



SAVE THE SALISH SEA



TURNING THE TIDE ON FOSSIL FUEL EXPANSION



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The Salish Sea, the body of water comprising of the Strait of Georgia, Puget Sound and the Juan de Fuca Strait, is a precious resource that has sustained life in the Pacific Northwest region for thousands of years. From the millions of salmon that migrate through its waters, to the temperate rainforests lining its shores, to the power and grace of its resident killer whales, this remarkable stretch of ocean provides endless gifts.

The Salish Sea's mild climate and abundant resources make it an ideal place to live, and it has always been home to proud and diverse Indigenous nations. For the same reasons, settlers travelled here in great numbers, and the Salish Sea region is now one of the most densely populated areas in western Canada. A key strength of the region is the inherent ease of transportation that's

possible given its geographic and maritime position. But as governments increasingly prioritize fossil fuels above all else here in British Columbia, this status as an ideal transport corridor has become a big problem for the Salish Sea.

Several fossil fuel export projects proposed in the Salish Sea pose serious threats – whether it's in the form of a catastrophic tanker accident, or through contributions to irreversible climate change, these projects would impact this incredible region forever.

Pipeline giant *Kinder Morgan* hopes to triple oil shipments through its Trans Mountain Pipeline and marine terminal in Burnaby, to transport close to 900,000 barrels of diluted bitumen per day. This translates to a huge increase in tar sands tanker traffic in the busy Salish Sea, from around 80 to over 400 tankers per year.¹

At the same time, *Port Metro Vancouver* is considering significant increases in the amount of coal shipped from its facilities and through the Salish Sea. If the industry gets its way, we'll see hundreds of new coal trains, barges and ships in the region every year. With this expanded export capacity, the total carbon dioxide (CO₂) emissions from coal

shipped through Port Metro Vancouver would rise to almost 125 million tonnes – a major contribution to climate change.²

Cumulatively, these proposals are much more than just risky infrastructure plans – they represent a dramatic regional shift: the transformation of the Salish Sea into a global carbon corridor. Green initiatives undertaken at the municipal or regional level will essentially be nullified by the fact that they all exist within a highway to climate change.

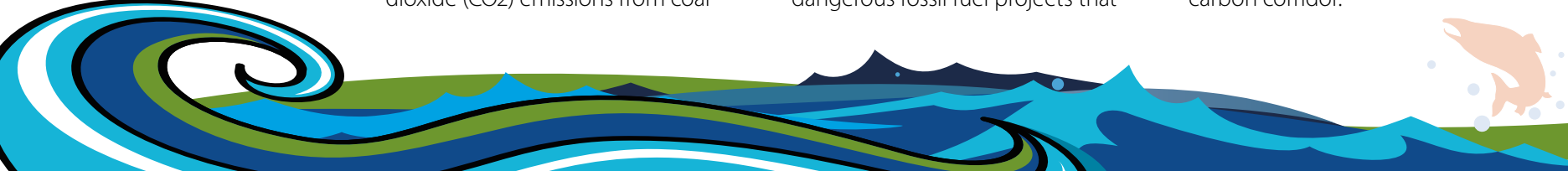
Despite the threats it faces, we see the Salish Sea as a place full of hope. We believe people who live here want to find solutions to the climate crisis and work toward more sustainable ways to operate our economies. **If we work together, the Salish Sea will become the place where we stood up and took responsibility for climate change.**

Read this report to learn more about the Salish Sea, its cultural and environmental significance, and the dangerous fossil fuel projects that



Photo top: Salish Sea canoe gathering (Michael Wheatley), **above:** Humpback whale (John E. Marriott), Salish Sea canoe gathering (Michael Wheatley).

are knocking at its door – and find out how you can help prevent this amazing region from becoming a carbon corridor.



HOW DO FOSSIL FUEL EXPORTS AFFECT THE SALISH SEA?

With or without a spill, increased shipping activity can take a serious toll on marine ecosystems, wildlife and communities along the coast. When the products being shipped are fossil fuels like coal, oil and gas, the impacts are amplified because burning these fuels contributes greatly to global climate change.

Impacts on key wildlife species

Increasing tanker traffic will disturb the Salish Sea's revered orca (killer) whales – not even proponents of fossil fuel export proposals can argue with this fact.³ The region's resident orcas were designated as "endangered" in 2001, and that status was reaffirmed in 2008.⁴

One major threat these whales face within their critical habitat is human-generated noise pollution – something coal ships and oil tankers dramatically increase. Underwater noise makes it extremely difficult for orcas to detect prey and communicate with each other, both of which are key to their survival. Government agencies in Canada and the U.S. have identified activities like industrial shipping as serious threats to orcas.⁵ There simply isn't room in the Salish Sea for healthy orca populations and hundreds of new tankers.

TURNING OUR OCEANS INTO SODA POP

Ocean acidification is the process through which oceans and seas absorb carbon dioxide from the atmosphere, and it is increasing as a result of climate change. Since the beginning of the Industrial Revolution, when we started burning fossil fuels on a large scale, our oceans have become 30 per cent more acidic. This acid is a lower dose of the same substance that makes our soda fizzy, and it prevents species such as oysters, scallops, urchins and crabs from being able to build shells and skeletons.⁶



Threat to salmon: The lifeblood of the coast

From start to finish, proposed fossil fuel projects pose a grave threat to the most ecologically, economically and culturally important species in the Salish Sea. Legendary runs of wild salmon have supported complex food chains and human communities in this region for millennia.

These salmon spawn in rivers and streams that flow into the Salish Sea – including the Fraser River, the largest salmon river in Canada. These vital waterways could soon be crossed by more pipelines and coal trains than ever before. A single accident, either in sensitive spawning areas or marine migration corridors, would devastate the salmon runs and the ecosystems, economies and cultures that rely on them.



Photo: Harbour seal on the BC coast (John E. Marriott).



Photo: Sockeye salmon (Dale Sanders).



Photo: Southern resident killer whales swimming by the port in Metro Vancouver (Isabelle Groc).

KINDER MORGAN'S PIPELINE AND TANKER PROPOSAL

Kinder Morgan is touting its proposed Trans Mountain Pipeline project as an "expansion" of existing infrastructure. The company has avoided describing the project as what it really is: a brand new pipeline (with capacity greater than the proposed Enbridge Northern Gateway Pipeline) that will cross hundreds of rivers and streams, as well as First Nations territories, parks, wetlands and neighbourhoods before terminating in Burnaby, BC.⁷ It will supply an unprecedented number of oil tankers in the Burrard Inlet, which will then navigate the islands and crowded waterways of the Salish Sea, passing alongside large coastal cities like Vancouver and Victoria en route to international markets.

A BIT OF HISTORY...

Oil tankers first entered the Salish Sea in 1908, although they were much smaller and carried far less oil than modern tankers. In 1953, the Trans Mountain Pipeline was built to supply three refineries with conventional oil, which in turn would supply domestic and foreign energy needs. In 2005, Houston-based pipeline company Kinder Morgan purchased the Trans Mountain Pipeline, decided that providing oil for domestic use should no longer be a priority and began exporting more and more diluted bitumen from the tar sands via tanker.⁸

This drastic jump in tanker traffic would greatly increase the likelihood of an accident. The federal government, while boasting of "world class" oil spill response systems, has gutted essential response services – even closing Vancouver's Coast Guard base in 2013. What's more, diluted bitumen is different than conventional oil, and experts are unsure how it would react if spilled in the marine environment. Recent studies have shown that it's likely to sink when battered by ocean waves, making it far more difficult to clean up.⁹

The fact is, we're not prepared for a major spill event, and just one large spill would have devastating environmental and economic consequences.

On land, the existing pipeline has a history of spills and leaks, including four separate incidents in 2012 and 2013 alone. The most serious event occurred in 2007, when a Burnaby construction crew inadvertently hit the unmarked pipeline with an excavator. Almost 250,000



Photo: Oil tankers near Vancouver (Creative commons).

litres (about 1500 barrels) of oil shot out of the ground, soaking a residential neighbourhood and seeping into Burrard Inlet. At least 50 homes had to be evacuated.¹⁰

In addition to spill risks, we have an even deeper responsibility to stop the Kinder Morgan pipeline because of its impact on climate change. A new pipeline along the Trans Mountain route will fuel tar sands expansion in northern Alberta, supporting an industry that will continue to pump CO2 into the atmosphere for decades.

As the fights against other pipelines like Keystone XL and Northern Gateway reach a fever pitch, the tar sands industry desperately needs doors through which to move its product. **The Salish Sea is a door to climate change that we can slam shut.**

TAR SANDS OIL: THE DIRTIEST ON THE PLANET

Tar sands, or bituminous sands, is a sticky, tar-like substance from which **bitumen** can be extracted. The extraction process uses huge amounts of land, water and energy, and is more energy intensive than other forms of oil production. Once extracted, the bitumen is still too thick to move through pipelines, and must be mixed with a "diluent" – a blend of hydrocarbons such as natural gas and hazardous chemicals. The mixture, **diluted bitumen or dilbit**, is what companies like Kinder Morgan want to pump to the west coast and load onto tankers.¹¹

Tar sands extraction has created a huge environmental footprint in northern Alberta, and operations there are linked to serious human health and water quality impacts – not to mention the destruction of valuable boreal forest. Plus, scientific studies have proven that dilbit is more difficult to contain and clean up in the event of spill – a single accident along pipeline or tanker routes in BC could devastate surrounding ecosystems and economies for decades.



Photo: Alberta tar sands (Garth Lenz).

CONFRONTING COAL EXPORTS IN METRO VANCOUVER

Burning coal for power is the dirtiest form of energy on Earth – any conversation about combating climate change simply must include a strategy to end coal-fired power. The governments of Vancouver and BC talk about the importance of clean energy, but **the province's largest port, Port Metro Vancouver, has been quietly working to increase its export capacity and become the largest coal exporter in North America.**

Metro Vancouver is already home to one of the continent's busiest coal shipping facilities: the Westshore Terminal in Delta, BC now has the capacity to transport a whopping 33 million tonnes per year.¹² Port Metro Vancouver also recently approved a plan from North Vancouver's Neptune Terminal, to double its annual capacity from 8.5 to 18.5 million tonnes.¹³



Photo: Neptune terminal (Daniel J. Pierce).

Another key component of the region's coal plans is the construction of a new facility at the Fraser Surrey Docks, specifically intended to handle dirty thermal coal from the United States. From here, barges would carry eight million tonnes of uncovered coal annually to Texada Island, where it would be loaded onto freighters and shipped overseas.¹⁴

Further south in the Salish Sea, folks in Washington State are fighting the proposed Gateway Pacific Terminal at Cherry Point – a project with an annual coal export capacity of 48 million tonnes.

If these two port proposals are approved, the CO2 emissions from burning coal that was shipped through the Salish Sea will increase by about 113 million tonnes per year.¹⁵ To put that in perspective, this is equivalent to just over seven years' worth of emissions from

every vehicle on the road in BC.

These coal port proposals are opposed by local Indigenous peoples, concerned citizens, municipal governments, health experts and environmentalists on both sides of the border. In addition to their contribution to climate change, these projects would bring a huge number of coal trains and barges through populated areas, raising serious concerns over the impacts of coal dust pollution. Finally, the giant freighters that would service the coal ports would greatly increase traffic in the Salish Sea's marine shipping routes.

After significant public consultation in Washington State, the review of the Gateway Pacific proposal is now required to consider the terminal's impact on CO2 emissions



Photo: Coal train (Paul Anderson).

from burning the coal, as well as air-borne coal dust levels and navigational challenges in the Salish Sea.¹⁶ Here in BC, Port Metro Vancouver has dismissed climate impacts and broader effects on the coal shipping route as outside the scope of its review.

Banning thermal coal exports in the Salish Sea is essential if we're serious about doing our part in the fight against climate change.



Photo: Port Metro Vancouver coal protest (Alexis Stoymenoff).



Photo: Coastal sandpiper (Jared Hobbs).



Photo: Squamish and Tseil-Waututh Chiefs sign the Save the Fraser Declaration (Michael Wheatley).

Most of the coal produced in BC is metallurgical coal, which is used for industrial purposes such as making steel. Thermal coal, which is burned to generate power, is much dirtier and has a far greater impact on climate change.¹⁷

OPPOSITION FROM FIRST NATIONS ALONG THE SALISH SEA

The Salish Sea has been home to Indigenous Coast Salish peoples since time immemorial. They have lived sustainably in this region for generations, and their cultures and traditions recognize the duty that humans have as stewards of the environment and resources. On some fossil fuel export proposals in the Salish Sea, the opposition is led by Indigenous nations, who cite concern over the impacts of the proposals and their sacred responsibility to defend their lands and waters.

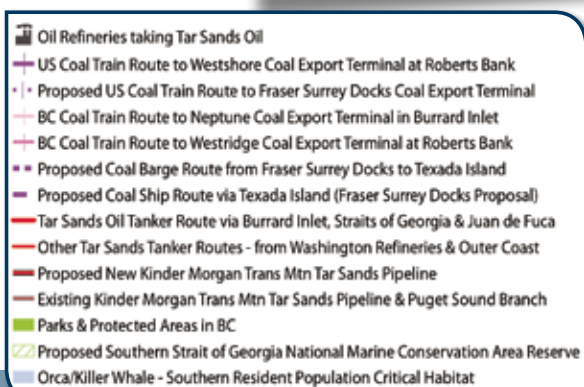
The fight against the Kinder Morgan pipeline, for example, is led by First Nations like the Tseil-Waututh and Squamish. Leaders from both communities have signed onto the **Save the Fraser Declaration** – joining over 130 First Nations in an Indigenous law banning tar sands pipelines and tankers from their territories.¹⁸

Representatives from these nations have worked very hard to

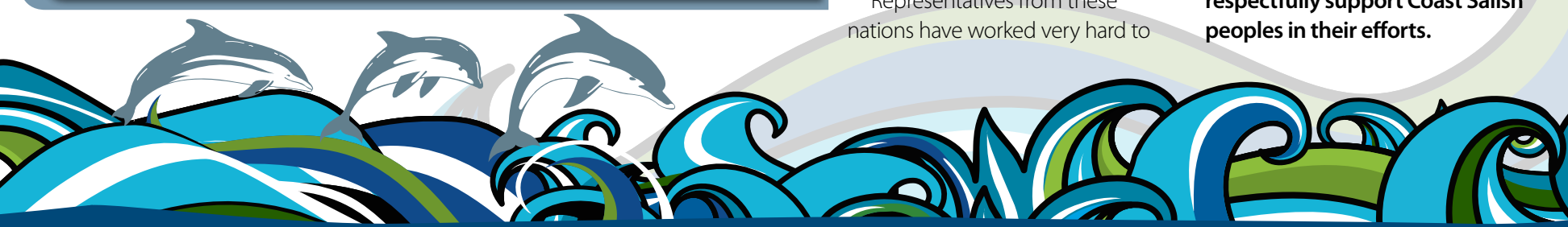
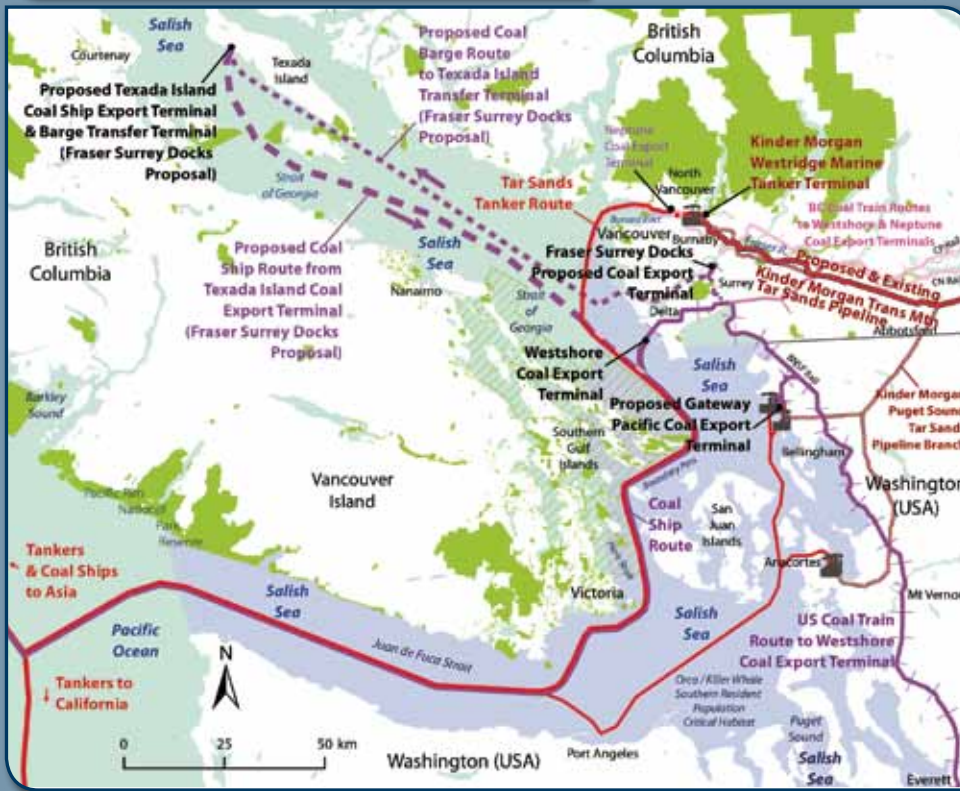
spread the word about the risks and impacts of Kinder Morgan's pipeline and tanker plans. In February 2014, the Tseil-Waututh, Musqueam and Squamish First Nations in BC and the Swinomish Indian Tribal Community, Tulalip Tribes, Lummi Nation and Suquamish Tribe in Washington State all registered to intervene in the project's federal review process.

South of the border, the Lummi Nation has also been a key player in the fight to stop coal port expansion along the Washington coast. To help raise awareness about the issue, Lummi carvers brought a symbolic totem pole on a healing journey in summer 2013, travelling from the coal fields in Wyoming to Tseil-Waututh territory in BC.¹⁹

All of us who oppose the transformation of the Salish Sea into a carbon corridor should look up to this strong Indigenous leadership, and work to respectfully support Coast Salish peoples in their efforts.



THE SALISH SEA REGION



A VIBRANT BUT VULNERABLE COASTAL ECONOMY

The same factors that jeopardize the delicate ecology of the Salish Sea also pose a threat to the region's strong coastal economy. **Increased tanker traffic, accidents, marine spills and climate change all pose a risk to industries like tourism, fisheries and other activities.**

These sectors employ thousands of people, generate billions of dollars and contribute to the generally high standard of living in the Salish Sea.

Tourism is a powerhouse in BC's economy, contributing \$6.5 billion to the province's gross domestic product (GDP) in 2011 – 23 per cent more than it did a decade earlier.²⁰ The Salish Sea is an integral part of the BC tourism industry, which is

dependent on a clean, safe coastline and a stable climate.

Fishing, a backbone of BC's economy for decades, still generates hundreds of millions of dollars annually, and provides thousands of jobs in coastal communities.²¹

Not only do these industries generate dollars and jobs – in many cases, more dollars and jobs than fossil fuel export projects – they are not based on finite resources like coal or tar sands. They don't fuel boreal forest destruction in northern Alberta, or open-pit mining in the western U.S. And they don't expand fossil fuel markets and lock us into a reckless future as a climate change facilitator.

MORE FOSSIL FUEL PROJECTS, LESS DEMOCRACY

Public involvement in decisions on major projects has long been a valuable part of Canadian democracy. Unfortunately, new federal policies have shifted us toward a review system that ensures far less public input. In 2012, Ottawa passed a piece of legislation known as "Bill C-38", introduced in the form of a 425-page omnibus budget bill. Bill C-38 contained frightening changes to Canada's environmental laws and review processes, including:

- New restrictions on who is eligible to participate in reviews for energy projects, such as pipelines
- Drastic weakening of laws that protect critical fish habitat
- New rules limiting federal investigation into the impacts of large energy projects²²



Photo top: Hornby Island (Michael Wheatley), above left: Pacific great blue heron (Jared Hobbs), above right: Killer whale in Johnstone Strait (Don Johnston).

For more info, maps and campaign updates, visit: SalishSeaAction.org

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TAKE ACTION

It's time to Save the Salish Sea from becoming a highway to runaway climate change. Please write to the Premier of BC and insist that the province must:

- Do everything in its power to stop new tar sands and thermal coal export infrastructure in the Salish Sea
- Conduct a Health Impact Assessment regarding huge amounts of U.S. thermal coal and tar sands oil passing through our communities, including the impact of climate change on our health
- Apply BC's Carbon Tax to any fossil fuels that are exported through BC

CONTACT INFORMATION:

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✉ Premier@gov.bc.ca



Photo: Coast Salish Welcoming totem at Ambleside Park (Michael Wheatley).

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YES

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I want to become a member! Enclosed is my annual fee for a:
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