

Our Body of Scientific Evidence Against Trans Mountain

Written by Joan Russow

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On May 27th, Raincoast Conservation Foundation filed four submissions to Canada's National Energy Board (NEB) regarding the impacts that Kinder Morgan's proposed Trans Mountain tar sands pipeline and oil tanker expansion will have on wildlife. Our evidence encompasses four major areas: a Population Viability Analysis of Southern Resident Killer Whales; acoustic disturbance from vessel traffic on Southern Resident Killer Whales; the risk from oil spills to Wild Salmon of the Fraser River and Salish Sea; and the risk from oil spills to Pacific herring and other forage fish of the Salish Sea. Ecojustice is providing Raincoast's legal representation at the NEB review of Trans Mountain, and will be presenting our aforementioned evidence, which consists of some 500 pages. In stark contrast, according to the NEB's most recent update, the Province of British Columbia has submitted no written evidence.

Southern Resident Killer Whales: Population Viability Analysis

Southern Resident Killer Whales are iconic of our North Pacific coastal waters and listed as endangered under Canada's Species at Risk Act. Several factors hinder their recovery and survival, primarily reduced availability of Chinook salmon, increased noise and disturbance from boats and ships, and exposure to pollution. Trans Mountain's tanker route through the Salish Sea transects critical habitat that is necessary for the survival and recovery of these whales.

Our submission describes a Population Viability Analysis (PVA) conducted with leading scientists studying killer whales, acoustics, and population modelling. A PVA can assess risks to wildlife populations and evaluate the likely effectiveness of recovery options. Our PVA assessed

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the viability of the Southern Residents in light of cumulative disturbances and threats, including increased ocean noise resulting from additional vessel traffic and oil spills from oil tankers associated with the Trans Mountain expansion. Raincoast's PVA also examined the role of Chinook salmon abundance and contaminants. Southern Resident Killer Whales have experienced almost no population growth over the past four decades, and has declined in the last two decades. Our analysis shows that the Trans Mountain project will intensify existing threats to the Southern Residents, accelerating their rate of decline, and possibly leading to their complete extinction.

Southern Resident Killer Whales: Acoustic disturbance from vessel traffic

This submission describes the importance of sound and the concern that these whales will be subjected to increased noise disturbances. Sound is as important to whales as vision is to humans. Southern Resident Killer Whales produce and listen to sounds in order to establish and maintain critical life functions and behaviours. These include navigating, finding and selecting mates, maintaining their social network, and locating and capturing prey (especially Chinook salmon). Noise is named as one of the key threats hindering their recovery, along with reduced availability of Chinook salmon. The Trans Mountain project will increase noise levels, which will have adverse affects to Southern Resident Killer Whales.

Wild Salmon of the Fraser River and Salish Sea: The risk from oil spills

This submission examines the potential consequences to Fraser River salmon populations from exposure to oil spilled from a pipeline rupture in the Lower Fraser River or from an oil tanker spill in the waters of Georgia Strait. The Lower Fraser, its tributaries, and its estuary are used by 42 fish species (9 are salmonids) throughout the year for incubating eggs and embryos, as juveniles for rearing and overwintering, and as adults for migration and spawning. For salmon, the Lower Fraser River acts as a bottleneck through which the entire diversity of Fraser River salmon populations must pass twice during their lifetime. There is no safe time of the year when the impacts of a spill would be low. A spill during peak migration of important or at risk salmon runs could have devastating consequences for both salmon, and the people and wildlife who are culturally, economically, or ecologically dependent upon them.

Forage fish of the Salish Sea: the risk from oil tankers

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This submission examines the potential impacts from the Trans Mountain project on forage fishes (in particular Pacific herring.) Forage fishes are crucial components of coastal marine ecosystems. Situated in the mid-trophic levels, they represent a vital link between the bottom and the top of the marine foodweb. Trans Mountain's application failed to address the risk, and expected harm, to herring and forage fish on numerous levels.

The recent English Bay spill in Vancouver and the current oil spill disaster in Santa Barbara, California have given a heightened sense of urgency to Raincoast's 500 hundred pages of scientific evidence on the threats Trans Mountain poses to the Salish Sea and its wildlife. We can only hope the NEB is shaken out of its seeming complacency by our compelling body of evidence, as well as by the aforementioned recent events that should serve as a harbinger to what is almost certain to unfold if Trans Mountain is approved.

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