importance to Lyackson. Further impacts to this already endangered species could have detrimental and long-lasting effects to the marine ecosystem as well as to Lyackson's rights and interests.

In the 2016 Report, the NEB concluded that the SRKW population has "crossed a threshold where any additional adverse environmental effects would be considered significant", and the increase in marine vessel traffic associated with the TMX project is likely to result in "**significant**" adverse effects on aboriginal values associated with the SRKW. The NEB found that the magnitude of effect to the SRKW is high and concludes that the increase in marine vessel traffic associated with the TMEP is likely to result in significant adverse effects on the traditional Aboriginal use associated with the Southern resident killer whale

Subsequently in October, 2017, leading biologists testified at a Killer Whales symposium hosted by Department of Fisheries and Ocean ("DFO") in Vancouver that **significant gaps exist in the science that informs impacts on SRKW avoidance behaviour** as a result of underwater acoustics, pollution, seasonal feeding and foraging behaviour, as well as impacts to salmonid quality, quantity and functionality at different stages of their lifecycle. Although scientists are attesting to insufficiencies in their understanding about how acoustics from large vessels interfere with and impact SRKW ability to communicate and eco locate prey, engines and propellers from large vessels are known to create underwater noise that disturb the ability of the SRKW to forage and communicate.

In April 2018, research findings presented at the Salish Sea conference in Seattle, Washington, demonstrated that the negative effects from underwater noise is aggravated with the addition of marine vessels, since the negative effects are thus extended over a longer time period. Research findings further demonstrate that noise from large vessels today result **in a 75% reduction in the species ability to communicate, with consequential impacts to the species' foraging behaviour**. Science indicates that starvation due to lack of sufficient prey and high levels of accumulated toxins are contributing factors to the stressors experienced, resulting in high rates of miscarriages and mortality in calves.

Any activities and actions that add pressure to this already vulnerable species must thus be avoided and effectively mitigated. Given the obvious lack of understanding on how the SRKW is being impacted by current anthropogenic activities, the sensible and responsible thing to do is applying the precautionary principle and reducing current large vessel volumes until measures based on well informed science are in place to avoid further impacts to the species. Canada is a signatory of the international legally-binding Convention on Biological Diversity. As such, Canada is obligated to make responsible decisions to protect the endangered population of the SRKW to enable recovery.

Lyackson has raised concern that large vessel traffic must be reduced and every effort must be made to reduce the reliance on greenhouse gases in order to provide an opportunity for the SRKW to survive. Lyackson further maintains that thresholds for recovery must be implemented based on reliable science and informed by traditional indigenous knowledge.

Long term studies are necessary to understand the effects of large vessel noise on Cetacean populations. Trans Mountain's support of collaborative, regional approach to development of mitigation options to reduce risk to marine mammals (such as the Oceans Protection Plan, the proposed Action Plan for the SRKW prepared by DFO and the Pacific Salmon Foundation's Survival Project³) does not provide a concrete mitigation measure. Funding initiatives attempting to gather the necessary science to inform responsible management after the Project is approved in its entirety is not itself a mitigation measure.

The TMX Project continues to present an enormous threat to the SRKW population and to date, and no effective mitigation measures have been presented. It is futile to suggest that a project resulting in a

³ A95280-2 Direct Evidence, Trans Mountain, p. 22

seven time increase of large vessel traffic should be constructed, prior to having the scientifically proven results required for developing responsible mitigation measures.

4. Salmonids

All salmonid species are of importance to Lyackson, including Sockeye, Chinook, Coho and Chum, herring and eulachon. Chinook is further a significant food source for the endangered SRKW. Herring is a significant food source for Chinook. Both species are severely declining in numbers under current conditions.

The state of migrating salmonid species is already threatened and continues to decline in population as reported subsequently to the 2016 Report. In April 2018, research presented at the Salish Sea conference in Seattle reported that salmon populations currently are under severe threat and unless current levels of development are scaled back significantly, the chances of population recovery for salmon populations is extremely slim.

Research presented at the Wild Salmon Summit in Richmond, BC in September 2018 further highlighted the enormous threat that global warming presents to the survival of numerous populations of salmon along their migration routes. From an Aboriginal right holder's perspective, Lyackson maintains that serious harm to salmonids has already occurred and will continue occurring and magnify in severity should the TMX Project be allowed to proceed.

The definition of serious harm contained in the 2016 Report does not account for impacts to First Nations rights and interests. Lyackson is already suffering cultural impacts from scarcity in Sockeye salmon stocks. Lyackson questions who determines what constitutes "least risk" periods and how these periods are identified. Numerous salmonid species rear and spawn during different times. Therefore, what could be considered lower risk to Coho, Chinook and Sockeye could be high risk time for Trout or any other fish species, at different stages of their lifecycles. Lyackson is not confident that the site-specific mitigations proposed by Trans Mountain to avoid potential serious harm will be adequate to maintain and restore already critically declining salmonid populations. There have been no mitigation or conditional measures implemented to adequately demonstrate that serious harm to fish and fish habitat associated with the TMX Project can be avoided.

Existing obstacles along the salmonid migration route, such as noise, vibration, light and petroleum smell deter several salmonid species. These adverse impacts will be intensified as a result of construction and operation activities associated with the TMX Project, notwithstanding the risk for devastating marine oil spills. Research on threats to the salmon population is lacking. It will take years of research to identify viable and scientifically sound mitigation measures in response to new and dramatic increases in Project-related marine traffic on an already diminished salmonid population..

5. Socio-economic impacts of Project-related marine traffic

The cultural and socioeconomic wellbeing of Lyackson depends on sustained and viable marine resources. Sensory disturbances from Project-related marine traffic have the potential to cause long

lasting, severe impacts to Lyackson's traditional marine resources, traditional livelihood and wellbeing associated with cultural and socio economic interests; particularly adverse impacts associated with

- increased marine shipping; including noise, light, vibration,
- changes to water quality associated with discharge, pollution and spills,
- increased water temperatures as a result of increased greenhouse gas emission,
- erosion and changes to the sediment as a result of vessel wakes

Lyackson socio-economic goals are related to sustained cultural practises, including investments in rebuilding its ancestral villages to carry on traditional uses of the island for shellfish harvesting, fishing and aquaculture.

Lyackson's goals and visions for the future include community and economic development opportunities on Valdes Island, including resettling Lyackson First Nation families to engage with confidence in island-based subsistence harvesting and businesses. These goals are directly threatened by the potential impacts caused by the Project-related marine traffic on marine resources and valued components, which will impact the viability of salmon, prawn, crab, herring and rock fish licenses on and around Le'eyqsun or Valdes Island and the Salish Sea, as well as tourism opportunities and commercial fisheries. Loss of economic opportunities from traditional harvesting and tourism is intrinsically linked to Lyackson's existing cultural identity, which cannot be compensated by economic opportunities within the TMX Project itself

6. Marine Oil Spills

Existing marine oil spill response plans will not adequately protect First Nations resources in the case of a major or even medium-impact oil spill or leakage from marine vessels departing from the Westridge Terminal.

Lyackson has attended several engagements sessions, conferences, meetings and presentations on spill response to any accident arising from Project-related marine traffic. The response time is highly insufficient. At a Western Canada Marine Response Cooperation ("WCMRC") simulated emergency oil spill on November 7 and 8 2018 in Saanich BC., it took a minimum of four days to clean up 2% of a simulated 10,000-liter spill during the best possible weather with minimal tides. WCMRC is insufficiently equipped and incapable of working in heavy tides and stormy weather. Response efforts in unfavorable weather at difficult access locations is severely lacking. Weather, tides, and difficult access all interact in an unpredictable manner that contribute to high uncertainty and great risk in case of a spill in Lyackson's territory. Furthermore, as testified by scientists presenting at the Salish Sea conference in Seattle as well as at Ocean Protection Plan forums have testified that diluted bitumen product cannot be cleaned up adequately in less than ideal circumstances.

Since the 2016 Report, incidences have demonstrated how ineffective the response efforts are when a spill occurs at inconvenient times (such as during weekend nights, in the case of Calgary HMCS). Lyackson is yet to receive information that assures that response personal and equipment would be effectively and readily available to clean up unexpected occurrences. Lyackson is not satisfied with the

218 proposed recovery strategy and the event of devastating marine oil spills remain a great concern to
 219 Lyackson. Furthermore, the fact that tankers are not always inspected until days after they arrive in the
 220 Salish Sea is an unsettling fact for Lyackson.

221 Although operating and tanker standards are said to have improved over the years, it is far from
 222 sufficient to guarantee that no marine oil spill will occur in the Salish Sea as a consequence of the TMX
 223 Project. Double-hulled tanker designs do not address human error.

224 Furthermore, the risk of spills occurring from the increased tug boats is a great concern to Lyackson.
 225 Even a low probability of an event is a concern and that any incremental risk may have implications for
 226 those exercising Aboriginal rights on the lands and waters and may erode the ability of Aboriginal groups
 227 to preserve these rights for future generations.

228 Significant adverse environmental effects to the use of lands, waters and resources for traditional
 229 purposes will arise from a Project-related marine oil spill. The Crown has provided no meaningful
 230 measures to mitigate the potential adverse impacts outlined above. Furthermore, there is no system in
 231 place with the ability to provide First Nations with timely and fair compensation for impacts to cultural,
 232 environmental and economic values because of impacts resulting from a marine oil spill.

233 **7. Aboriginal Rights and Title.**

234 Lyackson provided extensive evidence of its right and interests to Trans Mountain and the Board during
 235 the Hearing process far beyond what was outlined by the NEB in the 2016 Report. Lyackson's Rights and
 236 title set out in the 2016 Report did not adequately reflect the rights and title evidence provided by
 237 Lyackson in its Land Use Occupancy Marine Study and the oral hearings. Trans Mountain acknowledged
 238 that new significant potential areas of prima facie title claim at Le'eyqsun and its surrounding waters
 239 were presented in the oral hearings, however no indication on how these concerns could be addressed
 240 or mitigated were presented. Lyackson has not received an adequate response from the Crown or the
 241 proponent to clear stated prima facie claims required for adequate consultation. The Crown needs to
 242 identify, consider and address the potential adverse impacts of the proposed projects on Aboriginal
 243 rights. This cannot be done based on a flawed assessment of Lyackson's rights, title and interests.

244 In the 2016 Report, that the Board concluded that Aboriginal marine vessel users will maintain the
 245 ability to continue to harvest marine resources and to access subsistence and cultural sites in the
 246 presence of these periodic and short-term disruptions. Lyackson does not share this perspective.
 247 Lyackson is not confident that the potential adverse effects of increased Project-related marine traffic
 248 that threaten the marine sediment, water quality, marine fish, fish habitat, marine mammals, marine
 249 birds, humpback whales, transitory killer whales, and other baleen whales have been adequately
 250 assessed and understood by the Crown and the Board.

251 Because of the potential negative impacts on the marine resources of Project-related marine traffic
 252 Lyackson's ability to practise their Aboriginal rights and interests is threatened by the TMX Project.

8. Impact of Diminished Anchorages

Lyackson remains deeply concerned that it was never consulted on the locations of anchorages around the Southern Gulf Islands and specifically Valdes Island. Lyackson is concerned that the TMX Project will indirectly increase the number of anchorages within Lyackson's immediate territory, given that the Project-related tankers may be taking up space at the port designated anchorages, which would increase the anchorages for other vessels around the Gulf Islands. Lyackson is concerned that there is no plan in place for how to manage marine vessel anchorages. First Nations have not been meaningfully included in any discussions on effective management and oversight of these anchorages.

9. Cumulative Effects

The cumulative impacts associated with marine shipping lane utilization associated with TMX Project and additional projects have not been adequately understood, assessed or addressed in a meaningful way that assures Lyackson that First Nation's rights and interests will be preserved for future generations. Lyackson remains concerned with the cumulative effects of all projects in the traditional territory and the lack of long term, comprehensive studies to understand and assess associated potential impacts on marine resources.

The Proponent and NEB have expressed a lack of understanding about the full spectrum of effects on Lyackson from the multiple existing and proposed marine shipping projects. The difference between current baselines relative to pre-contact ecological state have not been adequately addressed and it is unclear what the effects will be on Lyackson soon and future generations to come.

Lyackson has requested that the precautionary principle should be applied and that the project is not approved until there is a more comprehensive understanding on the effects on future generations, based on effective monitoring, western science and traditional knowledge. Lyackson has further expressed that impact assessment must build on baseline conditions that existed prior to the current freighter traffic volume, given the great concern about the level of impacts already felt because of the existing marine shipping traffic in the Strait of Georgia to date.

10. Cumulative impacts

The TMX Project would generate a substantial increase in CO² during construction and operations of the pipeline, as well as 2.1% increase in estimated marine provincial emissions. In addition, the TMX Project in effect supports the increased expansion of the oil sands in Alberta. Climate change threatens the security and way of life of Indigenous people of Canada, including forest fires, droughts, floods and elevated water temperatures impacting wild salmon and other fish. This remains an outstanding concern that has not yet been unaddressed.

286 F. CONSULTATION

287 11. Background

288 Further to Hearing Order MH-052-2018, NEB is entitled to consider changes to its 2016 Report regarding
289 the potential impacts of Project-related marine shipping on Indigenous interests.

290 The Government of Canada relied on an NEB process to assess the TMX Project that was deeply flawed
291 and skewed towards an approval of the Project. First Nations rights and the environment were
292 neglected in the name of the “Public and Nation interest”. Several of the conditions for issuance of
293 further permits under the project have been subjected to court challenges. Guiding principles of United
294 Nations Declaration of Rights of Indigenous peoples were further not meaningfully incorporated in the
295 decision and concerns raised by many First Nations including have not been adequately addressed.

296 As a result, the potential adverse impacts of Project-related marine shipping were not fully canvassed in
297 the OH-001-2014 Certificate Hearing.

298 Lyackson was an active intervener in the OH-001-2014 Certificate Hearing regarding the TMX Project
299 since April 2014. During that time, Canada’s MPMO held one joint meeting with Lyackson and Cowichan
300 First Nation on April 20, 2016. On May 19, 2016, the National Energy Board issued the TMX Report
301 recommending that the Governor in Council approve the TMX Project subject to 157 conditions.

302 12. National Energy Board

303 Lyackson reiterates concerns regarding the efficacy of the NEB process methodology that led to the
304 2016 Report; particularly its ability to define a meaningful scope; communicate clearly, fairly, and
305 accessibly, in a government-to-government basis; and ensure enforcement and compliance with
306 Project’s terms and conditions. The review process has indicated poorly understood baseline conditions,
307 lack of knowledge of cause and effect relationships, lack of scientific certainty in the review of Project
308 specific data, high degree of subjectivity applied. As a result, the NEB conditions contained in the 2016
309 Report have not adequately reduced or avoided the directly or indirect concerns raised by Lyackson
310 regarding potential impacts on other traditional and cultural practices.

311 The NEB conditions in the 2016 Report further fail in addressing effects on Aboriginal communities and
312 **specific** effects on Aboriginal interests, including Lyackson’s. The adverse effects of the Project on
313 Lyackson Aboriginal interests and rights is high. Adequate measures to avoid, mitigate or otherwise
314 appropriately address or accommodate such effects have not been presented by Trans Mountain or the
315 Board. Trans Mountain has made broad general statements about the consultation process. However,
316 no discussion occurred with Lyackson to identify mitigation measures and the proponent has not
317 identified any mitigation measure. One of the greatest fears is the increased tanker traffic and an
318 accident occurring.

319 13. Submissions

320 On May 19, 2016, the National Energy Board issued the TMX Report subject to 157 conditions, none of
321 which were specific or responsive to the concerns raised by Lyackson to the Crown or to the NEB in its

322 2016 Hearing submissions regarding the potential impacts of Project-related marine shipping on
 323 Lyackson's aboriginal rights, title and interest in the Salish Sea.

324 Notwithstanding, Lyackson engaged with the Crown and Trans Mountain to seek mitigation of the
 325 potential adverse impacts of the TMX Project on Lyackson's rights and title if the Project were to be
 326 approved by the GIC; specifically:

- 327 • On Sept 13, 2016, Natural Resources Canada and MPMO held their first and only meeting with
 328 Lyackson's newly hired Lands and Resources Coordinator to discuss process.
- 329 • On October 3, 2016, Lyackson First Nation wrote a response to Joint Federal/Provincial Panel
 330 Draft Consultation and Accommodation Report for Trans Mountain Expansion Project, August 17
 331 2016. Lyackson First Nation's newly hired Land Use Coordinator reviewed the Joint
 332 Federal/Provincial Draft Consultation and Accommodation Report of August 17 2016, with the
 333 purpose to assess gaps and outstanding concerns.
 334
- 335 • October 5, 2016, Lyackson First Nation responded to Joint Federal/Provincial Panel Draft
 336 Consultation and Accommodation Report for Trans Mountain Expansion Project, August 17 2016
 337 ("**Draft Report**") regarding its strength of claim in the Project Right of Way.
 338
- 339 • On March 15, 2017, Lyackson made a submission "LFN concerns with large vessel anchorages
 340 and traffic" to Transport Canada where Lyackson highlighted concerns and impacts associated
 341 with these Project-related anchorages in and around Valdes Island where Lyackson holds a
 342 prima-facie aboriginal rights and title interest, including highly inadequate oversight, light and
 343 noise pollution, water pollution, invasive species, illegal fishing and damage to the marine
 344 ecosystem.
- 345 • On May 11, 2017, Lyackson submitted a response to Trans Mountain's "Issues Summary
 346 Resolutions Table", stating that none of Lyackson's concerns have been resolved in the issues
 347 summary table. All the issues raised in the table remained outstanding and unaddressed to date.
 348 The letter further stated that Trans Mountain had to date not reached out to Lyackson regarding
 349 how they are to address Lyackson's numerous and vast concerns. It was pointed out that Trans
 350 Mountain has not demonstrated how the NEB conditions will address Lyackson's concerns.
 351 Furthermore, it was stated that Trans Mountain has not committed any funds to Lyackson to
 352 ensure that the Nation can be meaningfully engaged in working with the proponent to address
 353 the serious outstanding concerns that the project will be causing to Lyackson's rights and
 354 interests. Neither have funds been made available to ensure that Lyackson is meaningfully
 355 engaged in the development on all the programs, mitigation measures, practices and policies
 356 that were suggested as measures to address Lyackson's concerns. Lyackson pointed out that
 357 given that programs such as ECHO and initiatives under the Oceans Protection Plan are yet in
 358 the early development stages without meaningful involvement of First Nation, it cannot be
 359 assumed that these programs and plans will ensure that Lyackson's concerns are adequately
 360 addressed. In other words, the programs that Trans Mountain is referring to as suggested

- 361 mitigations only exist in theory without any certainty regarding if and how effectively Lyackson's
362 concerns will be addressed.
- 363 • On June 20, 2017, Lyackson submitted a letter in response to Trans Mountains Working Group
364 TOR, outlining numerous gaps.
 - 365 • On June 26, 2017 Lyackson emailed Trans Mountain to advise that significant time and resources
366 would be necessary in order to review the project's Environmental Plans for Implementing,
367 Monitoring and Complying with Marine Shipping related Commitments.
 - 368 • On July 4, 2017, Trans Mountain responded that \$7,000 had been made available for Lyackson
369 to review the Project-related permits subject to authorization by the British Columbia Oil and
370 Gas Commission, Forest Lands and Natural Resources and Ministry of Transportation and
371 Infrastructure ("MOTI"), as well as to review the NEB and British Columbia Environmental
372 Assessment ("BCEA") environmental plans.
 - 373 • On July 6, 2017 Lyackson emailed Trans Mountain to again state **that the \$7,000 provided by**
374 **Trans Mountain is not sufficient to review the extensive volumes of material, once again**
375 **reiterating the numerous outstanding concerns with the TMX Project that Trans Mountain has**
376 **yet to address.**
 - 377 • On July 20, 2017 Lyackson submitted an objection to DFO's Application for a s. 35(2)(b) Fisheries
378 Act Authorization for the Westridge Marine Terminal Expansion, Burrard, due to the failure in
379 DFO to provide the necessary capacity funding required for Lyackson to review this application
380 and to provide meaningful feedback. Lyackson further indicated that the Nation's concerns with
381 respect to the TMX project remain unresolved and outstanding. On the same date, Trans
382 Mountain confirmed that the grant of \$7,000 is intended to cover **all** consultation with Trans
383 Mountain, including all regulatory permits, NEB Conditions and BC EAO Conditions.
 - 384 • On August 8, 2017, Lyackson met with Trans Mountain. Trans Mountain agreed that the funding
385 provided for Lyackson to review material was not sufficient and that Lyackson would be better
386 off using the funds towards working with WCMRC on spill response measures.
 - 387 • On November 27, 2017, Lyackson submitted a letter to the Ministers, asking that the Ministers
388 extend the time limit for issuing a decision statement to the proponent to allow adequate time
389 for the Crown to discharge its obligations to Lyackson before the Ministers or Governor in
390 Council determines whether the Project is necessary and in the public interest or is justified in
391 the circumstances. Lyackson stated that the significant adverse effects that the Project is likely
392 to cause are not justified in the circumstances. Lyackson further stated that the Nation had only
393 one meeting with MPMO and EAO since the NEB issued its TMX Report, and the fact that it
394 cannot be reasonable to expect that Lyackson could adequately discuss the TMX Report and its
395 157 conditions with the Crown in one meeting. The letter highlighted the fact that Lyackson's

interests had not been meaningfully considered in the Revised Consultation Report and that the MPMO and EAO has declined to consider the most crucial issues raised by Lyackson. Many items in Lyackson's earlier submission were not responded to in the Crown's Revised November 2016 Report or adequately outlined for the Minister or Governor-in-Council's review. It was further highlighted that Lyackson has not been provided with sufficient time or capacity to engage in the process. On this basis, Lyackson asked that the Crown acknowledge its lawful obligation to enter into a meaningful dialogue about the strength of its claim and potential adverse impacts that will arise from issuance of a CPCN and determination that the Project is justified in the circumstances.

- On January 16, Lyackson sent an email to Trans Mountain in response to the MOTI Wave 2 Permit Application letter of January 5, 2018. Lyackson reiterating concerns over the increased tanker traffic and its impacts to the Southern Resident Killer Whales and global warming, as well as all the other numerous outstanding concerns and gaps with the Project including the consultation process.
- Trans Mountain provided a written response on February 5, 2018, breaking out each concern raised in the January 16 email with responses.
- On April 26, 2018 Lyackson responded to the response letter provided by TMX on February 5, 2018, with a letter outlining the gaps in the consultation process and detailing outstanding concerns.
- On July 5, 2018 Lyackson responded to Trans Mountain reiterating concerns regarding not being adequately funded to review and respond to reports associated with the project, given the overwhelming amount of referrals associated with the project and given the insufficient capacity that did not allow for meaningful review of the project specifics. The letter further highlighted that the principles under UNDRIP had not been taken into consideration.
- On July 16, 2018 Lyackson responded to BCEAO in an email, reiterating concerns regarding not being adequately funded to review and respond to reports associated with the project, highlighting the fact that same concerns have been raised repeatedly while remaining unaddressed to date. Same letter of concern was sent on the same date in response to BCEAO Condition 35.
- On July 16, 2018 TMEP - Lyackson responded to Trans Mountain's June 18 2018 - Permit Consultation - BCOGC Roads Phase 2 - TMEP Response letter. Lyackson reiterated concerns regarding not being adequately funded to review and respond to reports associated with the project, highlighting the fact that same concerns that have been raised repeatedly remain unaddressed to date.

- On July 18, 2018 Lyackson submitted an email response to BCEAO Condition 35 - Fate & Behaviour of Bitumen Research, stating concern with the uncertainty about bitumen recovery and the need for further research to adapt adequate mitigation measures.

Consultation on Initiatives

Ocean Protection Plan

Lyackson has attended all Ocean Protection Plan (“OPP”) engagement sessions, including a joint all-stakeholder session on “Oceans Protection Plan Pacific South Coast Dialogue Forum” in Vancouver on March 20-21, 2018.

Lyackson provided feedback that the OPP engagement sessions was not organized in a manner that allowed First Nations to adequately prepare responses to important high level questions that were asked during the breakout sessions. Adequate response time was further not provided, nor were responses effectively recorded or shared with all stakeholders. Lyackson highlighted that it was inappropriate for Transport Canada to invite First Nations to attend what was being called an “initial information gathering meeting”, while requesting First Nations to provide high level responses that would have required enough resources, time and preparation for any meaningful input.

Despite the feedback, another joint stakeholder OPP session was held in Vancouver on October 22, 2018 following the same format. Lyackson also attended a First Nations only “OPP Initial Information Sharing and Engagement Session” in Nanaimo on November 1, 2017 and an “Oceans Protection Plan South Coast Dialogue” on March 20 and 21, 2018. Lyackson also attended meetings with the Federal Government and Facilitators as well as conference calls to ensure that the only OPP Indigenous session held in May 2018 would be successful.

Despite the efforts, it has been made clear by indigenous groups including Lyackson that **the OPP has failed in engaging meaningfully with First Nations on the many important initiatives**. Through emails, letters and meetings with Transport Canada, Lyackson has explained the importance of First Nation involvement in designing some of the key initiatives for mitigating potential adverse impacts of Project-related marine shipping on Lyackson’s aboriginal rights and title, including Anchorages Initiative, Marine Mammal Initiative, Proactive Vessel Management Initiative and the Cumulative Effects Initiative.

To date, no consultation with Lyackson has occurred on these important initiatives and based on talking to the initiative leads, there are no plans for adequate consultation to occur. Several of the initiatives under OPP are further not funding aboriginal consultation and the federal Government has made no resources available to engage with individual Nations directly.

The OPP exists only as a theoretical concept to date. There has been no indication that OPP will consult with First Nations in a meaningful manner, nor has there been any indications that OPP adequately will consider the Articles outlined in UNDRIP or the Principles of Reconsideration.

Indigenous Advisory Monitoring Committee

Since fall 2017 Lyackson has had a seat on the Marine Shipping sub group under the Indigenous Advisory Monitoring Committee (“IAMC”). This allows Lyackson to take part in discussions on how First Nations can be more actively engaged in managing marine shipping and spill response in the future. To date, no concrete plans exist that effectively include First Nations in indigenous lead monitoring and that adequately address the Nations concerns.

Based on information received to date, Lyackson has received no assurance of any emergency response measures that effectively would mitigate catastrophic effects to the marine ecosystem and First Nations’ rights and interests in the case of a marine oil spill

G. SUMMARY

Based on the outstanding concerns, the TMX Project is likely to cause significant adverse environmental effects on Lyackson’s Rights and interests, including disturbed marine and foreshore habitats, marine pollution, sensory disturbance (light, noise, and vibration), boat and canoe accidents, adverse impacts to transportation routes, salmon fishing, prawn fishing, and Lyackson’s traditional seal, whale and sea lion hunt. The adverse effects could potentially have catastrophic effects on cultural and socioeconomic wellbeing of Lyackson, in the case of a marine shipping accident.

The Crown has failed to demonstrate how Lyackson’s concerns will be meaningfully addressed. To date Trans Mountain has not engaged meaningfully with Lyackson to ensure that the issues and concerns raised by the First Nation will be adequately addressed. Trans Mountain has furthermore not committed to providing sufficient funding to Lyackson to ensure that Lyackson can be meaningfully engaged in development of initiatives and measures to mitigate Lyackson’s vast outstanding concerns.

H. CONCLUSION

Neither Trans Mountain nor Canada has presented meaningful measures to mitigate cultural, environmental and socio-economic concerns or infringement on Lyackson’s constitutionally-affirmed section 35 rights since the issuance of the 2016 Report. There has further been a lack of adequate consultation and response to Lyackson’s rights, title and interests evidence. Lyackson feels strongly that the impacts and potential adverse impacts are too great a risk for the TMX Project to be constructed as proposed.



Lyackson First Nation
7973A Chemainus Road
Chemainus BC V0R 1K5
Telephone: (250) 246-5019
Fax: (250) 246-5049

October 3, 2016

Re: Lyackson First Nation response to Joint Federal/Provincial Panel Draft Consultation and Accommodation Report for Trans Mountain Expansion Project, August 17 2016.

Background

Lyackson First Nation (Lyackson) is a Coast Salish community located on the east coast Vancouver Island about 20 kilometers (km) south of Nanaimo, British Columbia (BC). Lyackson asserts that it traditionally used the Gulf Islands and surrounding waters to conduct fishing and other activities.

Given the nature and location of the Trans Mountain Extension Project (TMEP), and the potential impacts of the Project on Lyackson's Aboriginal Interests, the federal Crown is of the initial view that the legal duty to consult Lyackson lies at the middle to deeper end of the Haida consultation spectrum. Lyackson was placed on Schedule B of the Section 11 order issued by the Environmental Assessment Office (EAO), which affords them opportunities to be consulted at a deeper level.

Trans Mountain bears the onus to establish that its project is in the public interest and will not cause significant adverse environmental effects to Aboriginal peoples. The Major Projects Management Office within Natural Resources Canada (MPMO) and the BC Environmental Assessment Office (EAO) have responsibilities for conducting Aboriginal consultation on TMX for the provincial and federal Crowns, including consulting on the potential impacts of the Project on asserted or established treaty or Aboriginal rights, including title (Aboriginal Interests). EAO and MPMO are coordinating by participating in joint consultation meetings, sharing information, and drafting the joint Report. The Joint Panel released their Draft Consultation and Accommodation Report on August 17, 2016. Lyackson's newly hired Land Use Coordinator Linda Aidnell has reviewed this report and is providing responses in this letter. However, given that Lyackson First Nation has been undergoing transition in the Land Use Coordinator position, Lyackson may have further comment to submit at a later date.

Traditional Use Study

Lyackson conducted a third-party traditional use study (TUS) titled "The Lyackson Use and Occupancy Mapping Study" (A4Q0I2). The study provides information regarding Lyackson's use and occupancy within their current asserted traditional territory including use and occupancy mapping, ethnographic and archaeological information, as well as other data. As described in Lyackson's TUS, community members fish and harvest a wide variety of marine resources including clams, chiton, mussels, oysters,

crabs, sea cucumber, sea urchin, octopus, pink, sockeye, coho and spring salmon, dogfish, flounder, ling cod, rock cod, sturgeon and herring. Two main regions are used for fishing and marine harvesting: Le'eyqsun (Valdes Island) and from the mouth of the Fraser River to Seabird Island. Salmon is the most important species fished by community members for subsistence and commercial purposes.

Lyackson identified a total of 11 fishing and marine harvesting areas in their TUS, nine of which are located within the Marine RSA. Community members would be required to cross shipping lanes to access six of the sites including those locations along the Fraser River, Canoe Pass, Roberts Bank, Point Roberts, Steveston, and outside the BC Ferries causeway.

Trails and travel ways identified by Lyackson in their TUS are between Le'eyqsun and various habitation and harvesting sites within their traditional territory. These trails and travel ways are important to the history and culture of Lyackson as they provide community members with access to important resources that are shared with other Hul'qumi'num Nations and the broader Coast Salish community. Areas around Roberts Bank and the mouth of the Fraser River were identified by Lyackson as culturally important meeting places where community members would meet other First Nations in the region. Sacred areas identified by Lyackson include ceremonial, religious, and burial sites.

Lyackson identified six trails/travel ways, two gathering places, and two sacred areas in the TUS. All sites except three trails/travel ways are located within the Marine RSA. The following areas require Lyackson community members to cross the marine shipping lanes to access the areas: three travel ways between Le'eyqsun (Valdes Island) and Vancouver, Lummi, and Fraser River; one gathering place at Roberts Bank. Shipping lanes are not crossed to access sacred areas.

Lyackson outstanding concern with TMEP

Land and Resource staff with Lyackson First Nation has reviewed the Joint Federal/Provincial Draft Consultation and Accommodation Report of August 17 2016, with the purpose to assess gaps and outstanding concerns. These concerns are summarized and presented in this report, broken up by subject area.

Greenhouse gas emissions

- The public interest of the TMEP remains unclear to Lyackson, in light of the Federal Government's commitment to transition from greenhouse gas emitting energy sources to more environmental sustainable solutions. The Project would generate 1,020,000 tonnes of CO_{2e} during construction and 407,000 tonnes per year of CO_{2e} during annual operations. Furthermore, the emissions from increased marine vessels is estimated to be 68,100 tonnes of CO_{2e} per year, resulting in a 2.1% increase in estimated marine provincial emissions. In addition, the TMEP supports the increased expansion of the oil sands. The goal of expanding the production of the already polluting and harmful oil sands is leading to many new projects aimed at expanding and transporting the oil, including expanding pipelines and increasing oil train and tanker traffic, which threaten many Indigenous nation's territories, scared waterways, shores and communities with a real risk of toxic and hazardous oil spill. Climate change threatens the

security and way of life of Indigenous people of Canada, including forest fires, droughts, floods and elevated water temperatures impacting wild salmon and other fish. The Union of BC Chiefs are rejecting the transportation of tar sands crude oil by pipeline and tanker on the north coast, south coast and the Fraser River watershed. The Indigenous Nations in Canada and beyond will suffer terrible harm as a result of the expanding oil sands and increased traffic, which will fuel catastrophic climate change that already has started to endanger Indigenous people's way of life. Lyackson is already experienced the negative impacts on climate change, for example with respect to changes in salmon migration. The exclusion of climate change from the NEB process, and the fact the Crown is not evaluating downstream greenhouse gas effects of the TMEP are major gaps of great concern to Lyackson First Nation.

Access

- Lyackson must cross shipping lanes to access Fraser River, given that the reserves are located across the Strait of Georgia on and around Le'eyqsun. Lyackson shares other Aboriginal groups expressed concern that increased tanker traffic would threaten marine safety, presenting increased risks of collisions and other interferences between tankers and smaller traditional resource use vessels (including canoes and subsistence fishing boats), which are utilized to exercise harvesting rights. The risk of collision poses a threat to Aboriginal access and therefor threatens to impact Lyackson's rights and interest. This concern has not yet been adequately addressed by the proponent or the Board.
- The NEB concludes that marine shipping from the TMEP would disrupt Aboriginal marine vessels and harvesters, and that this could disrupt activities or access to sites. The Board is of the view that these disruptions would be temporary, only occurring during the period of time when Project-related tanker vessels are in transit. Lyackson agrees that their Aboriginal rights and interests associated with marine vessels and harvesters will be disrupted by the marine shipping associated with the project. However, Lyackson's is concerned that these disruptions are likely to be permanent throughout the life of project operation. The NEB is of the view that Aboriginal marine vessel users would maintain the ability to continue to harvest marine resources and to access subsistence and cultural sites in the presence of these periodic and short-term disruptions. Lyackson asks that the Board recommends conditions and propose reasonable mitigation options regarding increased marine traffic and marine safety.

Marine resources

- Lyackson questions the Boards conclusion that effect of the TMEP related vessel wakes will not be detectable from existing wave conditions. Lyackson question the science behind the board's conclusion and remains concerned that the cumulative impacts of increased marine vessels is highly likely to cause changes in wave patterns with a likelihood of increased erosion of shorelines and could potentially result in disturbance of marine and foreshore habitat areas for octopus, sea lions, and a variety of other marine species, especially on the east side of Valdes

Island and in nearby passes. These impacts have not been adequately assessed or addressed by the Board.

- NEB states that underwater noise from marine shipping will create a long term sensory disturbance for marine mammals, however this effect is reversible. It is unclear to Lyackson how the impacts associated with the noise pollution will be mitigated and addressed. Furthermore, juvenile herring and salmon will also be disturbed by the underwater marine noise from marine shipping. The impacts on noise on fish must be assessed and addressed. Furthermore, the impacts on migratory birds, juvenile herring and salmon as a result of light pollution must be adequately assessed and addressed.
- The NEB further assesses that impact of marine shipping associated with the TMEP on fish and fish habitat will be low and reversible and that effects of project related marine vessels on humpback whales, transitory killer whales, and other baleen whales, would be inconsequential. The Board further concludes that the project is not likely to cause significant adverse environmental effects on marine sediment and water quality, marine fish and fish habitat, marine mammals, or marine birds. Lyackson questions the science used to inform these assessments. According to Lyackson traditional knowledge, the impacts to these marine resources as a result of the increased marine shipping is likely to cause significant impacts with consideration to sensory disturbances (noise, light, vibration), collisions, spills, pollution, changed water temperatures, vessel wakes, decreased water quality, erosion of shorelines, introduction of invasive species, changed migratory patterns for fish and birds etc. Lyackson remains unsatisfied by the marine discussion with respect to the project impacts and is not confident that the project effects that threaten the marine sediment, water quality, marine fish, fish habitat, marine mammals, marine birds, humpback whales, transitory killer whales, and other baleen whales have been adequately assessed and understood by the proponent and the Board. As a consequence of the potential negative impacts on the marine resources, Lyackson's ability to practise their Aboriginal rights and interests is threatened by the TMEP. To date the proponent and the Board have not undertaken any discussions with Lyackson regarding how these impacts are understood or how these impacts will be mitigated and addressed in a meaningful manner.
- The Board expressed its view that the Southern resident killer whale population has crossed a threshold where any additional adverse environmental effects would be considered significant, and the increase in marine vessel traffic associated with the Project is likely to result in significant adverse effects on the traditional Aboriginal use associated with the Southern resident killer whale. The NEB found that the magnitude of effect to the Southern resident killer whale is high. The Killer whale is a top predator and key stone species of high cultural and ecological importance to Lyackson. Further impacts to this already endangered species could have detrimental and long lasting effects to the marine ecosystem as well as to Lyackson's rights, interests and culture. The Board concludes that the increase in marine vessel traffic associated with the TMEP is likely to result in significant adverse effects on the traditional Aboriginal use associated with the Southern resident killer whale. The proponent and NEB has not yet engaged in discussions with Lyackson with respect to how further reduction of the

endangered Southern resident killer whale and the further threat that the TMEP poses on this species will be mitigated and addressed. The effects of the declining Southern resident killer whale on the marine ecosystem must be understood and addressed before the project is approved; building on knowledge from long term monitoring, western science and traditional knowledge.

- The NEB notes that the anticipated loss of marine fish and fish habitat will be offset through compensation or offset habitat, and that specific compensation measures will be determined in consultation with DFO and affected Aboriginal communities. It is unclear to Lyackson how compensation and offset habitats will sustain Lyackson's rights and interests within their traditional territory. To date no specific compensation measures have been discussed or agreed on between the Board, DFO and Lyackson.

Traditional Resources Use

- The Board is of the view that Aboriginal marine vessel users will maintain the ability to continue to harvest marine resources and to access subsistence and cultural sites in the presence of these periodic and short-term disruptions. Lyackson does not share this perspective. To Lyackson, the effects on the Traditional Marine Resource Use (TMRU) on Westridge Marine Terminal (WMT) are high and must be addressed prior to any project approvals. Lyackson asks that the Board acknowledges Lyackson's rights, title and interests in protecting its community and its resources far beyond the short-term cycle of the Project.
- The Board concludes that the Project's effects on TMRU for the WMT are low in magnitude. This conclusion is subjective and not based on any solid understanding of the traditional resource use or cultural needs of Lyackson. Lyackson argues that the magnitude of effects associated with the TMEP operation of increased marine vessels access is permanent and significant. The sensory disturbance associated with the increased marine shipping; including noise, light, vibration, changes to water quality associated with discharge, pollution and spills, increased water temperatures as a result of increased greenhouse gas emission, erosion and changes to the sediment as a result of vessel wakes have the potential to cause long lasting, severe impacts to Lyackson's traditional marine resources, traditional livelihood and wellbeing associated with cultural and socio economic interests and practises tied to traditional marine use resources. The proponent and the NEB have not engaged in any discussions with Lyackson on how these disruptions will be mitigated and accommodated.
- NEB also concluded that the TMEP would result in some disruption of traditional marine use that would persist for the operational life of the project, and that these effects would be reversible. This conclusion demonstrates that the Board fails to understand and consider the serious harm that the disruption of traditional marine uses presents to Lyackson's cultural identity by threatening to disrupt the transfer of intergenerational traditional knowledge, which is required to uphold the wellbeing of the First Nation in all aspects (physically, mentally, spiritually). This concern has not been addressed by the proponent or the Board.

- The Panel and proponent have assessed that while the expanded dock complex would become a permanent feature of the inlet, traditional resource use patterns will likely adapt over time. Expecting that Lyackson and other First Nations should adapt to declining quantity and quality of marine resources is not an acceptable mitigation measure. The cultural and socioeconomic wellbeing of Lyackson depends on sustained and viable marine resources. Accepting impacts to Lyackson's traditional resource use patterns is equivalent to accepting infringement to Lyackson's rights. Lyackson requests that the Panel addresses these concerns before the project is approved.
- The Board concludes that Aboriginal groups would likely be able to adapt to the expanded water lease boundary. This is an unacceptable mitigation measure. The Board's conclusion demonstrates the failure of the Board in understanding and assessing how Lyackson's rights and interests are directly linked to their historical territory, which in turn is intrinsically linked to the Lyackson identity and culture. There are further logistical and economic barriers associated with expanding the water lease boundary, which is an unrealistic ask for a People that already is strained for capacity, given the sustained decline in the quality and quantity of marine resources.
- NEB further notes that incremental increase in marine vessel traffic from the TMEP may displace members from one community practicing Aboriginal rights within their traditional territory into the territory of another community. Forcing Aboriginal people to abandon their traditional marine use areas to compete for already scarce and declining resources within overlapping territories is not an acceptable mitigation measure. The NEB and the proponent is yet to hold discussions with Lyackson on how these effects will be mitigated.

Incidences

- Lyackson is concerned about the Panel's finding that over the life of the Project, the probability of a small spill is high. Lyackson is not assured that response personnel and equipment would be effectively and readily available to clean up these expected occurrences. The frequency of these small spills and the potential damaging effects to Lyackson's TMRU is an outstanding concern that is yet to be addressed by the Board and the proponent. Lyackson shares other First Nation's concerns with respect to the adequacy of response plans for potential spills, the proponent's oil spill modeling, and insufficient knowledge and capacity to contain and clean up diluted bitumen in the marine environment.
- Lyackson is further not assured that adequate and appropriate measures have been taken to address the event of a major spill. Lyackson shares concerns expressed by other Aboriginal groups about the potential detrimental effects of a major spill on biophysical resources, rights and interests, including Aboriginal economic development interests and commercial harvesting rights. In the event of a spill from the pipeline or tankers, depending on the extent and location of the spill, response time and the effectiveness of response measures, there could be significant adverse environmental effects to the use of lands, waters and resources for traditional purposes. Lyackson share other First Nations' concerns that even a low probability of

an event is a concern and that any incremental risk may have implications for those exercising Aboriginal rights on the lands and waters, and may erode the ability of Aboriginal groups to preserve these rights for future generations. The Panel found that although impacts from a credible worst case spill would probably be adverse and significant, natural recovery of the impacted areas and species would likely return most biological conditions to a state generally similar to pre-spill conditions. However, certain values and uses could be lost or diminished in the interim. Relying on natural recovery as a strategy for species to return to healthy and viable biological conditions is not an acceptable mitigation measure to address the risk of a catastrophic spill. Furthermore, the NEB has concluded that an effective response does not guarantee recovery of all spilled oil, and that no such guarantee could be provided, particularly in the event of a large terrestrial, freshwater, or marine spill. The oil spill preparedness and response commitments made by the proponent cannot ensure recovery of the majority of oil from a large spill. Recovery of the majority of spilled oil may be possible under some conditions, but experience indicates that oil recovery may be very low due to factors such as weather conditions, difficult access, and sub-optimal response time, particularly for large marine spills. Lyackson is not satisfied with the proposed recovery strategy and the event of devastating spills remain a great concern to Lyackson.

Cumulative impacts

- The NEB acknowledges the concerns expressed by Aboriginal groups about the effects on harvesting and traditional user vessel movements in the vicinity of the WMT, but notes that the dock and associated vessel movement have been present for many years. The fact that the First Nation's rights and interests have been infringed on for years does not justify further infringement associated with increased vessel movement. Furthermore, NEB argues that Marine shipping lane utilization is expected to increase regardless of whether or not TMEP is approved. This is not a valid argument for why the TMEP should increase the vessel activity in the shipping lane. Rather, the expected increase of the marine shipping lane by other projects than TMEP is a concern with respect to cumulative impacts.
- The Board noted that project-related marine traffic's contribution to cumulative effects of on traditional marine use is of low to medium magnitude and reversible in the long-term. Lyackson questions the validity and legitimacy of this cumulative effects assessment. The cumulative impacts associated with marine shipping lane utilization associated with TMEP and additional projects have not been adequately understood, assessed or addressed in a meaningful way that assures Lyackson that the First Nation's rights and interests will be preserved for future generations.
- The cumulative impacts as a result of the TMEP and other projects on the marine sediment and plankton plume, water quality, fish and fish habitat, marine mammals and marine birds have not been adequately assessed or addressed and presents a serious threat to Lyackson's rights and interests. Cumulative effects of all aspects of the project could further diminish Aboriginal groups' ability to meaningfully exercise traditional and cultural practices within the project footprint and adjacent areas. Tanker traffic is already limiting Lyackson travel and marine

resources. Additional tanker traffic will further impact these resources and by extension section 35 rights. Cumulative impacts must be adequately addressed in order to prevent the natural resources upon which Lyackson depends for their continued practise of rights and interests from further deteriorating in quality and quantity.

- Lyackson remains concerned with the cumulative effects of all projects in the traditional territory and the lack of long term, comprehensive studies to understand and assess associated potential impacts on marine resources. The proponent and the Board have expressed a lack of understanding about the full spectrum of effects on Lyackson from the multiple projects being proposed. The difference between current baselines relative to pre-contact ecological state have not been adequately addressed and it is unclear what the effects will be on Lyackson in the near future and future generations to come. Lyackson requests that the precautionary principle is applied and that the project is not approved until there is a more comprehensive understanding on the effects of future generations, based on monitoring, western science and traditional knowledge.

Cultural Resources

- The Panel and proponents conclude that the Project's contribution to potential broader cultural impacts related to access and use of natural resources is not significant. It is unclear how this conclusion was reached, given that no discussion with respect to how First Nations culture is linked to the natural resources, and given the lack in reliable scientific predictions with respect to how the natural resources will be directly and indirectly impacted by the TMEP. The panel further fails to assess how these resources are intrinsically linked to the cultural, socio economic and spiritual wellbeing of the First Nation. The Project's contribution to broader cultural potential impacts related to access and use of natural resources is potentially devastating to Lyackson and these impacts have not been adequately addressed by the Board.
- The Panel and proponents conclude that "despite some interruptions to Aboriginal cultural and spiritual practices as a result of construction and operations of the Project, this would not result in significant adverse effects on the ability of Aboriginal groups to use land, waters or resources for traditional purposes". It is unclear how the Panel reached this conclusion. The increased marine shipping and spills associated with the TMEP presents potential adverse impact to the Lyackson's traditional territory, including ancestral remains and sacred sites; travel ways and trails; hunting, harvesting and plant-gathering sites; gathering places; and submerged lands. Lyackson remains concerned about the effects of existing development on the health of the ecosystem and resources harvested. By threatening interlinked lands, waterways, and ecosystems, the TMEP threatens preservation and governance of Lyackson's traditional territory. The project further presents adverse effects associated with the social, cultural, mental, spiritual, and emotional wellbeing of Lyackson members from the compromise of traditional territory and ability to perform cultural practices. The proponent and the board have not demonstrated that they have adequately understood, assessed and addressed Lyackson's cultural and spiritual concerns associated with TMEP.

Socio economic

- The Board concludes that the project presents an economic opportunity for Aboriginal communities, although the ability of Aboriginal groups to use lands, waters, and resources would be disrupted. Lyackson has not expressed interest in gaining economic opportunities as a result of the project. Lyackson has shared with the proponent a Traditional Use report, indicating the socioeconomic goals of the First Nation. These socio economic goals are related to sustained cultural practises, which are directly threatened by the TMEP. As the Crown is aware, impacts of the Project on hunting, trapping, gathering, fishing and marine harvesting activities may have a subsequent impact on Aboriginal title and traditional governance systems, given that any residual effects to these traditional practices or the underlying ecological or socio-economic support systems may symbolize a reduction in the ability for Aboriginal groups to assert control over their future use of an area or cultural expression. Loss of economic opportunities from traditional harvesting and tourism is linked to Lyackson's existing cultural identity, which cannot be compensated by economic opportunities in the project. There has been no accounting for potential adverse economic impacts of increased marine traffic in the Salish Sea on Lyackson's economic interests. Trans Mountain has provided irrelevant mitigation proposals to potential adverse impacts to Lyackson's economic interests, including procurement, employment and training, despite the fact that Lyackson has not expressed interest in contracting opportunities on the Project.
- The TMEP will cause significant socioeconomic impacts to Lyackson due to increased marine traffic, which will impact viability of salmon, prawn, crab, herring and rock fish licenses on and around Le'eyqsun (Valdes Island) and the Salish Sea, as well as tourism opportunities and commercial fisheries, such as investments in rebuilding its ancestral villages to carry on traditional uses of the island for shellfish harvesting, fishing and aquaculture. The threat to Lyackson's economic opportunities and existing economic activities in turn presents impacts to Lyackson governance and planning, including the ability of Lyackson First Nation leadership to uphold hereditary duties. The potential impacts caused by TMEP on marine resources and valued components further threaten goals and visions for the future Lyackson community and economic development opportunities on Valdes Island, including ability for resettling Lyackson First Nation families to engage with confidence in island-based subsistence harvesting and business. It further impacts planned future uses such as tourism based economic development and other economic and community plans for Valdes Island and threatens protection of values on Valdes Island, including ancestral sites and traditional harvesting rights and responsibilities. The proponent and the Board have not demonstrated that they have adequately understood, assessed and addressed Lyackson's complex socio economic concerns associated with TMEP.

Rights and Title

- There is little indication that the proponent has adequately considered or addressed potential adverse impacts of the proposed project on Lyackson's prima facie Aboriginal rights and title interests. Trans Mountains' application was flawed regarding understanding Lyackson's constitutional rights and interests. Lyackson has provided extensive evidence of its right and

interests to Trans Mountain and the Board during the Hearing process far beyond what was outlined by Trans Mountain in the CPCN. Lyackson's rights and title set out in the CPCN does not adequately reflect the rights and title evidence provided by Lyackson in its LUOMS and the oral hearings. Trans Mountain acknowledged that new significant potential areas of prima facie title claim at Le'eyqsun and its surrounding waters were presented in its LUOMS and the oral hearings, however no indication on how these concerns could be addressed or mitigated were presented. Lyackson has not received an adequate response from the Crown or the proponent to clear stated prima facie claims required for adequate consultation. The Crown needs to identify, consider and address the potential adverse impacts of the proposed projects on Aboriginal rights. This cannot be done based on a flawed assessment of Lyackson's rights, title and interests.

- There appears to be some further information required in order for the Crown to fully understand the Lyackson's interests. There are in several occasions in the report where it is stated that it is "unclear" in regard to Lyackson at 1846, and what Lyackson's relationship with the other Hul'qumi'num communities could mean in relation to areas affected by this project. Lyackson will forward any additional information they have or acquire in the future to assist in clarifying this matter.

Review Process

- Lyackson remains concerned regarding to the efficacy of the NEB process methodology, its ability to define a meaningful scope; communicate clearly, fairly, and accessibly, in a government-to-government basis; and ensure enforcement and compliance with Project's terms and conditions. The review process has indicated poorly understood baseline conditions, lack of knowledge of cause and effect relationships, lack of scientific certainty in the review of Project specific data, high degree of subjectivity applied. As a result, the NEB conditions have not adequately reduced or avoided the directly or indirect concerns raised by Lyackson regarding potential impacts on other traditional and cultural practices. The NEB conditions further fail in addressing effects on Aboriginal communities and specific effects on Aboriginal interests.
- Appendix D4 seems to clearly summarize information and process to date. As Lyackson is undergoing transition from one Lands and Resources Coordinator to another, Lyackson may have further comment to offer at a later date.

Conclusion

The adverse effects of the Project on Lyackson Aboriginal interests and rights is high. Adequate measures to avoid, mitigate or otherwise appropriately address or accommodate such effects have not been presented by the proponent or the Board. The proponent has made broad general statements about the consultation process. However, no discussion has occurred with Lyackson to identify mitigation measures and the proponent has not identified any mitigation measure. The Draft report reflects issues raised, based on the assumption of the safe operation of such a project and those

concerns are summed up. One of the greatest fears is the increased tanker traffic and an accident occurring. As Lyackson's new Land and Resources Coordinator completes the transition, further comments may be sent in regards to this project.

Based on the outstanding concerns, the TMEP is likely to cause significant adverse environmental effects on Lyackson's interests and rights, including disturbed marine and foreshore habitats, marine pollution, sensory disturbance (light, noise, and vibration), boat and canoe accidents, adverse impacts to transportation routes, salmon fishing, prawn fishing, traditional seal, whale and sea lion hunt. The adverse effects could potentially have catastrophic effects on cultural and socioeconomic wellbeing of Lyackson, in particular in case of an accident.

While the Crown has concluded its analysis of the strength of claim of Lyackson, Lyackson clearly feels that their strength of claim is strong. Any information that can assist in this regard will be forwarded at a later date.

In summary, the Board has presented no meaningful measures to mitigate cultural, environmental and socio economic concerns or infringement on section 35 rights. There has further been a lack of adequate consultation and response to Lyackson's rights, title and interests evidence. Lyackson feels strongly that the impacts and potential impacts are too great a risk for this project to continue.

Sincerely,



Linda Aidnell
Land and Resource Coordinator
Lyackson First Nation



*Lyackson First Nation
7973A Chemainus Road
Chemainus BC V0R 1K5
Telephone: (250) 246-5019
Fax: (250) 246-5049*

March 15, 2017

Lyackson First Nation concerns with Large Vessels anchorages and traffic

Introduction

Lyackson First Nation is a Hul'q'umi'num-speaking Coast Salish group with a registered population of 198, as of August 2015. The majority of Lyackson First Nation members live off-reserve and in or near Lyackson First Nation ancestral lands located on the eastern shore of Vancouver Island and the adjacent southern Gulf Islands of the Salish Sea. However, the eastern Gulf Island of Le'eyqsun (also known by its English name, Valdes) is the cultural homeland of the Nation. Lyackson First Nation is part of the Hul'q'umi'num Mustimuhw, a group of six Vancouver Island First Nations that together form the Hul'qumi'num Treaty Group (HTG). The HTG is currently in Stage 4 of the BC Treaty process. Le'eyqsun is unique as the homeland of the Lyackson people, one of the primary locations of Lyackson First Nation's villages and oral histories, and is one of the few remaining islands in the Salish Sea that remains largely undisturbed by development or contamination from residential or industrial sources.

Lyackson First Nation maintains a broad view of its Aboriginal rights and title, including cultural, subsistence, transportation, governance, and commercial rights, extending from the heartland of Le'eyqsun, including surrounding waters and foreshore, and across the Salish Sea to the mouth and south arm of the Fraser River and village site at Tl'uqtinus. The Crown has determined that Lyackson First Nations holds strong claims in portions of the southern Gulf islands that lie to the west of Galiano Island and above Active Pass and areas proximal to Le'eyqsun. As such, consultation within this portion of the southern Gulf Islands fall within the highest consultation spectrum, with the deepest level of consultation.

Background

Lyackson First Nation is extremely concerned about current freighter and tanker (large vessels) traffic and anchorages within Lyackson's traditional territory and marine use area. Lyackson members and Land and Resources staff are currently observing between four to ten freighters anchored at any given time in Pylades Channel of the Le'eyqsun west coast. Some of the freighters have been observed anchored at the same location for several month. There are highly significant sacred sites immediately across from the anchorage freighters.

Lyackson Land and Resources contacted Transport Canada in the fall of 2016 regarding specific concerns with the anchorages of the Le'eyqsun west coast. Transport Canada met with Lyackson Land and Resources staff in February 2017 to discuss these concerns (hereinafter referred to as "the meeting"). It

should be noted that Lyackson First Nation's concerns with large vessels extend beyond the anchorages of Le'eyqsun. Although this report is intended to focus on the anchorages, the issues applies to all large vessel traffic within Lyackson's traditional territory and marine use area. It should further be noted that this report does not provide a full representation of all of Lyackson's concerns associated with large vessel traffic within the Nation's marine use and traditional territory. Further studies are necessary to fully comprehend all aspect of the issues that the Nation is facing today as a result of the large vessel traffic.

Environmental

Light

A bright light is emitted at night from the anchored freighters. This anthropogenic light is highly visible from the shoreline of Le'eyqsun at night (see picture attached) and interferes with the natural night sky. Salmonids; including chinook (king salmon), herring, sockeye and eulachons are negatively affected by light pollution from freighters. Some species are attracted to light, while others avoid it, thus disturbing the natural behaviour and migratory patterns of these species. Lyackson First Nation's traditional uses and cultural activities are directly related to the ability to harvest salmonids. Light pollution is a significant contributing factor to the reason why salmonids today are becoming scarce within Lyackson's marine use and traditional territory.

Transport Canada has informed Lyackson First Nation about improved regulations with respect to light pollution. Despite these "improved" regulations, Lyackson First Nation continue experiencing negative effects as a result of existing light pollution from freighters. Lyackson First Nation questions the effectiveness of the light pollution regulations, as well as the adequacy of threshold levels and enforcement of the regulations.

Noise

Sound caused by large vessel propellers, running engines and on board maintenance work is causing negative impacts on marine life. Anthropogenic noise is known to impede migration of adult and juvenile salmonids, including: sockeye, chinook (king salmon), herring and eulachons. Sound waves and vibration further interferes with underwater communication, navigation and feeding of Cetaceans that rely on acoustically being able to sense their surroundings. The noise caused by large vessels thus presents a serious threat to the survival of local populations of marine mammals such as transient and resident killer whales, pilot whales, fin whales, minke whales, humpback whales, dolphins and porpoises. Lyackson elders are extremely concerned about noise causing damaging impacts on local populations of killer whales; both directly due to interference with navigation and communication, as well as indirectly as a result of displaced food sources due to impacted prey.

Transport Canada has informed Lyackson about improved regulations that supposedly have been adapted with respect to noise pollution. Despite these "improved" regulations, Lyackson continue experiencing concerns with existing levels of noise pollution levels. Lyackson therefor questions the effectiveness of the regulations with respect to noise pollution, as well as the adequacy of threshold levels and enforcement of these regulations.

Water quality

Lyackson First Nation is concerned about contamination of water within the Nation's marine use and traditional territory. Specifically, large vessels have the potential to further deteriorate water quality due to engine exhaust, unauthorized release of waste water, ballast water and bilge water from tugs that may be released by rain, condensation and leaking vessels. Lyackson First Nation holds a shellfish lease of the coast of Cardale point and Shingle point, where a number of freighters currently are anchored without approval by Lyackson First Nation. Contaminated water as a result of accidental spills and/or unauthorized release of wastewater from large vessels could potentially be detrimental to Lyackson First Nation's shell fish harvest.

Toxins in the water are known to negatively affect shellfish and crustacean, which are vastly important for Lyackson First Nation's sustenance. Toxins present in the marine environment from industry, accidental spills and large vessel traffic is known to bioaccumulation into the fatty tissues of marine mammals higher up the food chain. Lyackson First Nation and neighbouring villages are renowned among the Coast Salish for their tradition of marine mammal hunting. Seals, sea lions and whales are significant to Lyackson First Nation due to their sustenance and cultural importance. As a result of the elevated level of toxins in the coastal waters, there is current advisory against consuming marine mammals. The deteriorating water quality to date is thus already impacting Lyackson's ability to practise rights and interests that sustain their culture. Lyackson First Nation is vastly concerned about continued deterioration of the water quality that could seriously harm future generation's ability to sustain their culture and practise their inherent aboriginal rights.

Coast Guards have informed Lyackson First Nation that it is not within their mandate to conduct routine check-ups on large vessels, since they only conducts monitoring in the case of accidents. There is seemingly no authority responsible for conducting routine inspections of the vessels anchored within the First Nation's traditional territory and marine use area. At the meeting, Transport Canada informed Lyackson Land and Resources staff that regulations are in place to deal with waste water management and pollution at sea. Lyackson First Nation is however not assured that the current thresholds in place for water quality regulations are satisfactory for protecting aboriginal interest, nor that the regulations in place are being adequately enforced.

In the absence of sufficient thresholds and enforcement with respect to waste water and pollution at sea, Lyackson First Nation remains concerned about the lack of adequate measures to prevent further deterioration of the quality of the water and marine life within Lyackson's traditional territory and marine use area.

Greenhouse Gas emissions

Freighter engines are constantly running, even when the vessels are anchored. The continued release of greenhouse gas emissions affects climate change and cause catastrophic weather patterns that adversely impact plants, animals and people. Greenhouse gases and air pollution threatens Lyackson First Nation's existing and future ability to practise their rights and interests, as it contributes to deteriorating quality and quantity of resources that sustain Lyackson's sustenance.

Transport Canada has informed Lyackson First Nation about improved regulations that are intended to limit sulphur content in emissions. Despite these supposedly improved regulations, Lyackson First Nation remains concerned that the current level of greenhouse gases emitted by large vessels to date is

unacceptable. Lyackson First Nation has to date not been consulted on adequate threshold levels for greenhouse gas emissions. It is unclear how current thresholds for greenhouse gases accounts for impacts to First Nations and how current greenhouse gas regulations are being effectively monitored and enforced. Without adequate enforcement and/or effective threshold levels, Lyackson First Nation's concerns with respect to greenhouse gas emissions remain outstanding.

Additional threats

Large vessels have been observed anchoring at locations outside the Southern Gulf Islands with strong currents, where the vessel anchor is dragged on the sea floor. Lyackson First Nation is concerned that the large vessel anchors disturb marine life on the muddy sea bottom, such as crustaceans including prawns and crabs, and ground fish species including rat fish, sole, flounder and pacific white skate. In addition, significant cultural shell fish gardens are eroding as a result of increased vessel wakes.

Lyackson First Nation is further concerned about the possibility of large vessels spreading invasive species and foreign pathogens by nets, fishing gear, boots, propellers, anchors, ropes and other equipment used in and around the water. Lyackson First Nation is not assured that adequate enforcement measures are in place to prevent spread of invasive species including insects, plant seeds, birds, aquatic species, fungi and foreign diseases or parasites.

Lyackson First Nation is also concerned that freighter crew may engage in illegal fishing activities while the freighters are anchored. Although there are regulations in place to deal with poaching, Lyackson First Nation is concerned that these regulations are not actively and/or adequately enforced.

Safety

Access

Large vessels impose a navigation hazard to Lyackson First Nation members that use small boats or canoes for transportation and harvesting purposes. Many members today avoid and/or are unable to travel on the Sea using their preferred mode of transportation, due to high risks of collisions with large vessels and capsizing due to freighters wakes. The navigation hazard imposed by the large vessel traffic prevents Lyackson members from accessing preferred harvesting sites within their marine use area and traditional territory. The reduced access and safety concerns associated with freighter traffic constitutes an infringement on Lyackson's ability to practise their rights and interests.

Accidental spill

To date, Lyackson First Nation is not being notified or informed by any responsible Government agency about the freight load of anchoring large vessels within their traditional use and marine use area. Lyackson First Nation has however heard from other sources about large vessels anchoring around Le'eyqsun with radioactive material in their cargo. Tankers carrying petroleum is another immense concern to Lyackson First Nation.

There are numerous reefs around the Southern Gulf Islands, presenting a vast threat for potential freighter collision. Freighters have been observed trying to navigate the narrow channels around the

Southern Gulf Islands and reefs with great difficulty. The risks associated with potential large vessel collisions is amplified due to unpredictable weather patterns.

An accidental spill within Lyackson First Nation's traditional territory and marine use area could potentially be devastating for Lyackson First Nation's shell fish gardens. A spill could further cause detrimental effects on other marine life that Lyackson depends upon for their sustenance and cultural practises.

As clearly demonstrated by last year's spill at Bella Bella, and the most recent diesel spill northeast of Port McNeill, the current response team is clearly unequipped and incapable of conducting efficient marine cleanup operations. Weather and time of day was stated as reasons for the prolonged recovery efforts. As unpredictable weather conditions are expected to worsen due to climate change, Lyackson First Nation is deeply concerned about the fact that the Government to date is unprepared to effectively deal with accidental spills. The conditions and marine ecosystem of the Southern Gulf Islands is unique, highly sensitive and unpredictable. Specialized recovery methods would therefore be required for unique sites around the Southern Gulf Islands that may be challenging to predict.

Given the high stakes associated with accidental spills, the precautionary principle should be applied, i.e. no large vessels should be allowed to enter Lyackson First Nation's territory until satisfying emergency response mitigations are in place. To date, Lyackson First Nation is not aware of any effective emergency response measures that effectively would prevent potential spills from causing serious harm to the Nations' livelihood, culture and rights.

Health

Food quality

Lyackson First Nation is facing health implications that are directly linked to the reduced quality and quantity of marine life that sustain the member's ability to practise their rights and interests. The noise and light from freighters is currently interfering with behavioural patterns of salmonids that are of uttermost cultural significance and a staple food source for Lyackson First Nation. The scarcity in salmonids is impacting Lyackson member's ability to sustain a nutritious traditional diet. Large marine mammals are further highly important to Lyackson's culture and traditional livelihood. Marine mammals, in particularly Cetaceans (whales, porpoises and seals) are suffering immensely as a result of large vessel noise, collision risks as well as displacement of their food source due to anthropogenic sensory disturbances.

As discussed above, the intrusion of large vessel traffic within Lyackson's traditional territory may negatively impact the water quality in the Lyackson First Nation's marine use and traditional territory. Marine life is known to accumulate metals and toxic chemicals caused by pollution. The toxins magnify (bio magnification) at elevated levels of the food chain, which ultimately accrues in the fatty tissues of large marine mammals. Lyackson First Nation members are today advised to avoid their once staple food source of large marine mammals, due to the negative impacts of bio magnification. There is further concern that toxins accumulate in fatty tissues of salmonids, with consequential negative health impacts to Lyackson members that rely on this once plentiful and highly nutritious food source. The shell fish gardens outside Le'eyqsun were traditionally and continue to be a vastly significant food source for Lyackson members, including clams, oysters and crabs. The ability of molluscs, crustaceans, and echinoderms to absorb chemicals and pathogens in their tissues is further threatening Lyackson

member's ability to sustain their traditional livelihood. All the threats outlined above would amplify in magnitude in the event of an accidental marine spill.

Lyackson First Nation's identity as a people is defined by their ability to be part of the food chain through harvesting and sustaining a livelihood based on what the land and waters provides. However, the ability of Lyackson members to uphold their traditional livelihood and relying on a natural diet today and for future generations to come is challenged due to degradation and reduction in marine life. The negative environmental affects resulting from large vessel traffic and other industrial development is linked to lost ability for Lyackson members being able to sustain their livelihood by relying on a traditional high quality diet with associated harvesting activities, which in turn is degrading Lyackson's physiological wellbeing.

Social well being

The sensory disturbances caused by large vessels are interfering with Lyackson member's ability to connect with nature, which is critical for their cultural existence. The sensory, environmental and safety effects imposed by large vessel traffic and anchorages are further infringing on Lyackson members' ability to access high quality and quantity resources, which is fundamental for individual Lyackson members' ability to coincide with nature in a cultural context. By effectively contributing to reduced opportunities to practise cultural interests and sustaining a traditional livelihood, the imposing large vessel traffic is threatening to uproot Lyackson member's cultural identity. The sense of loss of cultural identity due to modern anthropogenic causes and industrialization is having implications on Lyackson member's social and mental wellbeing.

Culture

Sensory disturbances

Lyackson members are retreating to Le'eyqsun to ground their senses and reconnect with mother earth. However, the noticeable noise from large vessel traffic and anchorages around Le'eyqsun is disturbing the natural peace and muffling the natural sounds. The sensory interferences caused by these large vessels is disturbing sense of serenity, as well as the ability to hear, see and sense natural cues, which is fundamental for Lyackson member's ability to carry out their harvesting activities. Given the fact that Le'eyqsun is a sandstone island, sound and vibration travels extensively across the island. A rumbling, echoing sound from large vessel engines and on board-maintenance work and construction has been reported by Lyackson members at several locations of Le'eyqsun, including at the center of the island.

The light pollution from large vessels is further clearly visible on Le'eyqsun at night. This anthropogenic light source interferes with the ability to clearly view the stars, which are essential for navigation by several animals and traditionally also by Lyackson members. From a cultural belief, the disturbance of the night sky further interferes with the "little people". Lyackson members are further reporting being able to smell diesel fumes from freighters on Le'eyqsun. Anchored freighters also constitute an eyesore, where the visual sensation of large vessels in the otherwise relatively pristine environment presents a disturbing reminder of western world intrusion on First Nation's rights.

The ability to connect with nature through all five senses is a cornerstone in Lyackson First Nation's ability to retain their culture and uphold their traditional livelihood practises. The large vessels

interference with smell, vision, sound, noise and vibration is thus threatening the very core foundation of Lyackson First Nation's cultural existence.

Spiritual

Reduced harvesting opportunities within Lyackson First Nation's traditional territory and marine use area is forcing Lyackson members to seek alternative and often remote harvesting sites, in order sustain their traditional livelihood. This barrier to accessible and abundant quality harvesting sites created by the large vessel traffic interferes with Lyackson's connection to their land and sense of belonging to places that have been used for generations.

Based on Hul'qumi'num cultural beliefs and practises, deceased ancestors should not be disturbed by noise or light after 3pm. Current freighter anchorages are emitting disturbing light and noise immediately across the west coast of Le'eyqsun, where several Lyackson members' burial and sacred sites are located. The anthropogenic light and noise caused by these freighters is interfering with and disrespecting Lyackson First Nation's cultural and spiritual practises and beliefs.

Socio-economic

The pollution caused by large vessels within Lyackson First Nation marine use and traditional territory is impacting the quality and quantity of marine animals, including salmonids, marine mammals, and shellfish. The reduced quality and quantity of marine resources is having negative implications on Lyackson member's ability to harvest and sustain their traditional livelihood. Reduced harvesting opportunities within Lyackson First Nation's traditional territory and marine use area is forcing Lyackson members to seek alternative and often remote harvesting sites, in order sustain their traditional livelihood. The displacement from preferred traditional use areas impacts Lyackson members financially, since being forced to travel further from the traditional territory to sustain a livelihood is associated with an increased economic cost.

Lyackson First Nation is currently exploring opportunities for ecotourism on Le'eyqsun. The tourism business on Le'eyqsun relies on a nature based experience, attracting tourists that desire a pristine nature experience. The current freighter anchorages are highly visible from the shore of Le'eyqsun constitute an unpleasant eye sore and create disturbing sensory impacts. By destroying the sense of serenity expected in a pristine environment, the existing freighter anchorages are thus threatening to harm Lyackson's tourism business, with damaging impacts to Lyackson First Nation's economic growth opportunities.

At the meeting Transport Canada indicted that international freighters are anchored outside Le'eyqsun for extended periods of time in anticipation of more profitable trading opportunities, as dictated by the foreign exchange market. It is not justifiable in any way that Lyackson First Nation's environmental, cultural, health and economic values should be overlooked and suffer as a consequence of foreign investment profits.

Cumulative impacts

The issues and concerns presented above are all interconnected and cumulative. For example, the light pollution from large vessels impacts migration and behavior of salmonids, which is causing their populations to dwindle, thus affecting Lyackson members' ability to sustain their traditional diet, which further impacts their physical health. The displacement of fish due to light is further impacting marine mammals higher up the food chain that feed on the fish. A loss of reliance on traditional food further degrades Lyackson First Nation's ability to sustain their cultural practises, which further impact their social, mental and spiritual wellbeing. Lyackson members that wish to sustain their cultural practises despite the loss of a reliable food source within their traditional territory now have to travel further from their marine use areas, with consequent financial implications. The light pollution caused by large vessels further reduces Lyackson First Nation's opportunity to offer a pristine nature experience for eco-tourism on Le'eyqsun, which impacts the Nation's future economic viability. The light pollution is further interfering with spiritual beliefs and cultural practises that depend on a clear night sky, which further damage the mental, social and spiritual wellbeing of Lyackson members.

Any single environmental effect caused by large vessels in Lyackson's marine use area is amplified by consequences of numerous other impacts, i.e. the negative effect of light pollution is combined and escalated as a result of impacts caused by noise and reduced water quality. Given that all issues caused by large vessels are interlinked and the fact that any one issue magnifies the effects of other issues, the concerns associated with large vessels cannot be resolved in isolation but must be addressed from a holistic approach that account for the combined cumulative impacts. It is further important to note that the issues and concerns presented above are not inclusive. More studies are required to fully understand the environmental impacts associated with large vessels within Lyackson's marine use and traditional territory, including how these impacts affect First Nations' values, interests and wellbeing today and in the future.

Consultation

Free, Prior and informed Consent

Lyackson First Nation has to date not been consulted on any of the large vessel anchoring locations that currently are infringing on Lyackson's right and interests within their marine use and traditional territory. During the meeting, Transport Canada informed Lyackson that the duty to consult does not extend to marine large vessel anchoring locations. This contradicts with experiences shared with previous Lyackson Land and Resources staff, where Lyackson First Nation apparently was contacted regarding consultation on anchorages outside Gabriola Island.

The lack of First Nations consultation on large vessel anchorages that currently are directly infringing on Lyackson First Nation's rights and interest within their marine use and traditional territory further contradicts with Article 32 of United Nations Declaration on the Rights of Indigenous Peoples:

1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources;
2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval

of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources;

3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.

Article 32 of United Nations Declaration on the Rights of Indigenous Peoples states that Indigenous Peoples have the right to self-determination and self-governance in government decision making processes involving projects that concern their lives and resources. Free, prior and informed consent is the principle that an Indigenous community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use.

Lack of Responsibility

During the meeting, Transport Canada informed Lyackson First Nation that the Gulf Islands are effectively utilized as an overflow parking lot, for large vessels that have no room to anchor at the Vancouver harbour. Transport Canada were not able to provide Lyackson First Nation with names or contact information to representatives responsible for directing freighters to anchorages outside the Southern Gulf Islands. Based on information shared by Transport Canada, it seems to be the case that large vessels are authorized to anchor anywhere in the so called “overflow parking” outside Le’eyqsun, without any oversight and/or consultation with impacted First Nations. Furthermore, Transport Canada does not seem to have any record of the period of time that international freighters remain anchored for. In addition, Transport Canada has not been able to provide Lyackson with any clear answers regarding who is overseeing and monitoring the large vessel anchorages around the Southern Gulf Islands.

Lyackson is extremely concerned about the fact that no provincial or federal government authority is claiming responsibility for the large vessel anchorage locations within the nation’s marine use and traditional territory. This clearly raises concerns with respect to authorities’ ability to enforce existing regulations. This is further a huge concern with respect to safety, as well as with respect to all other concerns outlined in this report.

Transport Canada has referred to the “Ocean Protection Plan” as a potential solution to resolve outstanding concerns with large vessels. It is important to note that this plan only exists conceptually to date. Lyackson First Nation will only endorse this plan after it has been developed in collaboration with coastal First Nations and only if these Nations are resourced with adequate capacity funding necessary to prepare a plan that effectively identifies adequate thresholds and mitigates all cumulative concerns.

Conclusion

There are currently several outstanding environmental, cultural, spiritual, economic and safety impacts associated with large vessel traffic and anchorages that currently are infringing on Lyackson’s rights and interests. Existing large vessels within the Lyackson First Nation’s marine use and traditional territory threatens the Nation’s ability to preserve their sustenance, culture and traditional practises to date and for future generations. Any activities that are impacting marine mammals either directly (i.e. collisions, noise and light) or indirectly (i.e. impacts to the quality and/or quality of traditional food sources and

cultural impacts), potentially presents an infringement on Lyackson First Nation's rights and interests. Any one negative environmental impact associated with large vessels cannot be assessed in the absence of other effects, since the impacts are cumulative and amplified in extent when combined with other environmental effects.

The impacts discussed in this report are anticipated to multiply several fold in magnitude with any new project approvals that are proposing increased large vessel traffic. It is negligent to approve projects that intend to increase large vessel traffic, when the negative impacts and consequences caused by existing large vessels within Lyackson First Nation's marine use and traditional territory remain outstanding. The current impacts must be adequately assessed and addressed, according to Lyackson First Nation's standards, prior to authorizing any projects that likely would escalate existing problems.

In conclusion, Lyackson First Nation objects to any large vessel traffic within their traditional territory and marine use area, until the Nation has been meaningfully consulted on potential impacts, as well as adequately accommodated for existing impacts. According to the UNDRIP Article 32 principle of free, prior and informed consent, no large vessels should be allowed into Lyackson's territory without the First Nation's prior consent. Lyackson First Nations does not grant consent for large vessels within their traditional territory and marine use area until a sufficiently responsible system is in place for managing and monitoring large vessels, including enforcing existing regulations based on satisfactory thresholds and effectively responding to accidental spills. Lyackson First Nation requests to be involved at all levels of management of large vessels within their marine use and traditional territory, including authorization, planning, studying effects, monitoring, inspection and emergency response.

Requests

Monitoring

- Lyackson First Nation requests to be notified about all large vessels that currently are anchored around Le'eyqsun, as well as within Lyackson First Nation's marine use and traditional territory.
- Lyackson First Nation requests that the Government provides Lyackson with detailed information on all large vessels within the Nation's traditional territory and marine use area, including information on scheduled arrival and departure date, freight load and contact information to vessel captain and responsible agents. Lyackson reserves the right to at any time access these vessel to conduct routine inspection of vessels, equipment etc.
- Lyackson First Nation requests copies of inspection reports for all large vessels within their marine use and traditional territory, to ensure that all regulations are adequately enforced.

Consultation

- Lyackson First Nation requests that regulations are implemented that holds the Government accountable to meaningful consultation with local First Nations regarding large vessel anchorages within the Nation's marine use areas and traditional territory.

- Lyackson First Nation demands that the Government provides Lyackson Land and Resources staff with contact information to agency representatives responsible for authorizing large vessel anchorages in any waters surrounding the Southern Gulf Islands.
- Lyackson First Nation demands that the Government honours Canada's signing of UNDRIP and thus not allows any large vessels within Lyackson First Nation's marine use and traditional territory without free, prior and informed consent by potentially impacted and directly affected First Nation.
- The Government must provide adequate accommodation for existing large vessel anchorages within Lyackson First Nation's marine use and traditional territory and consequent impacts to the Nation's rights and interests.

Thresholds and Mitigations

- Lyackson First Nation demands that the Government addresses and mitigates the concerns associated with light, noise and water pollution as a result of large vessel traffic that currently is infringing on Lyackson's rights and interests.
- Lyackson requests that the Government collaborates with Lyackson First Nation to develop regulations for light, noise and water pollution with thresholds that sustains and upholds Lyackson First Nation's rights and interests within their marine use and traditional territory. Adequate thresholds must take into account credible scientific information, as well as adhering to traditional knowledge.
- Lyackson First Nation requests that prior to allowing any further anchorages within Lyackson First Nation's marine use and traditional territory, the Government must fund a comprehensive independent sea floor survey to effectively assess impacts caused by existing large vessel anchorages. The study must be conducted in collaboration with Lyackson First Nation, by experts approved by the Nation.
- Lyackson First Nation requests that prior to approving any new projects that would result in increased large vessel traffic within the Nation's marine use and traditional territory, the Government must conduct a cumulative impacts assessment of all existing freighters impacts to coastal First Nations. Such a cumulative impact assessment must be conducted in collaboration with potentially impacted First Nations in order to be considered meaningful. Furthermore, these First Nations must be provided with adequate capacity funding required to provide information necessary for a justifiable cumulative impacts assessment.

Safety

- Lyackson First Nation requests that no further freighters should be allowed within the Nation's marine use and traditional territory until an adequately funded and effective emergency response plan has been developed in collaboration with and endorsed by local First Nations.

Sincerely,



Linda Aidnell
Land and Resource Coordinator
Lyackson First Nation



*Lyackson First Nation
7973A Chemainus Road
Chemainus BC V0R 1K5
Telephone: (250) 246-5019
Fax: (250) 246-5049*

April 26, 2018

Via email: Susan_Stobbert@transmountain.com

Susan Stobbert
Office Manager
Trans Mountain Expansion Project
Kinder Morgan Canada Inc.
PO Box 81018, South Burnaby, Burnaby, BC, V5H 3B0

**Re: Provincial Permitting Authorizations for Ministry of Transportation and Infrastructure (MOTI)
– Wave 2**

Thank you for your letter of February 5, 2018, sent by your colleague Georgia Dixon in response to Lyackson First Nation's ('Lyackson') concerns with Provincial Permitting Authorizations for Trans Mountain Expansion Project (TMX). Please find attached Lyackson First Nation's response to Trans Mountain's letter, highlighting the outstanding concerns with respect to impacts to fish, impacts to Killer Whales, spill response, responsibility, consultation process and cumulative impacts.

Sincerely,

Linda Aidnell, Land and Resource Coordinator
Lyackson First Nation

Emails: linda.aidnell@lyackson.bc.ca

**Lyackson First Nation
(Lyackson)
Responses to Trans Mountain Letter of February 5, 2018 in response to concerns with
Trans Mountain Expansion Project
(TMX)**

Impacts to Fish

Trans Mountain states that considerable efforts have been made to ensure that the construction of the TMX is completed in a manner that avoids “serious harm” to fish and fish habitat. Trans Mountain claims that this will be achieved by constructing watercourse crossings during periods of “least risk” and that site specific mitigation has been developed to avoid potential serious harm.

Although Lyackson appreciates Trans Mountain’s efforts to ensure that TMX is constructed in a manner that “avoids serious harm to fish and fish habitat”, Lyackson questions who is making the judgement call about what constitutes “serious harm”. The definition of “serious harm” is abstract, vague and subjective. For the last five years, First Nations including Lyackson have suffered cultural impacts from not having any Sockeye salmon. It should further be noted that all salmonid species are of importance to Lyackson, including herring, Chinook, Coho and Chum. The state of migrating salmonid species is already threatened to date, with continuous declining populations. From a Right holder’s perspective, Lyackson maintains that serious harm to salmonids has already occurred and will continue occurring and magnify in severity, should the TMX project be allowed to proceed. Lyackson is not confident that the site specific mitigations proposed by Trans Mountain to avoid potential serious harm will be adequate to maintain and restore already critically declining salmonid populations.

Although Lyackson appreciates Trans Mountain’s attempted effort to mitigate effects by constructing water crossings during periods of “least risk”, Lyackson questions who determines what constitutes “least risk” periods and how these periods are identified. Numerous salmonid species rear and spawn during different times. Therefore, what could be considered lower risk to Coho, Chinook and Sockeye may be high risk time for Trout or any other fish species, at different stages of their lifecycles.

Lyackson maintains that if allowed to proceed, the TMX project would augment pressure to already existing obstacles along the salmonid migration route. Proposed activities along tributary streams, creeks and water crossings during construction of the project would likely contribute to sediment deposition, noise, and pollution from equipment that would add pressure to already stressed fish populations. Project activities such as water diversion, drainage and clearing and would further leave lasting effects on several species and their habitats, including landscape fragmentations, modified migration paths and increased forest fire risk. Should even a minor spill occur along the pipeline route, this could cause devastating effects to the quality and quantity of the local and regional fish population. Ocean migrating salmonids, including herring and salmon species (e.g. Chinook, Coho, Sockeye, Pink and Chum) would further be impacted by the Project associated increase in large vessel traffic and consecutive effects of light pollution, noise pollution, chemical pollution, foreign invasive species (e.g. zebra mussels), as well as acidification and rising temperatures due to greenhouse gas emissions.

Salmon is a keystone species that is critical for the survival of numerous other species in the ecosystem, with important linkages at all levels of the ecosystem, from primary producers and aquatic invertebrates, to aquatic vertebrates, terrestrial invertebrates and a diversity of terrestrial vertebrates including large carnivores, small mammals, amphibians and birds (Hyatt, K. & Godbout, L. 2000). Given the diversity in salmon species, their life history and widespread range in freshwater and marine ecosystems, salmon are commonly used as biological indicators of the state changes of marine and terrestrial riparian ecosystems (Hyatt, K. & Godbout, L. 2000). A healthy salmon population is an indicator of a healthy environment, healthy sea, healthy human population and a healthy economy. Lyackson maintains that if allowed to proceed, TMX will cause harm to fish populations, as well as numerous other animal species and habitats along the pipeline route as well as within the greater ecosystem.

Trans Mountain states that they are committed to providing funding to the Pacific Salmon Foundation. Lyackson appreciates Trans Mountains' commitment to fund the Pacific Salmon Foundation. More research on threats to salmon at all stages of their lifecycle is required to inform establishment of successful recovery measures. However, providing funding to research on the Pacific salmon population while and at the same time impetuously moving forward with a project that will cause further impacts to already vulnerable fish populations cannot be considered an effective mitigation measure. It must be acknowledged that scientific studies take years of research to produce reliable and measurable results. Given the current critical state of various salmonid populations and the knowledge gaps in the understanding of interacting cumulative threats and requirements for informed mitigation measures; the responsible thing to do would be to wait for the research to produce results, prior to moving forward with the project. Trans Mountains method of providing funding to research, while at the same time proceeding with constructing before science based mitigation measures are in place, is a haphazard approach doomed to further exaggerate existing impacts. If Trans Mountain is serious about making an effort to protect Salmon, it is necessary to halt further construction and alteration within critical salmon habitats until scientifically informed measures for conserving vulnerable and declining populations are in place.

Various researchers presenting at the Salish Sea conference in Seattle in April 2018, has concluded that salmon populations currently are under severe threat. Science today demonstrates that unless current levels of development is scaled back significantly, the chances of population recovery is extremely slim. Given the critical state that the salmon population is in to date, it is not enough to focus on maintaining existing numbers. A concerted effort to mitigate threats to various salmonids must rather focus on restoring populations to sustainable levels prior to allowing further destruction to habitats along their migration route. If Trans Mountain is seriously committed to protecting the declining populations of salmonids, the proponent must cease any plans to develop until these populations have recovered to sustainable levels that are capable of withstanding the project impacts.

Impacts to Killer Whales

Trans Mountain acknowledges that past and current anthropogenic activities have caused adverse effects on the Southern Resident Killer Whale (SRKW) population. Trans Mountain further claims to “maintain an ongoing interest in working with BC maritime agencies to promote best practises and facilitate improvements to ensure safety and efficiency of tanker traffic in the Salish Sea”. Trans Mountain further proclaims to “remain supportive of a collaborative, regional approach to development of mitigation options to reduce risk to marine mammals”. It is unclear what these mitigation options entail, given that they have not been specified. It is further unclear how BC maritime agencies intend to promote best practises and facilitate improvements to ensure safety and efficiency of tanker traffic in the Salish Sea. Trans Mountains proclamations are thus vague and do not provide evidence of any concrete actions with measurable results.

Researchers presenting at the Salish Sea ecosystem conference (Seattle, April 2018) and the Killer Whale Symposium (Vancouver, November 2017) attest that several knowledge gaps exist with respect to understanding the threats to the deteriorating population of SRKW, as well as for understanding mitigation strategies required to overturn the trend of the declining population. Notwithstanding the existing information gaps, science available to date confirms that the SRKW population is predominantly threatened by large vessel traffic, contaminants, lack of prey and climate change.

Trans Mountain states that the company is involved in initiatives to develop better guidelines for reducing underwater noise from large commercial vessels, including the Vancouver Fraser Port Authority’s ECHO program, and the Green Marine voluntary eco program “committed to provide insight on underwater noise generated by shipping and its effects on marine life, along with potential solutions”. Although it is great that Trans Mountain is involved in science and research that seeks to better understand and manage underwater noise, it must be recognized that long term studies are necessary in order to understand the effects of large vessel noise on Cetacean populations. Trans Mountain is also stating that they are involved in initiatives with industry to develop future guidelines for reducing underwater noise from large commercial vessels. It must be highlighted that producing reliable results that inform responsible mitigation measures requires the completion of long term studies. It should be stressed that providing funding and partaking in initiatives attempting to gather the necessary science to inform responsible management is not itself a mitigation measure. It is futile to suggest that a project resulting in a seven time increase of large vessel traffic should be constructed, prior to having the scientifically proven results required for developing responsible mitigation measures.

Scientific finding to date demonstrate that current vessel traffic is having a tremendous negative impacts on the Salish Sea. Engines and propellers from large vessels create underwater noise that disturb the ability of the killer whales to forage and communicate. Research findings presented at the Salish Sea conference (Seattle, April 2018) demonstrate that the negative effects from noise is aggravated with the addition of vessels, since the negative effects are thus extended over a longer time period. Research findings further demonstrate that noise from large vessels result in a 75% reduction in the species ability to communicate, with consequential impacts to the species’ foraging behaviour.

Given the current critical state of the SRKW populations, and given the gaps that exist in knowledge about threats to the population’s survival and how to adequately mitigate these threats; the responsible thing for Trans Mountain to do would be to wait for the completion of research finding that inform scientifically proven mitigation measures, prior to proceeding with the TMX project. Trans Mountains’

method of providing research funding and proceeding with construction before scientifically proven mitigation measures are in place is a haphazard approach that is doomed to exaggerate existing impacts to Cetacean populations in the Salish Sea.

Research to date further shows that SRKW populations are suffering high rates of miscarriage rates and high mortality in both calves and females. Science indicates that starvation due to lack of sufficient prey and high levels of accumulated toxins are contributing factors to the stressors experienced. These impacts can be attributed to direct and indirect effects associated with large vessel traffic, which contribute to contamination, reduction of prey, reduction in foraging opportunities, strikes and greenhouse gas emissions. The responsible action to take is therefore to not proceed with the TMX project until the SRKW population has been allowed to recover to sustainable levels. It is insensible to suggest that a project that supports further reliance on greenhouse gases and that contributes to further large vessel traffic should be constructed, with the idea that contribution to programs that take many years to produce reliable data is going to solve the problems. Large vessel traffic must be reduced and every effort must be made to reduce the reliance on greenhouse gases in order to provide an opportunity for the SRKW to survive. If the TMX project is allowed to proceed, that will effectively mean that the critically endangered SRKW population will have no chance of recovery or long term survival.

Cumulative Impacts

Trans Mountain acknowledges that past and current anthropogenic activities have caused adverse effects on not only SRKW populations, but also salmon populations and a myriad of other species and resources. Lyackson recognizes Trans Mountains' acknowledgement that a multi-party solutions are appropriate to manage existing cumulative impacts. This acknowledgement is however not sufficient to rectify the damaging consequences of the proposed TMX project. It further provides no certainty that cumulative effects will be adequately dealt with.

Lyackson staff attended the "initial information sharing" Ocean Protection Plan (OPP) meeting in Nanaimo on November 1, 2017, as well as the Oceans Protection Plan Pacific South Coast Dialogue Forum in Vancouver on March 20-21, 2018. Lyackson staff are also currently engaged in the OPP planning committee. Based on information shared at OPP sessions to date, it is clear that numerous knowledge gaps exist that will require significant time and resources to inform. There are further significant flaws in the OPP process to date. It is unclear how First Nations will be meaningfully consulted on the various OPP initiatives, how Traditional Environmental Knowledge will be integrated in decisions and how thresholds and bench marks will be established. Lyackson has to date not been provided with the opportunity to be meaningfully engaged in any of the numerous initiatives under the OPP that are of importance to the Nation. Significant time, resources, information, meaningful First Nation's engagement and completed scientific research studies are required before the OPP can provide the protection necessary to prevent impacts associated with the TMX project.

Trans Mountain's argument that vessels associated with the TMX represent a comparatively small proportion of total transportation activity in the Salish Sea is a futile argument. This argument begs the question about who is making the judgement call that adding seven times more tankers to an already severely impacted system is considered to be a small impact, and on what grounds this assessment is made. Recent science demonstrates that current vessel traffic is causing numerous negative impact on

the Salish Sea (Salish Sea conference, Seattle, April 2018, and Killer Whale Symposium, Vancouver November 2017.) From a Right's holder's perspective, Lyackson maintains that today's vessel traffic is already infringing on the Nations' Rights and interests. In addition to safety and efficiency, there are numerous other outstanding issues concerning tanker and large vessel traffic that remain unaddressed ("Lyackson First Nation concerns with large vessels" March 15, 2017) and "Lyackson concerns with Consultation on Anchorages and Large Vessel Traffic" March 1, 2018).

Spill Response

Trans Mountain states that tanker design, construction, maintenance and operating standards have evolved over many years and improvements are reflected in the very low numbers of spills from tankers, especially since the introduction of double hulled tankers that are phasing out single hulled tankers. Although operating standards likely have improved over the years, it is far from sufficient to date to guarantee that no spill will occur in the Salish Sea as a consequence of the TMX project. Double-hulled tanker designs do not address human error, which is responsible for the majority of oil spills worldwide. The suggested statement that very low numbers of spills occur from tankers is highly subjective and debatable. In Lyackson's perspective, any drop of oil that hits the water is unacceptable. There are many smaller spills occurring that never get reported, that further contribute to cumulative effects and pollution of the marine environment. Trans Mountain has demonstrated a poor safety culture to date, with over 69 reported oil spills since 1961, plus more than a dozen leaks of natural gas, jet fuel, diesel, solvents and contaminated water. Since Texas-based Kinder Morgan bought the line in 2005, there have been 13 reported oil spills, totalling 5,628 barrels of crude.

For each tanker spill event that has occurred to date, it has been clearly demonstrated that the present emergency response system is lacking both in notification, resources, timing, capacity and effectiveness. At BC's Spill Management First Nations Engagement in Nanaimo on April 13, 2018, representatives from BC Ministry of Environment and Climate Change Strategy openly proclaimed that there are gaps in their current spill management system and that much work is required to build a functional and reliable system. Adequate geographic response plans in First Nations sensitive areas of importance to First Nations do not exist to date.

Scientists presenting at the Oceans Protection Plan Pacific South Coast Dialogue Forum in Vancouver on March 20-21, 2018, as well as at the Salish Sea Ecosystem conference in Seattle confirmed that the behaviour of bitumen mixed with diluent cannot be cleaned up with certainty in fresh or marine waters. Weather, tides, and site specific features all interact in an unpredictable manner that contribute to high uncertainty and great risk in case of a spill in the marine environment.

Lyackson is at the table with the Indigenous Monitoring Committee- Marine Shipping Sub Group and based on information received to date, has not been reassured that any planned emergency response measures would effectively mitigate catastrophic effects to the marine ecosystem and First Nations' Rights and interests in the case of a spill. Furthermore, no comprehensive system exists to date with the ability to provide First Nations with timely and adequate compensation for impacts to cultural, environmental and economic values as a result of a spill.

Responsibility

Trans Mountain states that tankers are held to strict international standards, and that although Trans Mountain is responsible for ensuring safety of the Westridge Marine Terminal operations, it does not operate the vessels calling at the terminal. Trans Mountain further argues that for these reasons, Trans Mountain is not proposing specific measures to mitigate routine effects of increased marine vessel traffic but rather maintains an ongoing interest in working with BC maritime agencies to promote best practises and facilitate improvements to ensure safety and efficiency of tanker traffic in the Salish Sea.

In Lyackson's perspective, Trans Mountain's position of non-responsibility in what happens to tankers after they leave the terminal reflects an apparent absence of consideration to the full consequences of the project. The articulated position demonstrates a corporative lack of accountability and responsibility. It is unclear how BC maritime agencies are going to promote best practises and facilitate improvements to ensure safety and efficiency of tanker traffic. It is further unclear how First Nations will be meaningfully consulted on these practises.

Process

The NEB process that was followed to assess the project was deeply flawed and skewed towards an approval, where First Nations rights and the environment were neglected in the name of "National interest". Kinder Morgan has not yet fulfilled many of the conditions for issuance of further permits under the project, that now are subject to over 15 different court challenges. Guiding principles of United Nations Declaration of Rights of Indigenous peoples (UNDRIP) were further not meaningfully incorporated in the decision and concerns raised by many First Nations have not been adequately addressed.

The TMX project does not have a social licence to proceed, given that this project supports transportation of a product that is controversial from both an environmental and economic perspective. Extraction of bitumen has devastating effect on northern Alberta's environment and First Nations as it contributes to loss of land, unsustainable use of water, pollution of water, and air emissions. In addition, extraction, processing and consumption of the product contribute to greenhouse gases, which impacts the environments due to rising water levels, acidification, increased temperatures and higher risk of natural catastrophes. In addition, marine shipping of the product contribute to all of the issues discussed in this paper. In order to truly protect First National Rights, the environment and ultimately the wellbeing of all, there is a need to invest in greener and more sustainable options for energy and resource use, rather than supporting reliance on out dated controversial bitumen. The green energy movement is vast and rapidly growing worldwide, being the future not only for a sustainable environment, but also for a sustainable economy. The TMX project lacks commercial viability, given that demand for bitumen mixed with diluent products is decreasing on the international market. Given the large uncertainty in the future of unsustainable energy sources such as oil sands product and given the enormous footprint that this project is having on the environment (from oil sands extraction, to transportation along land and sea, to upgrading and final product use), Lyackson maintains that the Trans Mountain project is in not in the National interest. Lyackson maintains that it is in the National interest to ensure that human are able to coexist in a healthy environment that support social and cultural wellbeing, and a green economy.

References

Hyatt, K. & Godbout, L. (2000). A review of salmon as keystone species and their utility as critical indicators of regional biodiversity and ecosystem integrity. BC Ministry of Environment, 2, 1-520.