

## PenderPod.ca



PenderPod is a community organization on Pender Island dedicated to honoring, protecting and defending the Natural Environment of our Salish Sea

We recommend that the Roberts Bank Terminal 2 project be rejected on the grounds of Human Health, threats to species at risk including the Southern Resident Killer Whales, and the impact this project will have on the culture and food security of First Nations.

It is imperative that the review panel consider the impacts of potential spills and crashes not only in the proposed expanded terminal, but also the environmental impacts of increased tanker traffic along the entirety of the shipping route through the Salish Sea. For this assessment to be credible it must include independent scientific reports including the full report by the ECCC scientists.

Human Health: Peter Pare

Species at Risk: Lisa Baile

Southern Resident Killer Whales: Monica Petrie

First Nations Culture: Mary Anne Pare

First Nations Food Security: John Allan

Flawed Process: Gregory Nicholls

Human Health

Dr. Peter Pare Peter Pare, MD

Emeritus Professor of Respiratory Medicine, UBC

I am writing to recommend that the Roberts Bank Terminal 2 project be rejected.

I am a medical doctor and lung specialist as well as a respiratory researcher at the University of British Columbia and my expertise includes the study of the adverse health effects of gaseous and particulate air pollution. I am a long time resident of British Columbia and presently reside on Pender Island one of the Southern Gulf Islands which is situated in a unique marine environment called the Salish Sea (aka the Strait of Georgia). Thus I feel I have some pertinent expertise and am personally involved in the decision making regarding this expansion since it affects me and my wife, my children & grandchildren and my property.

The formerly pristine environment of Fraser River Estuary and of the Salish Sea has already been adversely affected by marine traffic using the Strait of Juan de Fuca and channels between the Gulf Islands. These effects are related to the effluent from the tankers that is dumped into the ocean and the considerable contribution to air pollution from the engines of freighters and tankers. The expanded marine traffic that the Roberts Bank Terminal expansion will enable will increase these sources of environmental degradation, decrease the quality of life of myself, my family and my fellow citizens and threaten the health of all humans living on the Salish Sea. The negative impact on the myriad of non-human creatures ranging from micro-organisms to Southern Resident Killer Whales will be orders of magnitude larger.

Thus in addition to the direct effect of toxic emissions on human health the damage to the Biosystems of the Salish Sea on which we depend for clean air and water will be irreparably damaged.

Particulate air pollution is now ranked as one of the 10 top threats to human health. There is compelling evidence that air pollution contributes to increased cardiovascular and respiratory mortality in North American cities (1).

With the increasingly strict emission regulations of land-based sources the contribution of ship emissions to air pollution has tended to increase (2). Emissions from ships are recognized as an important source of air pollution accounting for 2.7%, 15%, and 9% of the global anthropogenic CO<sub>2</sub>, NO<sub>2</sub>,

and SO<sub>2</sub> emissions, respectively (3). Ship emissions exhibit a large direct negative impact on regional air quality, global climate and human health (4). Recent studies from the University of British Columbia show that exposure to particulate air pollution increases the risk for development of asthma in Vancouver children (5). There is also solid evidence that emissions from ships represent a substantial contributor to air pollution in and around ports such as Vancouver (6).

The Friends of the San Juan's, in their excellent submission, have provided a detailed study of the present and projected increase in gaseous and particulate air pollution that would result from the expansion. There is incontrovertible evidence that the projected increased levels of NO<sub>2</sub>, SO<sub>4</sub> and PM 2.5 particulates would result in a significant increase in premature death in communities around the Salish Sea.

I strongly believe that the risk entailed by increased tanker traffic outweighs the potential benefits for British Columbians and Canadians.

1. Daniel Mueller, Stefanie Uibel, Masaya Takemura, Doris Klingelhofer, David A Groneberg. Ships, ports and particulate air pollution - an analysis of recent studies. *J Occup Med Toxicol.* 2011; 6: 31.
2. Lu, G. et al. 2006. Identification and characterization of inlandship plumes over Vancouver, BC. *Atmos. Environ.* 40, 2767
3. Song, S., 2014. Ship emissions inventory, social cost and eco-efficiency in Shanghai

Yangshan port. *Atmos. Environ.* 82, 288.

4. [Jingbo Z et al.](#) Characterization of PM<sub>2.5</sub>-bound polycyclic aromatic hydrocarbons and their derivatives (nitro- and oxy-PAHs) emissions from two ship engines under different operating conditions. *Chemosphere.* 2019 Jun;225:43-52
5. MacIntyre EA, Brauer M, Melén E, Bauer CP, Bauer M, Berdel D, Bergström A, Brunekreef B, Chan-Yeung M, Klümper C, Fuertes E, Gehring U, Gref A, Heinrich J, Herbarth O, Kerkhof M, Koppelman GH, Kozyrskyj AL, Pershagen G, Postma DS, Thiering E, Tiesler CM, Carlsten C; TAG Study Group. GSTP1 and TNF Gene variants and associations between air pollution and incident childhood asthma: the

traffic, asthma and genetics (TAG) study. Environ Health Perspect. 2014 Apr;122(4):418-24.

6. Dockery DW. Health effects of particulate air pollution. Ann Epidemiol. 2009 Apr;19(4):257-63

### Threats to Species at Risk

Lisa Baile, MSc

Scientist [Retired]

Wood carver, author

Environmentalist and Climate Activist

Founder of the Wilderness Education Program

Creator of the Lisa Baile Nature Reserve

As a nursery and feeding ground, the Fraser River Estuary connects a vast food web linking fish, birds and marine mammals across thousands of kilometres of the North Pacific Ocean. It is the rearing grounds for Canada's largest runs of Pacific salmon. For birds, the estuary is globally significant and serves as a crucial stopover on migration routes stretching from South America to the high Arctic.

Any further expansion of the Roberts Bank terminal will have devastating and significant cumulative effects on already threatened Chinook salmon populations, from the Lower Fraser and South Thompson watershed, and on the endangered Southern Resident killer whales due to the destruction of their legally protected critical habitat, reduced prey availability and an increase in underwater noise.

### Southern Resident Killer Whales

Monica Petrie

Environmentalist and Climate Activist

Advocate for Whales

Retired Teacher, Early Learning and Child Care

Pender Island co-ordinator for Southern Gulf Islands Whale Sighting Network

Citizen Scientist

In addition to the Review Panel conclusion that the Terminal 2 Expansion would have significant adverse and accumulative effects on migrating Fraser River Chinook due to changes in water conditions and habitat loss, I would add the negative effect on the work done in recent years to restore out-migrating fry access to the estuary marsh where they can adjust to the salinity of the ocean. Any further barriers to in-migrating salmon would reduce their numbers even more drastically.

The federal government has put multi-year efforts into mitigating conditions such as prey availability and underwater noise for Endangered Southern Resident Killer Whales who depend on the superior nutrition of Chinook to survive.

The Southern Resident Orcas must be seen as stakeholders in terms of considering the negative impacts of increased shipping on their critical habitat. The increased risks of ship strikes, fuel leaks and spills, toxic chemicals, surface air pollution and underwater noise, which interrupts foraging and communication, strike against the SRKWs ability to survive and thrive, and are unacceptable.

The risk of ship strikes extends to an increasing number of Humpback Whale mother and calf pairs (21 calves were reported to be born in the Salish Sea in 2021) feeding and travelling in the shipping lanes through the Southern Gulf Islands.

Canada has recognized the Right to a Healthy Environment for our citizens - clean air, clean water and clean soil. Our health and our food security would be compromised by the Terminal 2 expansion. We cannot afford to lose any agricultural land where food can be grown locally, or to deplete traditional foods and medicines of Indigenous Peoples of the area, including salmon and shellfish.

An increase in green house gasses due to construction of the terminal, more coal and potash for export, and more ships powered by fossil fuels, would accelerate the climate crisis. Recent fires, floods, and storms causing landslides, riverbank and shoreline erosion have shown us what we risk to our own homes and livelihoods. Restoration of wetlands and healthy habitat for birds, salmon, whales and people must be a priority for

the Fraser Delta, not further industrialization and its adverse and accumulative risks to all.

## Protection of First Nations Culture

Mary Anne Pare

Environmental Activist

Spoken Word writer and performer

The Federal Review Panel has identified that there would be 'significant cultural landscape and identity impact' on local First Nations which include the Tsawwassen and Tsleil-Waututh nations. It reports that 'residual adverse effects of the proposed expanded Navigational Closure Area during both construction and operations would combine with the adverse effects of the existing Navigation Closure Area and cause a significant cumulative effect on the Area I commercial crab fishery.' Ship movement would access sites where First Nations conduct cultural activities and practices. Given that 177 hectares of inter-tidal and sub-tidal habitat will be infringed upon by the proposed project, the impact statement of the Tsawwassen community points out that there are existing 'significant intangible cumulative effects on their cultural heritage' from the present day development of Roberts Bank and further impacts inevitable from the RBT2 proposal.

55% of Tsawwassen First Nation are 29 years and younger, 21% of young males are in the fishing and crabbing industry. One half of the community relies on ocean harvesting for employment. One half of the community relies on the Food Bank. New jobs related to the RBT2 would be poor compensation for the traditional marine harvesting that the First Nations people have practiced. This places the community in the conflictual dilemma that colonization has always presented Indigenous peoples: protection of culture and environment at the risk of underemployment and poverty. Tsawwassen and Tsleil-Waututh youth have careers in ocean stewardship, fishing and crabbing. These practises are a primary way that language and cultural beliefs are passed on intergenerationally. Language preservation may be one of the "intangible" aspects of cultural heritage. However language is at the heart of culture and is a critically important

aspect of healing and rejuvenation. Eliminating these traditional jobs for youth sabotages their ability to learn and practice their culture

The Liberal government has made a commitment to respect UNDRIP and passed the Indigenous Languages act Bill C-91 in 2019, which has established a Commissioner of Indigenous Languages and which provides long-term sustainable funding in order to preserve, promote, and revitalize Indigenous languages in Canada. The Liberal Party's election platform promised that First Nations communities will directly benefit from major resource projects in their territories. The Federal Review Panel commented that Tsawwassen Nations are likely to benefit from the employment, training and contracting opportunities provided by RBT2. This misses the critical issue. Providing new jobs for the Tsawwassen Nation necessitates destroying traditional jobs that are tied to identity, food security, language acquisition and other cultural practices. Roberts Bank Terminal 2 project epitomizes the practice of giving with one hand and taking away with the other.

The Federal Review Panel identifies that the nations likely to be impacted include the Tsawwassen, Musqueam, Tsleil Waututh, Pacheedaht and Dididaht. The traditional relationships that First Nations have with the ocean and its environment are embedded in their spiritual and world view beliefs. Damaging the territory where these practices take place is a direct assault on the Indigenous way of life. It is therefore also an assault on the Reconciliation process and utterly contrary to the promises our government has made.

For these reasons the Roberts Bank Terminal 2 project should be terminated.

Food Security for the Tsawwassen First Nations

John Allan, PhD

Professor Emeritus, Faculty of Education, UBC.

Environmental Activist

I strongly opposed the RBT2 Project on many grounds but specifically regarding its effects on food security for the Tsawwassen First Nations.

TFN have lived and survived off the sea and land in their territories for over 4,000 years..RBT2 will inflict irreparable damage to their already fragile fishing and harvesting grounds. More ship traffic and infrastructures will negatively impact salmon runs and pollution will effect the habitats of crabs

and shellfish. Shipping lanes will impede FN boats and reduce access to preferred harvesting sites. The waves and wakes will result in loss of crab traps causing safety risks, financial worries as well as eroding and destroying sensitive ecosystems.

RBT2 will reduce the area of harvest due to marine lane closures. This will result in more competition among fishers and reduced returns.

Industrial development has already forced the closure of harvesting shell fish in the Burrard Inlet since 1976 hence destroying one area of food security and depriving FN youth the opportunity to harvest and learn from their Elders. Harvesting with Elders was one main vehicle for the cultural transmission of language and history.

Clearly RBT2 will severely negatively effect the ability of TFN to have enough food to maintain their traditional ways of survival. They will no longer be able to say: “ When the tide is out, the table is set”.

Flawed Process

Gregory Nicholls

Retired College Instructor

Environment Activist

The Roberts Bank Terminal 2 assessment process is flawed.

Environment Canada was required to produce a submission on the environmental impact of the proposed Roberts Bank project. They concluded that the project would pose a serious risk to the western sandpiper and other shorebirds. However, the final submission detailing their findings was withheld from the Environmental Assessment Review Panel.

The organization Against Port Expansion, through the Freedom of Information ACT, was eventually able to get a copy of the submission and make it public.

On Tuesday Feb 1st, NDP MPs called on the minister, [Steven Guilbeault](#) of ECCC to rectify the muzzling of its own scientists' findings on the proposed terminal 2 Roberts Bank project.



3 New Democratic Party MPs, Richard Cannings, Laurel Collins & Bonita Zarrillo said that senior liberal government officials had heavily redacted and even omitted information about significant adverse environmental impacts from both public and first nations consultation processes. These findings reinforced concerns that the project will cause immediate, irreversible effects to local wild life and eco systems

Richard Cannings

“What we are seeing is the warnings of scientists being silenced along with the internal suppression of evidence. We’re back to the Harper-Era of silencing scientists for the favourable portrayal of a project”

PenderPod supports the request of the New Democrats for the Liberal government to share the full evidence and warnings of ECCC scientists publicly as well as at least a month’s extension of the public comment period, and an independent expert review of the research prior to any final decision on the project.



