

Honourable George Heyman  
Minister of Environment and Climate Change Strategy  
PO Box 9338 Station Provincial Government  
Victoria, BC V8V 0E4

May 8, 2024

Dear Minister Heyman:

As early as this month, the Trans Mountain pipeline expansion project (TMX) – now mechanically complete – is scheduled to begin pumping diluted bitumen (dilbit) to the Westridge Marine Terminal in Burnaby, triggering a minimum seven-fold increase in tanker traffic through Vancouver’s First and Second Narrows and into the Salish Sea.

**However, an essential major safety measure to save lives and protect human health in the event of a tanker spill in Burrard Inlet or the Salish Sea is not operational.** The human health assessment, accepted by the BC Environmental Assessment Office (BC EAO), states that local health authorities will coordinate with other agencies to perform all necessary emergency response tasks, including evacuations. Yet clarification of responsibilities and processes for these life-saving tasks, what resources are required and who has the capacity for the work, has not been established.

Known as BC EAO Condition 38, a human health risk assessment was completed in 2023 by a contractor (Intrinsic) hired by Trans Mountain. It uses oil spill modeling for English Bay. The Assessment *includes assumptions regarding risk estimates that do not follow BC Ministry of Health guidance, which led the health authorities to disagree with conclusions of the risk assessment.* It remains unclear how or if this critical deficiency can be resolved.

According to estimates derived from Transport Canada’s Emergency Response Guidebook, if an Aframax tanker, which can carry 600,000 barrels of dilbit, spilled two-thirds of its load and only 0.5% reached shore, over 25,000 people would require immediate evacuation, while 105,000 would need to evacuate if the highly flammable cargo ignited. Fire- and smoke-related mass casualties would be expected, along with hospitalizations from cardio-respiratory conditions and skin exposures to carcinogens for those who join in clean-up, and contact the spilled diluted bitumen. Damages, including mental health impacts, would be potentially present for years to come.

The plan for this response lies with government actors and other partners, who are not adequately prepared for such an emergency and see a need for enhanced coordination and training. Since there are an average of seven >7 ton oil tanker spills per year, Vancouver needs to be fully prepared. Only last year, an Aframax tanker like those descending upon Burrard Inlet, exploded violently in Malaysia, completely demolishing the deck of the ship. Fortunately, it was empty of its cargo at the time.

The authority for protecting the public from a marine spill in these waters rests with the BC EAO. We, the undersigned, call upon the BC EAO to advise the federal government and the TMX owner, that **no additional Trans Mountain tankers be allowed through the First and Second Narrows in Vancouver until there is a credible plan to protect the health and safety of people in the region from the elevated risk of a Trans Mountain pipeline oil spill.**

## Signatories

### Individual

Michael Hurley, Mayor of Burnaby  
Alison Gu, Burnaby City Councillor  
Joe Keithly, Burnaby City Councillor  
Maita Santiago, Burnaby City Councillor  
Daniel Tetrault, Burnaby City Councillor  
Adriane Carr, Vancouver City Councillor  
Pete Fry, Vancouver City Councillor  
Jessica McIlroy, North Vancouver City Councillor  
Steve Gray, District of Metchosin Councillor

Ruby Campbell, New Westminster City Councillor  
Tasha Henderson, New Westminster City Councillor  
Nadine Nakagawa, New Westminster City Councillor  
Amy Lubik, Port Moody City Councillor  
Haven Lurbiecki, Port Moody City Councillor  
Elizabeth May, MP for Saanich-Gulf Islands  
Gregor Robertson, Mayor of Vancouver 2008-2018  
Dr. David Suzuki, Vancouver Scientist and Broadcaster  
John Vaillant, Vancouver Writer and Journalist

### Organization

Canadian Association of Physicians for the Environment  
Canadian Association of Nurses for the Environment  
Doctors for Planetary Health - West Coast  
Nurses And Doctors for Planetary Health - Victoria  
The Mental Health and Climate Change Alliance  
Union of BC Indian Chiefs  
For Our Kids Burnaby  
For Our Kids North Shore  
For Our Kids Vancouver  
Action on Climate Team (ACT), SFU  
Centre for Climate Justice, UBC

UBC Climate Hub  
BCTF Divest Now  
Nanaimo District Teachers' Association  
Teachers For Future Canada  
Burnaby Green Party  
Green Party of Vancouver  
OneCity Vancouver  
Green Party of Canada  
BC Hydro Ratepayers Association  
Burnaby Mountain Preservation Society  
Burnaby Residents Opposed to Kinder Morgan Expansion (BROKE)

Chase Environmental Action Society  
Climate Emergency Unit  
Climate Justice Victoria  
Council of Canadians - Le Conseil des Canadiens  
Council of Canadians - Mid-Island Nanaimo Chapter  
Creatively United for the Planet  
David Suzuki Foundation  
Dogwood  
Esquimalt Climate Organizers (ECO)  
First Things First Okanagan  
Friends of the Earth Canada  
Force of Nature Alliance  
Georgia Strait Alliance  
Green Roof Infrastructure Network of BC (GRIN)  
Green Technology Education Centre (GTEC)  
Leadnow  
Living Oceans Society  
Metchosin Climate Action Team  
Mountain Protectors  
Oak Bay Climate Force  
Ocean Park Beautification Committee  
Okanagan Climate Hub  
Parents 4 Climate Victoria  
PIPE-UP Network

Protect the Planet  
Remembrance Pictures Inc.  
Saanich Eco Advocates  
Shake Up The Establishment  
Shift: Action for Pension Wealth and Planet Health  
Sierra Club BC  
South Island Climate Action Network (SI-CAN)  
Stand.Earth  
Sue Big Oil - Comox Valley Team  
The Nulla Project  
350 Canada  
Transition Salt Spring  
Tree of Life Nature Preschool  
View Royal Climate Coalition  
Vancouver Ecosocialists  
Vancouver Island West Teachers' Union (VIWTU) #84  
West Coast Climate Action Network  
Wilderness Committee  
Women's International League for Peace & Freedom (WILPF) Canada  
Youth Stop TMX  
Friends of the Earth U.S.  
Friends of the San Juans, U.S.  
Natural Resources Defense Council, U.S.

cc: Honourable David Eby, Premier of British Columbia  
Honourable Adrian Dix, BC Minister of Health  
Honourable Bowinn Ma, BC Minister of Emergency Management and Climate Readiness  
Chief Wayne Sparrow (Musqueam Nation Elected Council)  
Chairman Khelsilem (Squamish Nation Elected Council)  
Chief Jennifer Thomas (Tsleil-Waututh Nation Elected Council)  
Chairman George V. Harvie (Metro Vancouver Board)  
President Kevin Gardner (Western Marine Emergency Response Corporation)  
Canada Energy Regulator

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## **Background**

In April of 2018 the Health Officers Council of BC passed a resolution requesting that the Province fund an independent, cumulative health impacts assessment for TMX. They did not feel that the original human health risk assessment was adequate. The Province did not follow through on the Health Officers' request.

In August of 2018, the Federal Appeals Court quashed the project's original approval, stating that the regulatory review was "impermissibly flawed" because it did not assess the increased risk to the marine environment from tanker traffic and failed to adequately consult Indigenous peoples. This ruling enabled the BC Environmental Assessment Office to require a human health risk assessment (HHRA) of a major spill in a populated area among 38 other conditions.

The second HHRA focused on a spill in English Bay was completed in October of 2023. This assessment identifies the many different jurisdictions and organizations that would need to be coordinated for a spill response, including Canadian Coast Guard, Environment and Climate Change Canada, Department of Fisheries and Oceans, Health Canada, BC Ministry of Health, First Nations Health Authority, Health Emergency Management. BC, Fraser and Vancouver Coastal Health, local governments, Metro Vancouver Regional District, and West Coast Marine Response Corporation. To date they have met together once as a group for a joint exercise for a hypothetical dilbit spill, in January of 2024, but have not planned for a spill of this magnitude in Burrard Inlet.

The HHRA refers to evacuation of people who live in the area, but leaves it to "the appropriate authorities" to notify the public and evacuate people if public health and safety is threatened. The HHRA also notes that "A shelter-in-place notice could be issued as an interim measure, if warranted, to reduce exposure to chemical vapours in the short-term." This comment is contrary to Health Canada Guidance for the Environmental Public Health Management of Crude Oil Incidents, which recommends immediate evacuation as described below.

There are many other sanguine comments about human health impacts in the HHRA that diminish the actual risk. For example the document states, "Taken together, the above information indicates that people onshore would not be expected to experience health effects other than mild, transient sensory and/or non-sensory effects from the inhalation of the COPC [contaminant of potential concern] vapours released from the surface of the oil slick during the early stages of the spill. Examples of these effects are discomfort, irritability, mild irritation of the eyes, nose and/or throat, mild cough, and symptoms consistent with nominal CNS involvement such as mild headache, lightheadedness, minor vertigo, dizziness, and/or nausea."

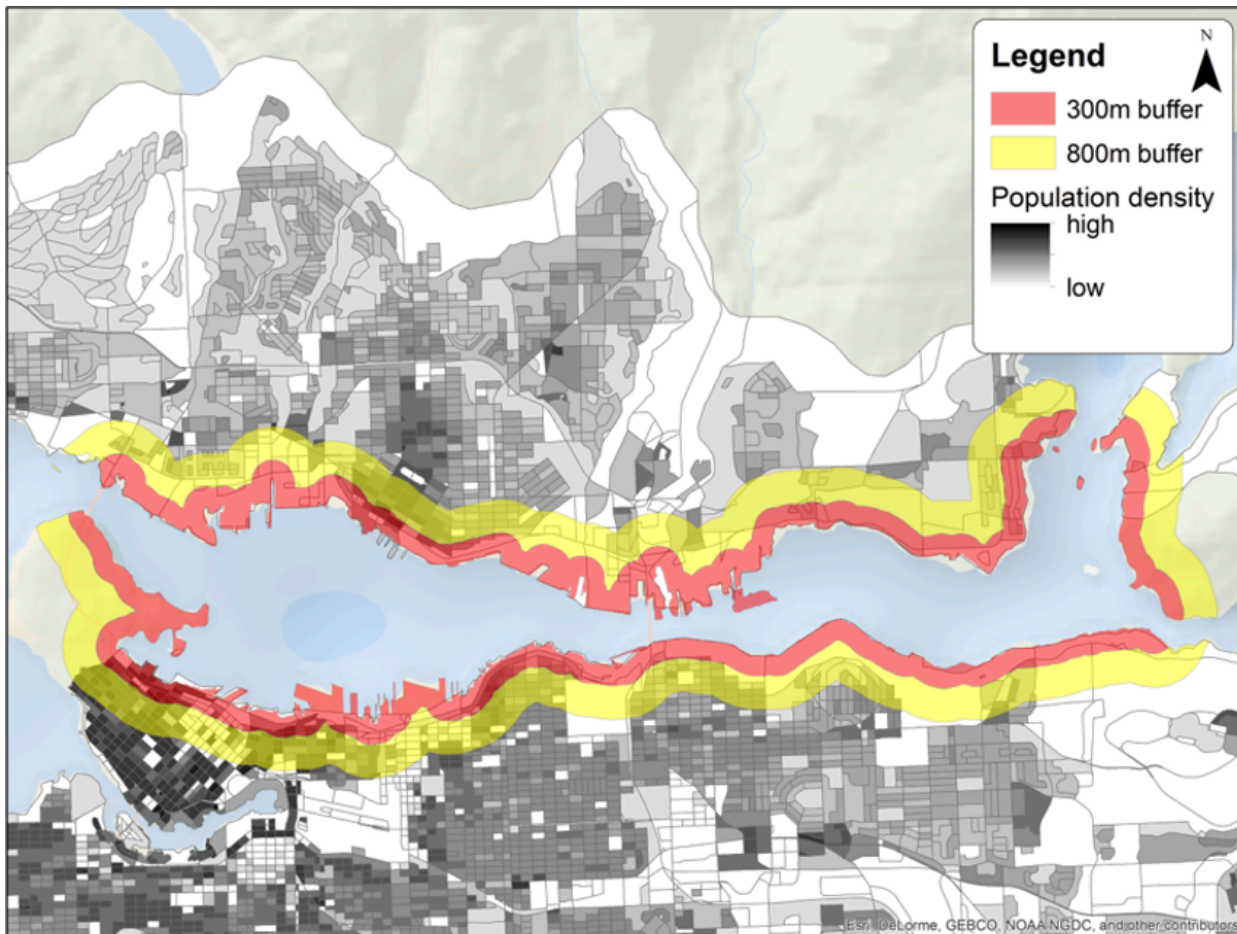
This description ignores the significant adverse responses that could be expected in individuals with pre-existing illnesses such as asthma and chronic obstructive pulmonary disease, cardiovascular disease or diabetes, and young children, who are particularly vulnerable to expected exposures. Damages, including mental health impacts and increased cancer risk would be potentially present for years to come.

## **Major Human Health Impacts of the Increase in Tanker Traffic (Dec\_5\_2018)**

The following information comes from a report submitted to Canada Energy Regulator (CER) in December 2018. This includes a rough assessment of the population that would be impacted by a large spill of approximately 500,000 barrels or 67% of an Aframax tanker filled to capacity within Burrard Inlet.

[https://docs2.cer-rec.gc.ca/ll-eng/llisapi.dll/fetch/2000/90464/90552/548311/956726/2392873/3614457/3615225/3634705/3718306/A96413-10 Takaro Appendix A - Major Human Health Impacts of the Increase in Tanker Traffic \(Dec\\_5\\_2018\) - A6L5G1.pdf?nodeid=3718220&vernum=-2](https://docs2.cer-rec.gc.ca/ll-eng/llisapi.dll/fetch/2000/90464/90552/548311/956726/2392873/3614457/3615225/3634705/3718306/A96413-10 Takaro Appendix A - Major Human Health Impacts of the Increase in Tanker Traffic (Dec_5_2018) - A6L5G1.pdf?nodeid=3718220&vernum=-2)

If only one half of one percent reached shore, this would equal 2500 barrels distributed along the populated shoreline of Burnaby, Vancouver and North Vancouver. Over 24,587 people live within 300 meters of the shoreline (i.e. the red region) and would therefore be required to immediately evacuate according to Health Canada Guidance for the Environmental Public Health Management of Crude Oil Incidents (Health Canada, 2018). In the event of a fire, approximately 105,515 people living within 800 meters of the shoreline (i.e. the yellow and red bands combined) would be immediately affected (see figure below).



(Data source: Statistics Canada)

## **Human Health Risk Assessment by Intrinsic for BC EAO Condition 38**

Following re-approval by the CER, Trans Mountain was required to provide a Human Health Risk Assessment. The report uses stochastic and deterministic oil spill modelling for a spill in English Bay. This modeling is based on a scenario of a laden tanker releasing 16,500m<sup>3</sup> of cargo, which represents the equivalent of two tanker cargo holds, in English Bay over 13 hours. The modelling evaluates unmitigated dispersion of crude oil (Cold Lake Winter Blend) through the air, water column and shorelines to inform ecological assessment that will determine human health risk based on the potential pathways of effects and demographics involved.

What is presented in the HHRA as the necessary emergency response to protect human health and the environment shows many gaps and unanswered questions, particularly about what organization will be responsible to protect human health and the environment and how the response will be coordinated.

## **News report of recent (2023) catastrophic accident with an Aframax tanker of the type used to ship dilbit from Westridge Marine terminal.**

While a spill in Burrard Inlet would be considered a rare event, it is one with potentially catastrophic consequences.

Aframax explosion - <https://splash247.com/deck-blasted-into-air-in-afamax-explosion/>