

Watershed

Sentinel



WAR/ PEACE



Love Letters

We absolutely love reading the notes in your renewals and subscriptions! We've been saving them up to share this Valentine's Day, in the spirit of connection and community.
p.s. we love you too! —Delores, Zoe, and the WS team

"Happy Anniversary! Thanks for your many years of hard work, commitment and love." —Jeanette, Fanny Bay, BC

"I don't read many zines but I've been reading this one cover to cover for many years." —Jo Ann, Salt Spring Island, BC

"I found your magazine in the Courtenay library and think it is GREAT. Thanks for a one-year subscription and calendar." —Darlene, Tofino, BC

"*Watershed Sentinel* is greatly appreciated in these dark times for the environment - and much else!" —Alan, North Saanich, BC

"[We] love this little Island magazine. The issues and content are always topnotch and the journalism a welcome relief." —Janet and Steve, Victoria, BC

"Truth, facts, logic, concern for sustaining healthy life for all species, are respected qualities of the *Sentinel*. Long may you run - eh?" —Chris, Salt Spring Island, BC

"Keep up the good work, the latest issues seem better and better!" —David, Port Alberni, BC

"I am delighted to be receiving the "Shed" for another year. It is excellent and I look forward to reading it always. At this time I'm making a donation in honour of the outstanding journalism and timely stories. Everyone should be reading it - here on the island and elsewhere. All the best to all of you." —Adele, Victoria, BC

"Love the magazine. Always read cover to cover." —Antoinette, Nanaimo, BC

"I've been reading this magazine since its inception. It keeps getting better." —Phyllis, Denman Island, BC

"Marvellous. Absolutely necessary. Thank you all." —Norm, Bowser, BC

"Great website, but still love to have my paper one in hand." —Mary, BC

"So appreciative of every issue. Thank you." —Ron, Courtenay, BC

"So sorry I let this expire. Much appreciate this little magazine." —David, Victoria, BC

"Keep up the good work: the *Sentinel* is my favourite serial title and for the time I have been reading it, you have never disappointed me." —Jim, Edmonton, AB

"Great magazine! Much respect!" —Pete, Slocan Park, BC

Features



Stanley Park Falling

The City of Vancouver is needlessly cutting thousands of valuable trees from its iconic urban park.

War/Peace

War is the foundation of the modern economy and the nation we occupy. But it's not inevitable. The potential for a just, harmonious society is there, waiting, like a seed sleeping in bloodsoaked ground.

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Obstructing Injustice

What would it take to establish a Department of Peace? Experts have studied the psychology of war and violence for decades. We know what drives brutality and dehumanization. But what are the wellsprings of peace and cooperation?

Past generations saw heroes like Martin Luther King Jr., Mahatma Gandhi, and Rosa Parks risk their freedom and safety for their principles. More recently, we witnessed thousands of heroes who withstood police violence and loss of liberty to protect Fairy Creek's forests and Indigenous rights in Wet'suwet'en.

Peaceful direct action has an infinite array of strategies: blockades, occupations, boycotts, conscientious objectors, tax resistance, and more. Proponents of violence have one strategy: fear. Their tools are force, coercion, and propaganda. The war makers have turned disinformation into an art and a science. They are creating monsters.

But even in countries at war, like Israel and Russia, dozens of peace groups and war resisters are speaking out and organizing every day, refusing to comply despite threats of treason charges, prison, and worse.

Leaders have the power to use force against their own people and others. They can enact compulsory military service – the draft – and compel citizens to choose between going to war or going to jail. But some will always resist regardless of the consequences. Violence and fear will never win hearts and minds, or people's love and loyalty. And it cannot bring peace.

—Zoe Blunt, Sayward, BC, January 2025

What's New at the 'Shed

We're back! We survived the postal strike, and we're overwhelmed with gratitude for the flood of contributions from our readers. You made all the difference in the world.

Don't touch that dial! Watershed Radio is coming your way this year. Stay tuned for details about this exciting new media project.

Changing of the guard: Delores Broten, *Watershed Sentinel's* founder and editor for over three decades, has stepped back from production work to take on the role of executive editor. She is so proud of this great team: writers, editors, proofreaders, and all!

Subscribers and sustainers are the foundation of this work. Thank you for being the bedrock this project is built on. We've streamlined our donation forms to make it easier to give, and added an auto-renew subscription function so you can subscribe without being bothered by expiry notices at the end of the year.

Our newsletter is free! Sign up now for more stories, videos, and events from the *Sentinel*, plus links from around the world. Add your email address to our list by visiting www.watershedsentinel.ca or emailing terry@watershedsentinel.ca.

Deforestation rates fall under Lula

Amazon Politics

The latest satellite data from Brazil confirm a second year of declining deforestation in the Brazilian Amazon. The decline coincides with the current presidency of Luiz Inácio Lula da Silva (Lula). Deforestation rates had doubled under previous president Jair Bolsonaro, but those rates have roughly halved since 2022. During Lula’s first two terms, in the early 2000s, deforestation rates fell by 75%.

The Amazon is still losing forest; deforestation rates are not zero. Lula and his environment minister, Marina Silva, have pledged to end deforestation by 2030; however, Lula’s term ends in 2026 and it’s an open question whether he will run for re-election.

—www.sustainabilitybynumbers.com
December 18, 2024

Takahē returns from “extinction”

Strange Bird



Eighteen Takahē birds were recently released in the Lake Whakatipu Waimāori Valley on New Zealand’s South Island. These large, flightless birds were declared extinct in 1898; however, in 1948, they were rediscovered, and conservation efforts revived the population through a combination of breeding in controlled environments and culling invasive pests that threaten their survival. Today, there

are around 500 takahē birds, and their numbers are growing by about eight per cent each year.

These birds held great value for the ancestors of Ngāi Tahu people, as their feathers were gathered and woven into cloaks. The decline of the wild takahē population coincided with the theft of Indigenous lands on Aotearoa, and the release of these birds into the valley holds immense importance for the Maori.

—www.greekreporter.com
November 10, 2024

Technology-assisted migration

Fish Doorbell

Every spring, fish migrate through the city of Utrecht, Netherlands, on their way to spawning grounds upstream. These fish play an important role in the ecosystem, but their passage is blocked by the Weerdsluis lock – a kind of dam designed to allow boats to pass. Operators are stationed at the lock to open it when needed, but they can’t see the fish waiting to swim through. To solve the problem, an underwater webcam livestreams the lock. When fish appear on the livestream, viewers can ring a digital “doorbell” and signal the lock attendant to open the passage.

—www.slate.com
April 4, 2024

Enbridge reports were late, wrong

WI Oil Spill

Enbridge Energy has admitted to a massive oil spill in Northern Wisconsin. Residents and experts question why the company was slow to alert the public, and why the size of the spill jumped from two

gallons to 70,000. The leak spilled from Enbridge’s Line 6 pipeline that runs from Superior, WI to Griffith, IN. Soon after the spill, Wisconsin’s Department of Natural Resources approved a new plan for Enbridge’s Line 5 near Lake Superior.

—www.jsonline.com
December 20, 2024

Florida release to fight disease

GM Mosquitoes

The EPA has extended the permit to release genetically-modified mosquitoes in the US. Scientists bioengineered male *Aedes aegypti* mosquitoes, the species most often responsible for outbreaks of Zika, dengue fever, and yellow fever. The modified males, which don’t bite, carry a gene that causes female larvae to die. This field test in Florida follows other field tests in Brazil, Cayman Islands, Panama, and Malaysia, where species populations dropped by 90% or more.

—www.cdc.gov
April 20, 2024

Dutch agriculture experiment

Suburban Farms

In the Dutch suburb of Oosterwold, 5000 inhabitants are part of an experiment in urban agriculture. Residents are free to build their own houses and make their own decisions about street names, waste management, roads, and schools. But the local government requires food to be grown on about half of each lot. The project includes a Food Hub centre for food processing, storage, and information, a food co-op, and about 1000 gardens, greenhouses, and orchards.

—www.theguardian.com
November 28, 2024

Letters

Keep Protection the Priority

In response to “Gulf Islands Trust: 50 years of Saving the Islands from Becoming Manhattan” [*WS* Oct-Nov 2024]. The article highlights threats to the Gulf Islands from unchecked development, emphasizing the importance of the *Islands Trust Act* of 1974 in preventing widespread destruction, and indeed, without the Islands Trust, much of this paradise likely would have been paved, given its proximity to major urban centres.

However, this article doesn’t convey the failure of trustees to manage overpopulation, leading to freshwater scarcity, septic issues, traffic congestion, and environmental strain. A 2019 Trust report warned that three islands were nearing environmental tipping points.

Gabriola Island faced such severe water shortages that 9 million litres were trucked in in 2021, yet a multi-unit building is proposed in an area already dense with wells. On Galiano, multi-unit buildings are being approved in water-scarce areas, and bylaws intended to protect critical recharge areas have as many exemptions as to be almost meaningless.

Trustees have reinterpreted the Trust’s mandate to include tourism, livelihoods, infrastructure, and housing, shifting focus from environmental preservation. This approach undermines the Trust’s primary purpose and exceeds its authority.

The Friends of the Gulf Islands Society monitors Trust actions, advocating for environmental protection as originally intended by the Act. (www.friendsofthegulfislands.ca)

—Mazine Leichter
Salt Spring Island, British Columbia

To the Honourable George Heyman

BC Minister of Environment and Climate Change Strategy

Dear Mr. Heyman,

I would be grateful to have your reaction to the article “Blood in the Water” in the December 2024 issue of *Watershed Sentinel*.

In case your office does not subscribe, *Watershed Sentinel* is published five times per year by the Watershed Sentinel Educational Society, located in Comox. It is a member of both Magazines BC and Magazines Canada. It can be contacted by telephone at 250-339-6117, and by email at editor@watershedsentinel.ca.

—Neil Frazer, PhD
Professor of Earth Sciences, Emeritus
School of Ocean and Earth Science and
Technology, University of Hawaii at
Mānoa, Honolulu, HI

US Might, Canadian Complacency

The United States has a long history of violence. According to historians the US has invaded or fought in 84 out of 195 countries and had some form of military involvement with 191 out of 195. The US frequently justifies these actions as “spreading freedom and democracy.”

Canada has become a vassal state to the most hegemonic and violent nation on the planet, and our foreign, economic and domestic policies reflect the disastrous consequences of such subservience. The collapse of our social infrastructures, health, education, shelter, food security; the absurd wealth inequity, sellout of our resources, soaring national debt, and crazy

inflation. Yet our government continues to fund warmongering under the guise of spreading democracy and freedom. It is no wonder that, in the eyes of the global south, we are indistinguishable from the most hegemonic and violent nation on the planet. If they do not wake up promptly, Canadians could leave their grandchildren gazing at a red and white flag in a museum asking – what flag is that?

Never in history, and I include the Cuban Crisis which I endured, have we been in such dangerous threat of the outbreak of nuclear war. I make this point as just one overreaction or mistake, and there will be no climate or planet to worry about.

—John Main
Bobcaygeon, Ontario

A Better World

Thanks for all the excellent reporting. It doesn’t get any easier from year to year... but we all must just keep trying to make a better Canada, and a better world.

—Karen
Thunder Bay, ON

The Watershed Sentinel welcomes letters

but reserves the right to edit for brevity, clarity, legality, and taste.

Anonymous letters will not be published.

Send your musings and your missives to:

Watershed Sentinel

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or online at www.watershedsentinel.ca

Charges laid in 2014 dam failure

Mt. Polley Case

Imperial Metals, owner of the Mount Polley mine, is facing 15 counts of damaging fish habitat under the federal *Fisheries Act*. The federal charges come a decade after a tailings dam failed at the Mount Polley mine site, allowing 25 billion litres of toxic sludge to flow into local waterways. The penalty could be severe; in 2021, Teck Resources was ordered to pay \$60 million after pleading guilty to polluting waterways in Elk Valley.

—www.thenarwhal.ca
December 10, 2024

Land sold illegally 146 years ago

Win for Tla'amin

The Tla'amin Nation has reached an agreement with the federal government and wood fibre company Domtar (formerly Paper Excellence) to return a former village site illegally sold in 1878. The village site, known as *tiskʷat*, is located north of Powell River on the Sunshine Coast of BC. “This agreement is a step in the right direction for us to regain our rightful place at *tiskʷat*,” said Hegus John Hackett. “We will continue to work with Domtar and Brookfield to protect Tla'amin archaeological and stewardship interests across the entire site.”

—www.tlaamination.com
December 27, 2024

Many runs did better than expected

Salmon Returns

Last fall, many salmon streams saw surprisingly large returns of chum and other salmon. Runs in the tens of thou-

sands were observed on eastern Vancouver Island and mainland inlets from the Broughton Archipelago to Puget Sound – the same areas where many ocean-based salmon farms were recently shut down.

—www.alexandramorton.typepad.com
January, 2025

FortisBC charges more for pipelines

Gas is Going Up

BC households are paying for pipelines and LNG exports. On January 1, FortisBC raised its prices by \$14.25 a month on average, the private gas utility says. Greater increases are expected in coming years to pay for more new pipelines and LNG projects. Parent company Fortis Inc. cleared \$420 million in profits in the last quarter of 2024.

—www.dogwoodbc.ca
January 8, 2025

Paltry fine for Imperial Oil spill

Slap on the Wrist

In November, Ecojustice requested that the Alberta Energy Regulator reconsider an “unreasonably low” \$50,000 fine for a massive tailings spill at Imperial Oil’s Kearl Oil Sands Mine. Ecojustice, representing Keepers of the Water, Athabasca Chipewyan First Nation, and other groups, is demanding the regulator impose a fine that reflects the severity of the incident and its own laws. Tailings leaked for nine months and then overflowed catastrophically into fish-bearing streams in February 2023. Meanwhile, Imperial Oil reported \$1.13 billion in profits in the second quarter of 2024.

—www.keepersofthewater.ca
December 5, 2024

Canadian company connections

LNG and Trump

A November 29 dinner meeting between Justin Trudeau and Donald Trump at Mar-a-Lago also included a senior executive of Canadian pipeline and natural gas giant TC Energy, the Investigative Journalism Foundation has revealed. TC Energy, owner of the Coastal GasLink pipeline, will enjoy close access to the Trump administration, as the IJF has uncovered a dozen connections between the gas company and the incoming Trump administration involving family members, former colleagues, and lobbyists.

—www.msn.com
December 10, 2024

Vista Coal Mine expansion approved

Impact of Coal



The federal government will not require a Federal Impact Assessment for the expansion of the Vista Coal Mine in Yellowhead County, AB. The approval will double the amount of coal produced at Canada’s largest thermal coal mine. Expanding Vista Coal Mine threatens to destroy critical habitat and water quality. The decision ignores Indigenous rights and climate change. The expansion is likely to cause permanent harm to endangered species such as the Athabasca rainbow trout and bull trout.

—www.keepersofthewater.ca
December 11, 2024

Alberta's Slippery Ads

Provincial agency dodges new rules on greenwashing

by *Watershed Sentinel* staff, with files from *The Energy Mix*

In June 2024, the federal government adopted new rules to end greenwashing, defined as false or misleading claims about “protecting or restoring the environment or mitigating the environmental and ecological causes or effects of climate change.”

The rules came after a high-profile advertising campaign by Canada Action, which included billboards and full-page ads in major newspapers asserting falsely that fossil fuels are green and sustainable. The ads drew widespread condemnation and an official rebuke from the Advertising Standards Council.

The amendments to Canada's *Competition Act* apply to corporations promoting their products and services in Canada. They prohibit claims about the climate and the environment that lack scientific evidence, in the same way that corporations are prohibited from using false health claims to sell products with no health benefits.

But the rules apparently don't apply to provincial government agencies.

As soon as the amendments were announced, Alberta shuttered the Canadian Energy Centre Ltd, a private corporation nicknamed the “Energy War Room,” and folded its operations into the provincial intergovernmental affairs ministry.

Then, in October, Alberta ran a \$7-million ad campaign that tried to convince



the public that the federal government's proposed climate emissions cap is harmful and unnecessary, parroting the oil and gas industry's position. The ads ran on the covers of some of Canada's biggest daily newspapers and directed readers to a website set up by the province.

According to federal data, the oil and gas sector's greenhouse gas emissions increased 83% since 1990 and now comprise almost one-third of Canada's total emissions. But Alberta's *ScrapTheCap.ca* website includes dubious claims that oil and gas producers have achieved “significant emissions reductions, as shown in the federal government's own data.” No sources are cited.

A loophole in the amended regulations means government advertising may be a way for companies to have their positions re-published without coming into conflict with the legislation, according to two different lawyers.

“It's problematic that governments are parroting what we highly suspect is greenwashing,” Matt Hulse, a lawyer with Ecojustice, told *The Energy Mix*. But for the *Competition Act* to apply, “it would have to be traced back to

those who made the claims in the first place.” He adds, “They are calling it ‘political speech’ and that's not captured by the *Act*.”

“Even experts who are not necessarily in favour of climate policies are saying a lot of the stuff in this campaign is not true,” Conor Curtis, head of communications for Sierra Club Canada, told *The Energy Mix*. “We know from polling done in Alberta that the majority of residents support the cap, and yet their taxpayer dollars are being used to run a misinformation campaign.”

“The worst thing is that it's coming at the expense of the Alberta taxpayer at a time when that money is needed for things like wildfire preparedness or emissions reductions within Alberta or renewable energy within Alberta, things that are actual solutions,” Hulse said.

Fishy Genetics

Government props up failing GM salmon company

by Watershed Sentinel staff, with files from CBAN

Canadian Biotechnology Action Network (CBAN) is calling on the Auditors General of Canada and Prince Edward Island to investigate why the government funneled hundreds of thousands of dollars into a genetically-modified salmon company that is closing its doors.

Troubled biotech company AquaBounty is stopping production of all genetically-modified (GM) salmon and closing its last working facility at Bay Fortune on Prince Edward Island. The company previously laid off two dozen employees and shut down its Rollo Bay facility. Two plants were put up for sale in an effort to generate cash.

The news came just weeks after the federal and PEI governments announced \$231,095 in funding for the company. CBAN, which monitors GM food and farming, has registered a complaint with the Auditors General and the federal and provincial ministers of fisheries. CBAN is calling for a review of the decision to send more funds to AquaBounty when the company already owed PEI \$1.5 million from a \$2.7 million loan in 2018.

According to a government statement, AquaBounty was one of 39 companies funded to help improve “sustainability in the provincial fish and seafood sector.”

“This struggling company has survived largely due to investor hype, along with decades of government funding and the



support of the federal policy to deny consumers mandatory labelling of GM food,” said CBAN coordinator Lucy Sharrat. “Genetic modification is clearly not a sound investment. The use of this technology for food production is risky and extremely controversial.”

“This company has been struggling for years to sell this GM fish that no one wants while cashing cheques from the public purse. I hope we’re close to the end of this debacle,” added Sharon Labchuk of the GMO-Free PEI coalition.

Currently, AquaBounty’s only holding is a small research and development facility at Bay Fortune, PEI, which planned to produce GM salmon eggs for a future facility in Ohio. Construction of the Ohio facility stopped in June 2023.

“And so ends a science experiment which never should have started because of the risk to wild Atlantic salmon,” said Mark Butler, Senior Advisor at Nature Canada. “As they shut their operations in PEI, we encourage the company to ensure that all genetically modified fish and eggs are safely culled to ensure there is no risk of escape in the closing days.”

AquaBounty will likely lose its NASDAQ stock market listing after its share price dropped below the \$1 USD minimum. Dave Melbourne, the company’s CEO, resigned in December.

Prince Rupert Pipeline

Revived project meets renewed Indigenous resistance

by Sidney Coles

On a forestry road north of Kispiox, Gitksan land protectors have set up a blockade to protest the Prince Rupert Gas Terminal pipeline (PRGT) on their *laxyip* (homelands). Their efforts reflect a province-wide struggle for Indigenous sovereignty, environmental health, and cultural heritage.

Back in 2014, a terminal and pipeline project ignited serious opposition from Gitwilgyoots, a house group (matrilinal extended family group) of Lax Kw'alaams (Fort Simpson) First Nation. Beginning in 2015, members of Gitwilgyoots, led by Donny Wesley, wing chief Murray Smith, and their allies, established a camp and a cabin on Lelu Island, where Malaysian-owned Pacific Northwest LNG planned to build an \$11.4 billion liquefied natural gas (LNG) terminal.

At the time, another First Nations group including Metlakatla, Kitsumkalum, Kitselas, and Gitxaala First Nations signed onto the project agreement and supported it moving forward.

The centre of resistance to the project was Lelu Island's ecological and cultural importance. The Flora Banks and the Skeena River estuary provide critical habitat for juvenile salmon, a species vital to the region's ecosystems and Indigenous livelihoods.

In 2017, amid mounting resistance and concerns about environmental and social



impacts, Petronas cancelled the PRGT project. Resistance leaders celebrated the decision as a victory for their sovereignty, the environment, and future generations. However, they recognized that ongoing vigilance would be needed to protect their lands and rights from future projects.

They were right. Eight years later, Gitksan youth, elders, and Gitanyow hereditary chiefs are again standing up against the newest iteration of the PRGT pipeline. In March 2024, TC Energy Corporation announced a binding agreement with Nisga'a Nation and Western LNG to purchase all outstanding shares in the PRGT pipeline.

If built, the 800 km pipeline could carry

two billion cubic feet of fracked gas per day from Hudson's Hope in northeastern BC to a proposed LNG terminal and export facility on Pearse Island owned by the Nisga'a Nation. The Nisga'a also signed the original benefit agreement for the PRGT project in 2014.

The Gitksan Nation and Gitanyow Nation both have traditional territories that the natural gas pipeline would cross. Gitanyow chiefs signed benefits agreements for the first PRGT project proposal. But by the fall of 2023, the Gitanyow chiefs were already expressing concern that the outdated agreement no longer reflected the one that three of eight hereditary chiefs had signed onto in 2014. They noted the original Environmental As-

assessment certificate expired in November 2024.

At an event marking the expiration of the EA certificate, Gitanyow *simooget* (hereditary chief) Malii (Glen Williams) said, “This out-of-date and risky project does not meet the current needs of Gitanyow and others, mainly a healthy climate and thriving environment for future generations.”

At a Gitksan *laxyip* youth event at Gitimaax Hall in August 2024, co-organizer Drew Harris told those gathered, “We, the youth of the Gitksan *laxyip*, stand united in defending our cultural, ecological, and spiritual integrity. As stewards of these lands, we are the inheritors of our ancestor’s wisdom, the guardians of the rivers, forests, and mountains that have nourished our people for millennia. The Gitksan *laxyip* is not just land; it is the source of our life, the bedrock of our identity and the foundation of our future.”

Days later, Gamlakyeltxw Wil Marsden and Watakhayetsxw Deborah Good set up a blockade to delay PRGT construction and stop personnel accessing the road 170 kilometres north of Terrace, BC.

“Following our youth-led impact meeting, the Gitanyow Chiefs were inspired to burn their ten-year agreement with the project. They listened to our fears and stood in solidarity with us,” said Harris.

Meanwhile, Nisga’a members were celebrating at a PRGT ground-breaking ceremony. Nisga’a Lisims government executive chairperson Brian Tait said his government signed onto the project because, “For too long, the Nisga’a people have stood on the sidelines while others build wealth on the resources of our lands.”

“The Gitanyow Chiefs were inspired to burn their ten-year agreement with the project.”

Economic opportunity or “economic reconciliation” is often the bait-and-switch the provincial government and extractive industries uses to divide and entice impoverished First Nations communities into signing benefits agreements at the risk of the ecological well-being of their lands.

Gitksan protectors – including Kolin Sutherland-Wilson of Git’luuhl’um’hetxwit Wilp, recent Green Party candidate and hereditary chief Wil Marsden, and Jesse Stoeppler of the Skeena Watershed Conservation Coalition – maintain staunch opposition to the project. They emphasized their inherent authority over their traditional territories, which predates colonial governance.

At a fundraiser in Victoria, Sutherland-Wilson told the crowd, “PRGT is the exact same generation as Coastal GasLink. We killed it once. We thought all this was dead in 2017. We focused on the fight for our relatives on Wet’suwet’en territory because Coastal GasLink and PRGT are the exact same monster.”

The Gitksan resistance to the Prince Rupert Gas Terminal pipeline bears striking parallels to the ongoing Wet’suwet’en resistance to the Coastal GasLink (CGL) pipeline. In both cases, Indigenous communities are asserting their authority over traditional territories in opposition to industrial projects that threaten ecological and cultural resources.

In October 2024, the Gitanyow Hereditary Chiefs launched legal proceedings against the Ksi Lisims LNG project. Marsden told the *Watershed Sentinel* that the case will prove undisputed title in Gitanyow *laxyip*. Ultimately, he says, “they have two solutions to bring this all to a head; one, title by agreement, versus title by litigation and shutting it all down.”

PRGT in late 2024 applied to the provincial government for a “substantial start” determination, which would extend the EA certificate for the duration of the project, presenting Tamara Davidson, the newly-appointed Minister for Environment and Parks, with a huge decision to make when BC legislators return for the spring session of Parliament.

Sidney Coles holds two PhDs. She is a journalist and writer on the traditional territories of the ɫəkwəŋən peoples.

Stanley Park is Falling

Vancouver is needlessly cutting thousands of valuable trees

by Michael Robert Caditz

The City of Vancouver is cutting down thousands of trees in Vancouver’s iconic Stanley Park, ostensibly because of public safety reasons. Grassroots activists like Stanley Park Preservation Society are fighting tooth and nail, including pursuing an ongoing lawsuit, to put an end to what they believe is an unjustifiable betrayal of the ecology of Stanley Park and its immense historical value to indigenous peoples, urban dwellers, and international visitors.

Scientists and opponents of the logging (recently reformulated by the city as “risk mitigation – not logging” for public-relations purposes) dispute the claim that conifer snags (dead, standing trees) naturally defoliated by the western hemlock looper moth, a native insect, pose increased danger of wildfire and falling. They point to substantial evidence that logging degrades forest resilience and increases blowdown danger due to canopy loss and creation of wind tunnels. Photographs from the 2024 windstorms show most blowdowns on roads and paths were fully foliated trees – especially cedar.

An initial assessment by forestry contractor B.A. Blackwell Associates recommended removing as many as 160,000 trees: 20,000 larger trees and up to 140,000 smaller ones – almost one-third of the trees in the park. The city now claims that fewer trees will be cut but does not provide a number. Further, there is no documentation showing that removed trees, most of which show no

signs of structural failure, have been inspected and determined to be hazardous.

In an apparent conflict of interest, Blackwell offered itself as the general contractor for the logging operation. Thus, it stood to profit in proportion to the scale of operation it recommended. The City ultimately awarded Blackwell multiple contracts worth a total of \$18.9 million for the multi-year project, including \$11.1 million secretly funneled from the city’s general revenue stabilization reserve.

Assumption of risk

Opponents point out that Blackwell’s assessment grossly exaggerated risk of wildfire engulfing Stanley Park – it assumed, for example, twelve hours with no fire suppression response. This is implausible, they argue, because in the Stanley Park rainforest, soils are persistently wet even in the height of summer (except, notably, in logged areas exposed to increased heating). Blackwell also failed to note the more than 70 fire hydrants that would be deployed in the event of wildfire.

With respect to falling-tree hazards, the City of Vancouver and Blackwell are contravening established forest management practices by failing to correctly assess risk. This leads to arbitrary decisions, resulting in many trees that are not hazardous being cut down. Whether a tree is hazardous can only be determined by inspecting that tree. Only brief walk-

throughs are being performed with blanket assessments of large groups of trees. But such generalized assessments identify only *potentially* hazardous trees, which then must be inspected individually for deterioration, decay, rot and structural instability, and properly documented.

Properly determining whether a tree should be removed is an ordered, non-arbitrary process beginning with walk-throughs to identify potentially hazardous trees requiring close-up inspections with a mallet or electronic instruments. Rarely can a tree be reasonably determined to be structurally unstable by a quick walk-by. Photographs of areas such as the Chickadee Trail, logged after only general walk-through assessments, confirmed that numerous structurally-sound trees were chopped down. Almost all stumps showed no evidence of structural defects that would have rendered the trees hazardous.

Diamond Head Consulting was retained by the City of Vancouver to make a brief assessment of the forest. Its December 2024 report confirmed the skepticism of logging opponents when it concluded:

“A detailed, tree-by-tree assessment is necessary to properly identify, document, and mitigate hazardous trees. We recommend that the City of Vancouver establish the occupancy rates for each assessment area, adopt a risk threshold for treating hazardous trees, and carry out a more comprehensive risk assessment.”

The real cost

Hours after receiving the report, City of Vancouver staff convinced three Park Board commissioners to accelerate and extend logging operations. After two commissioners left the meeting and two abstained, the motion passed.

The ultimate cost of removing thousands of trees from Stanley Park will be immense ecological damage, as ecologist and habitat expert Dr. Christine Thuring testified in a court affidavit:

“In my opinion, if the climate does indeed get hotter and drier over the years to come, as projected, then keeping this forest intact will benefit the park and region greatly. By contrast, if this forest fragment is disturbed by logging with heavy machinery, I believe it will become more fire-prone and be irreversibly

The assessment grossly exaggerates the risk of a wildfire engulfing Stanley Park

changed due to alterations to the ground and shrub layer and the moist soil currently present.”

If the goal is simply to protect people from falling trees, it is unclear why felled trees are being hauled out of the park. If the concern were flammability of fine fuels such as dead branches and needles, they could be periodically removed while leaving the decaying trunks for ecological benefit. The dollar value of the logs

could be millions, but the city won't say where the lumber is going.

The city claims to be replanting with selectively-bred cedar and fir. Park Board Commissioner Thomas Digby stated that the goal was to eliminate the “doomed” hemlock species in Stanley Park, one of the last ancient coastal western hemlock forests in North America. Tragically, it will be lost if this ill-conceived logging continues, and if Stanley Park's grand forest is re-engineered into a plantation.

Michael Robert Caditz is a founding director of Stanley Park Preservation Society and long-time resident of Vancouver, with an educational background in philosophy and sustainable energy management.



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Mining on the Stikine

Industry expansion raises **issues** on both sides of the border



by Max Graham

A major copper-and-gold mine in the mountains of northwestern British Columbia – upstream from an Alaska fishing town – is poised for a boost from the Canadian government.

Natural Resources Canada has announced plans to inject about US\$15 million into a massive copper and gold development just 25 miles from the Alaska border. The project is located within the traditional territory of the Tahltan First Nation, and perched above tributaries of the Stikine River – a major salmon-bearing

waterway that flows into Alaska’s Inside Passage between the small towns of Wrangell and Petersburg.

The public funds would pay to build a key 27-mile stretch of road at Galore Creek, which is evenly owned by two major mining corporations (Teck and Newmont), and sits on more than 600 square miles of mineral claims.

Canada’s push to help Teck and Newmont unearth some 12 billion pounds of copper and nine million ounces of gold at Galore

Creek is part of a bigger effort by the feds and BC’s provincial government to promote mining in the remote, largely roadless mountains near the Alaska border.

In the past three months, Canada and BC have announced that they’re directing roughly \$185 million toward mining-related infrastructure in the area. A good chunk of that money comes from a national \$1 billion fund intended to boost production of minerals that Canadian officials have deemed critical for energy and national security.

“Rather than honoring Indigenous sovereignty and its treaty obligations, Canada is staging our traditional homelands and waters to be the sacrifice zone to benefit the British Columbia mining industry and its shareholders,” Richard Chalyee Éesh Peterson, president of Southeast Alaska’s largest tribal government, the Central Council of the Tlingit and Haida Indian Tribes of Alaska, said in a statement to *Northern Journal*.

Multiple rivers span the US-Canada border, and tribal governments and environmental groups on Alaska’s coast fear that new mines in northwest BC could pollute those rivers and harm lucrative and culturally vital fisheries. Concerns mounted over the summer after a cyanide spill at a major Canadian gold mine in the watershed of the Yukon River, Alaska’s biggest transboundary waterway.

Following that spill, Alaska’s congressional delegation sent a letter to the Biden administration urging the president to support “binding and enforceable international protections and financial assurances for any potential impacts in transboundary watersheds,” including the Stikine. The letter stopped short of calling for some of the measures requested by Southeast Alaska tribes and advocates.

The tribally-led Southeast Alaska Indigenous Transboundary Commission says that Canada and BC’s regulatory systems don’t adequately protect transboundary rivers and traditional lands, and that those governments have failed to obtain consent from Alaska tribes.

“This isn’t something that they’re building in some far-off area. It’s literally in our backyard,” Esther Aaltséen Reese said of Galore Creek. Reese is the commission’s president and the administrator of the tribal government in Wrangell.

Infrastructure expansion

In addition to the Galore Creek road, Canada’s federal government intends to spend money on highway upgrades and a study of power transmission lines linking northern BC and the Yukon Territory. That infrastructure is intended to support copper, molybdenum, nickel, cobalt, tungsten and zinc mining projects, according to Natural Resources Canada.

According to a spokesperson for the federal agency, the highway upgrades could aid seven mining projects in BC, while the power line project could support eight mining projects in various stages of development in the Yukon Territory, including a few in the transboundary Yukon River watershed.

Improvements touted by Natural Resources Canada, such as improved highway safety and expanded wifi access, have been endorsed by representatives of several First Nations in the region – including the Tahltan, whose traditional land covers a large swath of northwest BC. But the Tahltan Nation also wants to “control the pace and scale of devel-

opment in our territory,” said Beverly Slater, president of the Tahltan Central Government.

The mining industry has provided jobs for many Tahltan citizens, Slater said in a phone interview, though she also emphasized the need to protect water and animals like moose, elk, and salmon. “We’re not unlike other nations having to respond to the encroachment of the mining industry and demand for critical minerals,” Slater said. “Yet we’re trying to protect as much as we possibly can for future generations.”

“I can see where Canada has a lot to gain,” said Brenda Schwartz-Yeager, a lifelong Wrangell resident who runs riverboat tours on the Stikine River. “But we stand everything to lose here.” The Stikine is “one of the last great really wild rivers left on the planet,” she added. “So it’s a bit of a conundrum, right?”

This story originally appeared in *Northern Journal*, an independent news site published by Alaska-based reporter Nathaniel Herz. This version has been edited for length. www.northernjournal.com.

US Military and Canadian Government Joint Funding for Tungsten Mine

The Canadian government and US Department of Defence have announced joint funding for a mine that contains one of the largest tungsten deposits on Earth. The Mactung mine project straddles the border between the Yukon and the Northwest Territories, on the traditional territories of the Kaska and the First Nation of Na-Cho Nyäk Dun.

A spokesperson for the First Nation of the Na-Cho Nyäk Dun stated the nation has both environmental and moral concerns about tungsten mining, noting tungsten mining often uses large amounts of water, and pointing to the use of tungsten in weapons manufacturing. “NND has moral opposition to weapons production.... The link between this mine and missile production raises ethical questions about supporting industries tied to conflict and violence.”

—www.cbc.ca, December 17, 2024

Climate vs. Salmon

Drastic change threatens survival in the Salish Sea



Low water levels - Coldwater River - Nicola Region, BC

by Max Thaysen, with files from Dave Ewart

The salmon of the Salish Sea, long revered as a keystone species and cultural icon, are facing unprecedented challenges due to climate change. As warming temperatures and erratic weather patterns disrupt their life cycles, the survival of these sacred fish hangs in the balance.

Drawing on decades of experience with salmon, retired Fisheries and Oceans Canada (DFO) Watershed Enhancement Manager Dave Ewart provides a sobering

account of how climate change is reshaping the environment for salmon and the communities that depend on them.

For years, the Cortes Island Streamkeepers, in collaboration with the Klahoose Nation, have worked tirelessly to enhance salmon habitats and support local hatcheries. However, climate change has undermined these efforts. Streamkeepers have witnessed gravel and eggs washed out to sea, fish waiting endlessly for fall rain that never came, and passageways

restored at great expense only to sit empty. The urgency to act has never been greater, as salmon struggle to adapt to a rapidly changing environment.

The impact of warming waters

Ewart, who has spent over 40 years working with salmon on the BC coast, recalls a time when salmon survival rates were robust, and the seasons were predictable. “In the 1980s, survival rates from ocean entry to river return ranged from 5% to

20%,” he explains. But by the 1990s, those rates plummeted to as low as 1%, with Chinook salmon faring even worse. The culprit? Warming ocean waters, which disrupt the availability and quality of food for salmon.

“Ocean productivity has become variable and unstable,” Ewart says, emphasizing that the Pacific Ocean, once considered a limitless resource, is now a critical bottleneck for salmon survival. Rising water temperatures also exacerbate disease, reduce egg viability, and create mismatches between salmon migration and the availability of food in the ocean.

Rivers in crisis

The effects of climate change are equally devastating in freshwater habitats. Ewart describes how erratic weather patterns have led to more frequent and severe flooding, which destroys salmon eggs and alters river courses. At the same time, prolonged droughts in late summer and fall leave rivers too warm and shallow for salmon to migrate and spawn. “Instead of a big flood every ten years, the late 1990s brought two or three big floods almost every year,” he recalls.

On Vancouver Island’s Quinsam River, historic salmon migration routes have dried up, forcing fish to congregate in lower river sections where they are vulnerable to predators. In 2000, thousands of pink salmon died before spawning due to low water levels. They were blocked at a series of pinch points on the upper river which, at higher water, was passable. In the upper watershed, the main supply lakes were going dry and risking stopping flow to the river. BC Hydro was responsible for operating a series of water diversions in the area but misjudged the available water – the rains never came to replenish the reservoirs. In response,

streamkeepers and BC Hydro installed large pumps to maintain flow to the river from the lakes. This had never been done before. It is happening more and more.

An interesting fact about Quinsam pink salmon: they are thriving despite climate change because the Campbell River is unusually cold. The Campbell watershed is dammed and the lower river benefits from cold water being drawn off the lower lakes thermocline. This keeps salmon holding in the river in excellent cold conditions. When the Quinsam River cools down in late September, the pinks migrate from the Campbell into the Quinsam where they spawn.

A stark reality for Cortes Island

The challenges are particularly acute on Cortes Island, where the Klahoose Nation and the Cortes Island Streamkeepers have worked to sustain local salmon populations. In recent years, declining water availability in the spring forced the difficult decision to stop raising Coho salmon, which require more time in freshwater. Instead, the focus has shifted to chum salmon, which spend less time in streams and are better suited to the island’s changing conditions.

Even so, chum salmon face significant hurdles. In 2022, a prolonged drought left hundreds of chum stranded at the mouth of Basil Creek, where they fell prey to predators. When rains finally arrived, they triggered a catastrophic flood that displaced incubators and caused landslides. “This was another example of how erratic the weather has become and how it affects salmon,” Ewart observes.

What can be done?

Ewart believes that hatcheries and habitat restoration can play a vital role in miti-

gating the effects of climate change on salmon. Key strategies include finding ways to provide cool water during critical life stages, increasing egg-to-fry survival rates, restoring spawning gravel, holding pools, and estuary habitats, and enhancing water storage and accessing groundwater sources to maintain river flows.

However, Ewart stresses that these measures are only part of the solution. “In the bigger picture, we need to monitor and stop climate change,” he asserts. Without decisive action to reduce greenhouse gas emissions and limit global warming, the future of salmon – and the ecosystems and cultures they sustain – remains uncertain. This action needs to come very fast – as climate campaigner Bill McKibben says, winning slowly on climate is just another way to lose – this is a timed test.

A call to action

The plight of salmon in the Salish Sea is a stark reminder of the urgent need to address climate change. We owe it to future generations, to First Nations, to the fish, and all who depend on them. The Cortes Island Streamkeepers invite everyone to join the fight for real, deep, and fast habitat protection, including meaningful climate action. There are many ways to get involved with organizations that need support.

Max Thaysen has lived on Cortes Island since 2007. He has served as president of Friends of Cortes Island, and he is currently a story producer for the *Cortes Currents Radio Magazine*.

The Spread of PFAS

Dark Waters lawyer warns about refrigerant chemicals

by Blaise Salmon

Robert Bilott has been fighting big chemical companies over PFAS (per- and polyfluoroalkyl substances) for over 20 years.

The famed American environmental lawyer, whose story is told in the Netflix drama *Dark Waters*, spoke at a conference on refrigerants in Washington DC in June.

PFAS are known as “forever chemicals” because they persist indefinitely in the environment. They include more than 14,000 synthetic fluorinated chemicals found in a variety of applications, including nonstick cookware and stain-resistant clothing.

A West Virginia farmer helped launch Bilott’s battle with PFAS in 1998 when he approached the lawyer about a DuPont landfill near his property that he believed was leaching chemicals and poisoning his cows. Tests later showed the landfill was a dumping ground for PFOA, a common PFAS chemical.

In 2011, after painstaking investigation, scientists found a “probable link” between PFOA and testicular cancer, thyroid disease, high cholesterol, kidney cancer, pre-eclampsia, and ulcerative colitis. The findings sparked over 3,500 lawsuits that ultimately cost DuPont US\$750 million in settlements.

Finally, in April 2024, the US Environmental Protection Agency issued stringent drinking water regulations for six

PFAS, including limits of 4 parts per trillion for PFOA and PFOS.

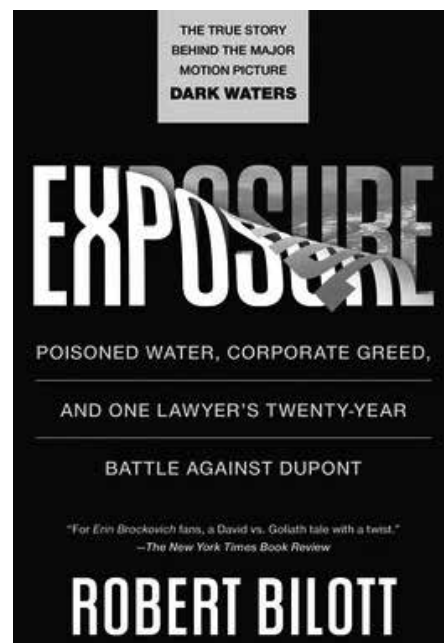
In Canada, there has been little progress toward controlling PFAS, though this may be changing as the Province of BC launched a class action suit against PFAS manufacturers in June 2024. Unfortunately, BC continues to subsidize heat pumps containing PFAS refrigerants, even though alternative refrigerants are available.

Bilott sees “history repeating itself” with the lack of regulation over PFAS in refrigerants in heat pumps and air conditioning units.

Fluorinated gases are already a significant source of PFAS emissions, accounting for 63% of all PFAS emissions. Within this category, the use of Hydrofluoroolefins (HFOs) has been steadily growing, increasing from 6% to 24% of total fluorinated gas volumes between 2016 and 2019. HFOs are marketed as a low-global-warming potential alternative to hydrofluorocarbons (HFCs).

As HFO use spreads, another PFAS compound, trifluoro acetic acid (TFA), has become omnipresent in the environment. Switching to HFOs has caused TFA levels in surface water to skyrocket by up to 250 times previous levels.

Safer alternatives such as ammonia, hydrocarbons, and carbon dioxide could, with proper regulation, replace the use of



these PFAS-containing fluorinated gases. These alternatives, already common in Europe, are well-established and readily available.

While the transition to natural refrigerants presents a viable solution, Dr. Jonatan Kleimark, head of corporate sustainability at ChemSec, emphasizes the urgent need for legislative action to speed the adoption of safer alternatives.

“Legislation is the best way to ensure that fluorinated gases are phased out. Switching to natural refrigerants is a win-win situation since it would reduce PFAS pollution and help global decarbonization efforts at the same time,” Kleimark said.

Blaise Salmon is a researcher in Victoria, BC.

STIKINE ODYSSEY

FROM ADVENTURE TO ACTIVISM WITH THE GREAT RIVER

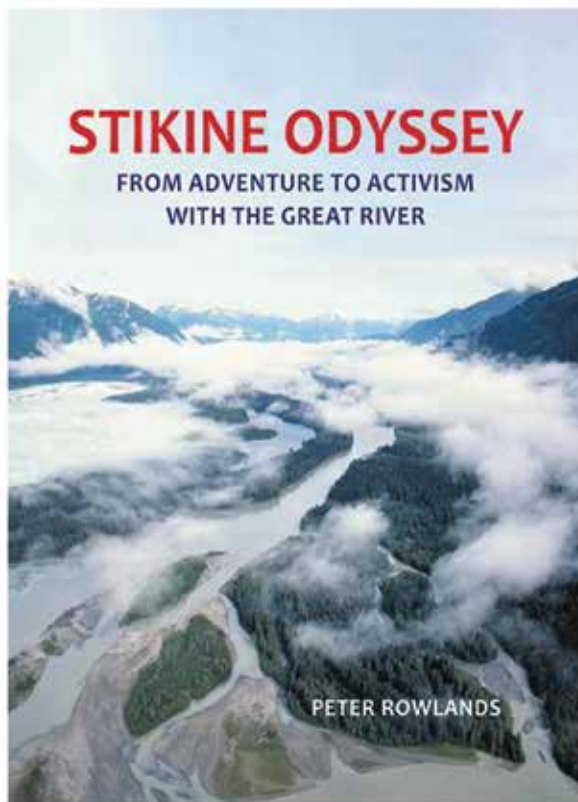
by ■ Peter Rowlands

Photographer ■ Gary Fiegehen

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**ABOUT THE BOOK**

September 1979. When thirty-something Peter Rowlands loaded up his Landcruiser and took canoe “Dimples” for a paddling adventure in northern BC’s backcountry, he never expected one river—Stikine—would radically change the course of his life. Rowlands became so enchanted by this 640-kilometre stretch of wild beauty, he joined the ranks of citizens calling for protection of the Stikine River, its watershed, and its Indigenous communities. Facing layers of bureaucracy and the cavernous pockets of big business, Rowlands found himself tangled in a multi-decade morass, where money always seemed to eclipse mother nature. Written to highlight the importance of healthy ecosystems and stressing the importance of fresh water to global health, *Stikine Odyssey* exposes questionable relationships between government and industry in hopes of furthering awareness and encouraging improvement.

Stikine Odyssey: From Adventure to Activism with The Great River is a story of complexity, evolution, and staggering beauty, much like the river itself.

ABOUT THE AUTHOR AND PHOTOGRAPHER

A career aviator, Peter Rowlands was an avid paddler and skier until artificial leg joints helped transform him into a dedicated cyclist and storyteller with four self-published books now on his resume, along with multiple contributions to aviation magazines. By combining aviation and camping adventures, Peter happily claims to have lived in every province and territory of Canada. He currently resides north of Toronto with his best friend and reluctant critic, Susan.

A Ryerson trained photographer introduced to the Stikine River by the author in 1982, Gary Fiegehen continued to focus on the people and landscapes of British Columbia, publishing seven books, including *STIKINE: The Great River* (1991), while working with various First Nations, particularly the Nisga’a during their successful efforts to attain the first modern-day treaty in the province. Until his passing, Gary lived in Vancouver with his partner Sara.

NON-FICTION

Stikine River, Ecology of Rivers,
Environmental Awareness and Public Participation,
Paddling Adventures

220 pages | B & W | 8 x 10 inches

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WAR/PEACE



When we speak of war, the scenes we picture are far away. We can almost overlook the recent history of violent conflict at home. Those are wounds that have not yet healed, as shown by the violence all around us, so constant that it's nearly normal: the war against nature, the war on women, the segregation of the poor and exploited, enforced at gunpoint.

We would rather not think about the actual cost of material goods like rare-earth minerals and tropical fruit. The price of oil is measured in more than dollars and degrees of climate change – it's human and non-human lives, scorched earth and ash.

War is the foundation of the modern economy and the nations we occupy. But it's not inevitable. When we look beyond the histories that were written by the victors, we can glimpse places and times governed by collective survival, mutual aid, and cooperation. The potential for a just, harmonious society is there, waiting, like a seed sleeping in the bloody ground.

The Proceeds of War

Financial, ecological, and climate costs

by Delores Broten

In 2023, global military expenditures were estimated to be around \$2.4 trillion (\$2,443 billion), according to the Stockholm International Peace Research Institute.

Meanwhile, a 2024 report commissioned by the International Chamber of Commerce estimates that climate-related extreme weather events have cost the global economy more than \$2 trillion over the past decade.

Writing about US military spending in *The Guardian* in December 2024, US Senator Bernie Sanders noted that “Congress will overwhelmingly pass the *National Defense Authorization Act*, approving close to \$900 billion for the Department of Defense. When spending on nuclear weapons and ‘emergency’ defense spending is included, the total will approach \$1 trillion.” Sanders went on to note the levels of extreme poverty in the USA: “We have one of the highest rates of childhood poverty of almost any developed country on Earth, and 25% of older adults are trying to survive on \$15,000 a year or less.” Meanwhile, a large portion of the Pentagon budget goes to a handful of huge and very profitable defense contractors like Lockheed Martin, RTX, General Dynamics, and Northrop Grumman.

In Canada, military spending amounted to \$28.8 billion for 2024. Veterans Affairs Canada’s \$6.2 billion should also be added to that total.

Pain and suffering

But the cost goes far beyond dollars – the pain and suffering represented in that Veterans Affairs budget line item, for example. That in addition to extreme social impacts around the world, such as those on the Inuit: “The DEW [Distant Early Warning] Line – the biggest military project in Arctic history – played a major role in the transformation that eventually tied the Inuit to a wage economy and sedentary lifestyle. It was a fast, traumatic shift that left deep social scars, including alcohol-related violence.” (*Toronto Star*, August 2012).

Marshall Islanders, displaced by atomic bomb tests, are another testament to the social costs – without even going into the lost lives and lost loves, the wounded soldiers and civilians, the displaced peoples – all amounting to untold misery around the world.

Ruined soil, water, air

Then there’s the 40 million kilos of contaminated soil left by the DEW Line stations in the Canadian Arctic. The US Defence Department and the Canadian military have cleaned up the major sites but Aboriginal Affairs and Northern Development has spent a further \$82 million cleaning eight of the smaller sites. Stories of contamination and illness from military activities abound, from the dioxin-soaked fields of Vietnam to the depleted uranium shells kids play with in Iraq.

The world wheat basket of Ukraine – that marvellous rich black *chernozem*, one of the best soils in the world, is now mined and littered with military waste.

Groundwater has been contaminated at hundreds of US military bases and there is no reason to think those bases are unique in the world. Contamination can come from benzene, lead, trichloroethylene and many other harmful chemicals, but PFAS contaminations are the most common.

But all that pales compared to the absurdity of carbon pollution from military activities.

Carbon emission reporting from military sources is voluntary under the United Nations Framework Convention On Climate Change. A handful of countries – Germany, the United States, the United Kingdom, Norway – do report, but data is spotty. Estimates suggest that the world’s militaries are responsible for 5.5% of global greenhouse emissions from their regular activities, not including the emissions from fighting itself, which add up to hundreds of millions of tonnes of carbon dioxide equivalents.

The proceeds of war are very profitable for the corporations, and for the workers making the weapons. But the costs in grief and pain, the despoiled lands, the contaminated waters, and the polluted air remain for all creatures to pay.

The Drums of Peace

Laying the groundwork for a new peace movement

by Zoe Blunt

In November 2024, a group of West Coast residents boarded a “Peace Train” from Vancouver to Ottawa to deliver a message to Parliament: a petition calling on Canada to establish a Center for Excellence in Peace and Justice.

When the Via Rail train pulled into Ottawa, the group was greeted by a welcoming party and a reception with a dozen Members of Parliament from all four parties. Courtenay-Alberni MP Gord Johns organized the reception and presented the petition in the House of Commons.

Sally Gellard, a *Watershed Sentinel* director, was among the 40 Peace Trainers. She reports, “One MP told us, ‘You have put peace back on the agenda. Thank you for coming to Ottawa.’”

Groups that supported the tour included the Women’s International League for Peace and Freedom, Canadian Voice of Women for Peace, World Beyond War, and the interfaith human rights organization KAIROS. Gellard says organizers rallied people across the country. “If we stopped at a little town like Sioux Look-

out at 8 am, there would be people there with signs that said, ‘Go Peace Train!’”

Official discussion about the Peace Centre was suspended when Parliament was prorogued in January. Bernadette Wyton, a member of the organizing committee, says, “A government response is required when the House reconvenes again.”

If approved, the new Peace Center would carry on the mission of the Lester B. Pearson Canadian International Peacekeeping Training Centre, a non-profit institution



that opened in 1994. The focus would be “research, education and training in conflict resolution, diplomacy, and peace operations for Canadian civilians, police, military personnel, and the international community,” the petition says.

Losing the centre

The gutting of Canada’s peacekeeping mission and the closure of the Pearson Centre in 2011 were a great loss to the world. The centre was named for the prime minister who won the Nobel Peace Prize for helping establish a UN peacekeeping force during the Suez Crisis of the 1950s. Trainees came from around the world to learn de-escalation strategies. It supported over 100,000 Canadian peacekeepers who monitored conflict zones and maintained ceasefire agreements in a dozen countries.

But in the mid-1990s, news of the extreme brutality Canadian officers inflicted on Somali civilians, including children, tainted the peacekeeping program and undermined its mission. The program has since been reduced to only a few dozen peacekeepers.

Still, Canada is morally obligated to advocate for peace. The Trudeau government is calling for a ceasefire and humanitarian aid to Gaza, but it has also supplied military goods to the region, like parts used in the Lockheed Martin F-35 jets currently deployed in Gaza, according to international humanitarian organization Oxfam.

Cultural obstacles

The grim truth is that violence works – at least in the short term. Wars of aggression are shockingly effective at seizing land, controlling resources, and silencing ideological enemies. In the long run, though, the backlash always comes: retaliatory

It’s not a lack of knowledge that prevents us from pursuing a peaceful world; it’s a lack of political will.

violence, a radicalized populace, and more wars.

People can be deeply divided along the lines of class, race, religion, and nationality. Observers recognize the precursors of war and genocide: dehumanizing enemies, labeling and monsterring human beings. It’s not a lack of knowledge that prevents countries from pursuing a peaceful world; it’s a lack of political will.

Leaders whip up nationalistic war rhetoric when they need a boost in popularity, a diversion, or a scapegoat. Those in power are invested in war, with governments and leaders propped up by military force and profits from the arms trade.

In the face of these obstacles, brokering peace between nations seems like an impossible dream. But it’s more urgent every day. We can start by defining the first steps that eventually will make it possible to wage peace instead of war.

Waging peace

We can study societies and eras that were relatively peaceful and stable, like the 250-year-long Tokugawa period in Japan. There are lessons to be learned from the Iroquois Confederacy in eastern North America; a social order based on principles that the US Constitution later adopted. The natural world shows us hundreds of examples of cooperation and symbiosis between species.

Consider the times peaceful action defeated tyranny, like the first People Power Revolution in the Philippines. Hundreds of thousands of civilians surrounded the palace for days. The army refused orders to open fire on them, instead abandoning their tanks and machine guns. President Marcos and his family were forced to flee by helicopter.

Closer to home, we have the examples of peaceful civil disobedience, pipeline blockades, and mass arrests to protect ancient forests. People who refused to stand aside and allow ecosystems to be destroyed, even when ordered at gunpoint. They were arrested, beaten, pepper-sprayed, and worse, while protecting the network of life.

In his latest book, *The Peace: A Warrior’s Journey*, Canadian humanitarian Roméo Dallaire writes, “I have spent years of my life reaching for something more – a way to bring true and lasting peace. A revolutionary strategy for conflict prevention. A covenant of respect for the individual human being, instead of the nation-state. A shared understanding that engages all parties, from community groups to international bodies, from pulpits to command posts. An ensemble solution that reflects our increasingly borderless existence on this planet, where we are all equally vulnerable to climate change at the largest scale and a virus at the smallest.

“We need strategic local and global leadership to actively predict and prevent problems before they become catastrophes,” Dallaire said. “Only in this way can we prevent suffering and insecurity and look toward a state I call The Peace.

“Peux ce que veux.” (Where there’s a will, there’s a way.)

The Smallpox War

The brutal beginnings of a British colony

by Zoe Blunt

Many in British Columbia cling to the belief that a peaceful transfer of power in the mid-1800s transformed Indigenous lands into a British colony.

However, both the written record and the oral histories of many Indigenous peoples tell a different story.

In the 1850s and 1860s, on Vancouver Island and elsewhere on the coast, British colonists took advantage of disaster while seizing Indigenous land and crushing Indigenous resistance. In 1859, the colony's first governor, Sir James Douglas, warned it was "unreasonable and hopeless to expect any change in the ideas and minds of savage races." A year later, he declared that "persuasive and gentle means" would not be enough to establish British authority.

When a smallpox epidemic struck Vancouver Island in 1862, colonial authorities set in motion a plan that led to the deaths of thousands. By then, European settlers had occupied Lekwungen territory and named it "Victoria" after their queen. The newly-appointed Governor Douglas and a small army of police had forced the Songhees people in the area to move their villages to small reserves. Meanwhile, access to European trade goods drew Indigenous people from all over the coast to surround Victoria with ad hoc communities, governed by their own laws, that often outnumbered the colonists.

Smallpox was endemic in Europe, but unknown in North America before European immigration and trafficking of enslaved people from other continents. Victoria's newspapers first reported smallpox cases on March 28, 1862 among children at the Songhees village. The official record blames an infected passenger who got off a ship from San Francisco and visited the Songhees Reserve.

The epidemic would have been stopped in its tracks if Governor Douglas had taken the obvious step of quarantining the victims. Instead, records show the governor left the infected children in the close quarters of their family homes without medical care.

As the disease spread through the Songhees Reserve, he ordered the police to drive other Indigenous groups from their settlements onto the reserve at gunpoint, burning their homes as they went and forcing healthy people into close contact with the deadly disease.

At the same time, authorities endeavoured to safeguard the health of the settlers by vaccinating almost all of them immediately. This was effective, as the *Daily British Colonist* reported in mid-May: "So far as we can learn, there are no white persons afflicted with small pox in Victoria and only one at the hospital."

But few Indigenous people were vaccinated, and those few received vaccines that were ineffective at best. They were not provided with medical care; a "hospital" established on the reserve was little more than a warehouse for the sick and dying. The bodies spread further contagion on the reserve, as the authorities refused to bury them.

At the height of the epidemic, between April and June 1862, the Police Commissioner made several "sweeps" through Indigenous communities, moving large groups of people from one area to another before expelling them entirely and burning their homes. This ensured that "every two weeks, a new wave of infected natives fleeing Victoria would wash up the coast and increase the risk of new epidemics at every locality," as Tom Swanky writes in *The True Story Of Canada's "War" of Extinction on the Pacific*.

On April 28, the police broadcast their first expulsion order: "All Indians living within the limits of the town, who do not live with whites, have been notified to leave for the Reserve or the huts occupied by them will be pulled down about their ears. The gunboat Grappler arrived in the harbor last evening to be on hand," wrote the *Daily British Colonist*.

The *Victoria Daily Press* reported May 28 on the Police Commissioner's command for "the immediate ejection of all the aborigines living anywhere in the vicinity of white settlements ...

[W]e may expect three days hence not to have any members of the native tribes in the streets of Victoria.” The police again burned Indigenous homes and possessions so the owners could not return to them.

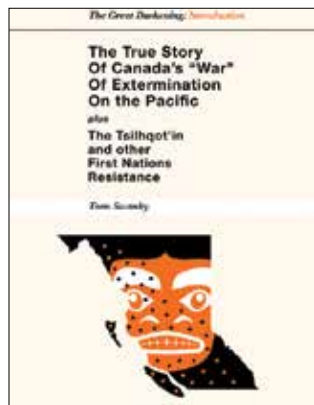
Haida people were the last to be expelled in late May. Many of them had fallen ill, and on June 22, 1862, the *Colonist* reported that “Fully 75 per cent of the Haida that left Victoria are said to have perished from the disease.”

Another *Colonist* news report stated bluntly: “We should not be in the least surprised if the disease were to visit and nearly destroy every tribe between here and Sitka.” Indeed, when Indigenous people fled to their communities along the coast, the epidemic came with them, with devastating consequences.

Approximately 14,000 people – almost all of them Indigenous – died during the epidemic of 1862-1863.

There were some efforts to mitigate the tragedy. A few white settlers attempted to shelter native people by hiding them in their homes. In parts of Washington state, Indigenous people were given proper vaccines. Indigenous leaders at Alert Bay set up a quarantine zone on a nearby island for visitors and residents fleeing Victoria, which protected the community from the worst of the epidemic.

In 2018, Prime Minister Justin Trudeau exonerated six Tsilhqot’in chiefs executed in 1864 by colonial authorities during the Chilcotin War. The chiefs were publicly hanged for killing white colonists who they saw as invaders deliberately spreading smallpox to Indigenous settlements. In the spirit of Truth and Reconciliation, we may one day see an apology for the brutality of British colonial authorities during the smallpox epidemic.



Our thanks to Tom Swanky for his extensively-researched book *The True Story Of Canada's "War" of Extermination on the Pacific* and *The Smallpox War Against the Haida*, available at www.shawnswanky.com.

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Coming Home to Grandmother's Garden is a beautiful film about Garry Oak ecosystems & food security from a Cowichan First Nation perspective.
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SAT. FEB. 1st * CLOSING NIGHT FILM
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Fish Farm Fight

First Nations groups spar over ocean-based aquaculture

by Desiree Mannila

A battle of opposing views on fish farms threatens to boil over as the Coalition of First Nations for Finfish Stewardship (FNFFS) takes aim at a group of wild salmon advocates representing over 120 First Nations that are campaigning to remove fish farms from the ocean.

In the midst of this political skirmish, a disastrous fuel spill at an ocean-based fish farm is shining a spotlight on the risks posed by the industry.

Tensions erupted last fall as fish farm advocates and wild salmon protectors traded barbs at separate press conferences held on November 28, 2024 in Ottawa and December 4, 2024 in Vancouver.

In Ottawa, the BC Salmon Farmers Association and FNFFS joined forces to denounce the proposed 2029 phasing out of ocean-based open-net fish farms, citing fears of economic loss and condemning “activists” pushing for the ban.

Isaiah Robinson, FNFFS representative and Chief Councillor of Kitasoo Xai’Xais First Nation, told the media, “People [who] are anti-salmon farming do not run salmon farming in our territories and are actively impeding on the sovereignty of dozens of First Nations across the BC Coast.”

Indigenous backbone

In Vancouver, the First Nations Wild Salmon Alliance came together with the

Gigame’ (hereditary chiefs) to refute the FNFFS’ rhetoric. “We have representation from Musgamakw-Dzawada’enuxw, Kwikwasutinuwxw Haxwa’mis, Gwawa’enuxw, ‘Namgis, Mamalilikulla, Wuikinuxv, Tlowitsis, Liḡw’ildax”. We are here to squash some of the reports that we have been hearing – recent statements portraying our people as radicals,” said Gigame’ K’odi Nelson, opening the press conference. “You can see our hearts and spirits come from a pure place that has been bestowed on us by our ancestors, to look after our salmon.”

Historically, many of the chiefs’ parents and grandparents fought against colonial control and assimilation tactics stemming from the implementation of destructive legislation such as the *Fisheries Act* and *Indian Act*. These Acts serve settler interests and industry while starving communities by restricting traditional harvesting and trading.

Holding the *ḷaḷkwa* (coppers) inherited from their forefathers, the *Gigame’* evoked grim parallels to their ancestors who stood in unity for Indigenous title and rights. The *ḷaḷkwa* symbolize the wealth and status of their family, upheld through generations of potlatch ceremonies and dictated through the unique name and history of each *ḷaḷkwa*. The government confiscated every copper it could find until the 1950s, but those that remain are powerful ceremonial and cultural treasures of the Kwakwaka’wakw people today.

Robert Chamberlain, chair of the First Nations Wild Salmon Alliance, explained, “There are coppers with our hereditary chiefs. They have fulfilled their obligations in the culture of our people to stand up and look after our territories for generations to come.”

Fish farm fuel spill

Days after the two competing press conferences, Norwegian fish farm giant Grieg Seafood reported nearly 8000 litres of diesel fuel spilled at its farm in Esperanza Inlet, Nuu-chah-nulth territory, near Zeballos, Vancouver Island. Grieg said the spill was caused by human error resulting from an unattended fuel line left flowing overnight. Clean-up efforts were hampered by large tidal swings, storms, and geographic challenges.

“I’m extremely upset that these fish farms are still even here despite our efforts to be rid of them. We are always force-fed these decisions to keep fish farms in our territory but we’re not going to tolerate that anymore,” says *Tyee Ha’With* (Chief) Jordan Michael of the Nuchatlaht First Nation. Grieg Seafood operates ten ocean-based open-net farms in the territories of the 14 Nuu-chah-nulth Nations.

“I fish out here regularly and I’m now afraid to eat anything,” says Nuchatlaht Guardian and Fisheries Technician Judae Smith. “I’m heartbroken thinking about our orca, Brave Little Hunter (k’iisahi’is), potentially swimming through this.”

Ehattesaht First Nation announced a clam-digging closure in response to the spill. “I am sure I will get angry next, but for right now, I am sad that all of this fuel is out there sloshing around our territory, washing up on our beaches,” says Tye Ha’With John Simon. “Our people use these beaches continually and we have for thousands of years. It is where we get our food.”

Impacts of salmon farming

Human error is not the only threat posed by fish farms. Aquaculture causes nutrient pollution through waste from the fish such as feces, feed, and chemicals, leading to oxygen depletion and eutrophication (high nutrient density); which can cause dead zones and algae blooms.

Salmon pens are also a breeding ground for viruses such as piscine orthoreovirus and infectious hematopoietic virus, as well as sea lice. In 2018, farms introduced the Hydrolicer, following a study from DFO that indicated that farmed salmon were becoming resistant to the feed-based treatment. Hydrolicers have demonstrated a significant impact on wild aquatic life, with an estimated loss of over 800,000 wild fish in 2022.

“To categorize [hereditary chiefs] as ‘activists’ is completely and utterly **offensive**.”

Fish aren’t the only victims of mortality due to the farms. Klemtu, Tofino, and Nootka Sound farms are linked to the injuries and deaths of at least five humpback whales between 2013 and 2018. Between 1990 and 2022, nearly 8000 harbour seals, California sea lions, and Stellar sea lions either drowned or were gunned down by fish farmers. Mortality rates for birds and sharks are not reported; however, photo evidence indicates they, too, face widespread injury and death at fish farms.

Calls for reconciliation

At the Vancouver conference, Chamberlain announced a chance for “province-wide reconciliation, province-wide food security, an effort that will crystallize action on the Truth and Reconciliation Commission’s calls to action by restoring an opportunity for us to rebuild our culture, our traditions and the values

and relationship we have with the lands.”

Chamberlain shared that the group is united in the fight against aquaculture, recognizing that the protection of wild salmon goes beyond the “nearly 130 First Nations” working to remove open net pen fish farms from the coasts of BC. “The work we pursue is to protect wild salmon, not just for our people, but for all Canadians. We are not the only ones who have values, traditions, and culture relating to the catching and harvesting of salmon.”

Misleading information

Following the Vancouver conference, Tlowitsis Councillor Dallas Smith, a FNFFS spokesperson, took to social media to berate the Wild Salmon Alliance. “We can’t all feed our families off rich activists!” Smith wrote.

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Chamberlain responded, “They [FNFFS] continue a narrative that First Nations that do not support the open-net pen fish farms are activists misled by millionaires. To categorize [hereditary chiefs] as ‘activists’ is completely and utterly offensive.”

The pro-fish farmers also raised concerns about loss of employment if BC fish farms were to shut down completely, rather than transitioning to land-based operations. Robinson declared, “Without salmon farming, our coastal communities will face generational trauma.”

Grieg Seafood won’t say how many Indigenous people it employs, if any, but Mowi West, a subsidiary of another Norwegian corporation, reports that out of an estimated 300 employees, “almost 25%” are Indigenous. Meanwhile, Cermaq, a billion-dollar multinational also based in Norway, reports 41 workers who identify as Indigenous out of “over 300 employees” on Vancouver Island.

Robinson invoked the spectres of suicide and addiction in First Nations communities as arguments for keeping fish farms in the ocean. But Chamberlain rejected

his stance, saying, “We find it very distasteful to use that as a leverage point with the government to advance the open-net pen fish farms.”

New opportunities for the future

Chamberlain highlighted initiatives to facilitate the health and wellbeing of their communities, and to “reestablish connection to land, language, culture, and traditions.” One such initiative is the Nawalakw Healing Society, formed by the cumulative efforts of the four tribes of Kingcome Inlet. The society provides a culture and language camp and is developing a wellness centre, healing village, outdoor facilities, continued language and training certification, housing, and building retail space. Nawalakw provides hybrid long-term employment opportunities and seasonal employment for students and youth.

Chamberlain shared news of other upcoming economic opportunities for coastal First Nations such as land-based aquaculture and processing seaweed. “This allows a community that should participate in the growing, harvesting and processing [of seaweed] to realize the

full value chain, the pharmaceuticals, the makeup, the collagen, the protein, and the iodine. This is what we have advanced to the task force as a solution for employment.”

Nelson added, “We’re going to be speaking about transferring tenures from fish farm operations to seaweed operations and find support to enable this emerging technology for the benefit of First Nation communities, primarily where we can see prosperity in the full value chain, realized in an industry that dominates the aquaculture industry globally. I have read that 50% of aquaculture across the globe is seaweed, and only 2% of that comes from North America. That, my friends, is opportunity.”

Watershed Sentinel reached out to FNFFS, BC Salmon Farmers Association and Mowi Canada but did not receive a response.

Pax̱ala, Desiree Manila, is a proud member of the Da’naxda’xw/Awaetlala Nation and staff reporter for the *Watershed Sentinel*.

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Us Vs. Them

Understanding the roots of political polarization

by Richard Heinberg

July 13, 2024, Butler, PA: Former president and current presidential candidate Donald Trump survives an assassination attempt at an election rally; the gunman and a bystander are killed, with two others critically wounded.

May 16, 2024, Handlova, Slovakia: Slovakian Prime Minister Robert Fico is seriously wounded in a politically motivated assassination attempt.

May 3, 2024, Dresden, Germany: Matthias Ecke, a leading socialist member of the European Parliament, is brutally attacked and seriously injured while putting up campaign posters. This follows other recent physical assaults on German politicians.

January 8, 2024, Guayaquil, Ecuador: masked men invade the set of a live broadcast on a public television channel waving guns and explosives; the president issues a decree declaring that the country has entered an “internal armed conflict.”

There are nearly 200 countries in the world, and there’s seemingly always political conflict in at least one of them. So, a few examples don’t necessarily indicate a general trend. However, experts say political violence is tied to polarization – the divergence of political attitudes away from the center and toward ideological extremes. And poll-based studies show that politics are becoming more polarized worldwide.

Polarization drivers

The most comprehensive recent book-length discussion of political polarization worldwide is *Democracies Divided: The Global Challenge of Political Polarization*, by Thomas Carothers and Andrew O’Donohue. A certain amount of polarization is normal and healthy in a modern democracy, in the authors’ view. Extreme polarization occurs when the usual spectrum of political opinion coalesces into just two primary ideologies that harden into identities adopted by opposing blocs of people, each regarding the other with contempt and fear. Extreme polarization is also typically sustained beyond a specific election, and it “reverberates throughout the society as whole, poisoning everyday interactions and relationships.”

In a previous article, I discussed the structural-demographic theory of Peter Turchin and Jack Goldstone, based on their statistical analysis of data from hundreds of historical societies. Turchin and Goldstone claim to have found a pattern: rising inequality typically leads to social instability. As people on the bottom rungs of the social ladder grow more miserable, they lose faith in the system and in the elites who run it.

Then, as social cohesion declines, a second and related dynamic, intra-elite competition, typically stokes more polarization. Over time, elites tend to skim off increasing amounts of wealth for

themselves and their cronies, leaving less for everyone else and for society’s overall maintenance. As higher status yields tangible benefits, more people inevitably want to ascend the social ladder (in contemporary terms, they seek to become lawyers, politicians, CEOs, entrepreneurs, and investment managers). After a few decades, there come to be far more elite aspirants than elite positions available. Elite wannabes then divide into factions. Once that happens, defeating an opposing faction may become a higher priority for those at the top than actually trying to solve society’s problems.

When elites gain more from fighting one another than from solving society’s problems, those problems tend to get bigger and more numerous. And so, elite factions have more and bigger problems to blame on their rivals. The society as a whole has entered a self-reinforcing feedback loop of political-social polarization and disintegration.

In his book *Why We’re Polarized*, Ezra Klein describes this endgame in terms of contemporary American politics:

“We are so locked into our political identities that there is virtually no candidate, no information, no condition that can force us to change our minds. We will justify almost anything or anyone so long as it helps our side, and the result is a politics devoid of guardrails, standards, persuasion, or accountability.”

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The polarized States of America

In the 1980s, Republican-led tax cuts for the wealthy, along with increased immigration and loss of labor union membership, resulted in falling real wealth and income share for wage earners. Meanwhile, the number of Americans seeking law degrees soared, as did the number of millionaires and, eventually, billionaires. The Republican Party had for decades represented the interests of the wealthy while the Democratic Party championed the cause of wage earners; but, under the Clinton administration in the 1990s, Democratic Party leadership began instead to court successful, educated urbanites, including entertainment and technology elites. Wage earners, with diminishing representation in government, lost ever more ground.

Today, according to Turchin's analysis, socio-political instability indicators are as strong as during the lead-up to the American Civil War.

Into this maelstrom descended billionaire Donald Trump, announcing his presidential candidacy in 2015. As candidate and president, Trump reshaped the Republican Party as a personality cult, and, with his rhetoric of economic populism, has succeeded in attracting more Black, Latino, and union-member voters. Trump encouraged his followers to think of Democrats as not just political rivals, but enemies and degenerate human beings. Meanwhile, Democrats viewed Trump as an aspiring dictator, and his supporters as cultic dupes.

Two paragraphs in a 2020 essay by Jack Goldstone and Peter Turchin sum up the political dilemma of the US in the current decade so revealingly that they deserve to be quoted in full:

We should spend less time trying to convince one another, and more time engaging our communities in participatory projects.

“American politics has fallen into a pattern that is characteristic of many developing countries, where one portion of the elite seeks to win support from the working classes not by sharing the wealth or by expanding public services and making sacrifices to increase the common good, but by persuading the working classes that they are beset by enemies who hate them (liberal elites, minorities, illegal immigrants) and want to take away what little they have. This pattern builds polarization and distrust and is strongly associated with civil conflict, violence and democratic decline.

“At the same time, many liberal elites neglected or failed to remedy such problems as opiate addiction, declining social mobility, homelessness, urban decay, the collapse of unions and declining real wages, instead promising that globalization, environmental regulations, and advocacy for neglected minorities would bring sufficient benefits. They thus contributed to growing distrust of government and ‘experts,’ who were increasingly seen as corrupt or useless, thus perpetuating a cycle of deepening government dysfunction.”

In short, the United States is now disunited to a greater degree than at any time in living memory. We are two Americas nearly at war with each other. Political scientists speculate whether the country's current extreme polarization could provoke an actual civil war. The more likely

outcome, according to some historians, is “civil war lite” – a general increase in political violence similar to Italy's “Years of Lead,” a roughly 15-year period starting in 1969, when extreme left and right militias perpetrated a series of bombings and assassinations. Virtually all informed observers say that extreme polarization in America is unlikely to end soon, or entirely peacefully.

Reversing extreme polarization

Other than voicing support for institutional and economic reforms, what can individuals, households, and communities do to defuse the polarization bomb? An obvious remedy is to find ways to engage with one another across party lines. Some volunteer-led organizations (the largest of which is Braver Angels) encourage their members to reach out to neighbours with differing political beliefs and explore what they have in common.

Recent research has found that, despite increasingly politically polarized views about climate change in many countries, people across the political spectrum were willing to engage in the climate-mitigating action of planting trees. And the conservatives who took part in tree planting were then more likely to support climate policy efforts. This suggests we should spend less time trying to convince one another to change opinions that have already been shaped and solidified by political party rhetoric, and more time engaging our communities in participatory

projects that improve environmental and social conditions. Political deadlock on climate change can also be broken by citizen assemblies, with members chosen at random and tasked with making recommendations for local climate action.

In his book *Tribe: On Homecoming and Belonging*, Sebastian Junger cites overwhelming evidence that we humans have an evolved instinct to live in small, cohesive groups, and that conflict with an opposing group tends to make our own group cohere more fiercely (an observation epitomized in the title of another book, *War Is a Force That Gives Us Meaning*, by Chris Hedges). Can our species evolve past its entrenched in-group-outgroup social dynamics? In *Belonging Without Othering: How We Save Ourselves and the World*, John A. Powell and Stephen Menendian say that it can

When elites gain more from fighting one another than from solving society's problems, those problems tend to get bigger and more numerous.

and must. They propose that humanity adopts a paradigm of belonging that does not require an “other” to fight against. This would require building institutions that are participatory and non-hierarchical and adopting personal attitudes and practices that orient society toward a future of mutual respect, cooperation, and healing.

We live in turbulent times. There are three likely responses: choose sides and join the melee, try simply to survive tu-

mult without adding to it, or attempt to resolve turmoil by making peace. The last of these is the hardest. Getting past polarization will require many more of us to take that road less traveled.

Richard Heinberg is Senior Fellow of Post Carbon Institute, and is the author of fourteen books. This article is a shortened version of the original, which can be read in full at <https://richardheinberg.com/museletter-378-us-vs-them>.



Building Like Beavers

Wetland and ecosystem restoration inspired by nature

From BC Wildlife Federation

Beavers are more than symbols of a healthy ecosystem, they are also the engineers that create flourishing wetlands. Beaver dams help mitigate floods and drought by slowing runoff and storing water, and they help create crucial habitat for salmon, trout, and others.

But human interference has decimated beaver populations in the past century. In many places, they were completely wiped out by commercial hunting, habitat degradation, and development. Many landowners viewed them as pests. The consequence is disrupted surface water systems and landscapes that are less resilient to climate impacts.

That's why the BC Wildlife Federation (BCWF) launched its 10,000 Wetlands Project in 2022. The project aims to restore wetlands and riparian ecosystems across the province using low-tech, process-based restoration techniques – essentially, building imitation beaver dams called “Beaver Dam Analogues” (BDAs).

“Low-tech process-based restoration techniques take a leaf from the beaver’s book,” explained Geneva Bahen, BCWF’s Beaver Restoration Assistant. “Beavers are nature’s wetland stewards, and by working with their natural processes, we can restore ecosystems in a cost-effective and sustainable way.”

In 2024 alone, the BCWF constructed 71 BDAs across seven project sites, including dams in the Thompson-Nicola area,



near Squamish and Lillooet, in the East Kootenays, the Skeena Valley, and the Peace Valley. In each site, the imitation dams address urgent environmental challenges – drought, flooding, and habitat degradation – by mimicking beavers’ instinctive engineering skills.

“By replicating their dam-building activity through BDAs, we are enhancing stream complexity, raising water tables, and increasing resilience to disturbances such as drought, wildfire, and flooding,” noted BCWF project lead Jennifer Rogers.

BCWF-led training sessions have shared these skills in BC, Alberta, Washington, and Montana. The group presented its

findings at BeaverCON 2024, an international conference on restoration techniques inspired by beaver activity.

The project has forged partnerships with the Gitksan First Nation, Lower Nicola Indian Band, McLeod Lake Indian Band, Nooaitch Indian Band, Okanagan Nation Alliance, St’at’imc Nation, the federal Department of Fisheries and Oceans, and Ducks Unlimited.

For more info, visit www.bcwfwatershedteam.ca

Sued for Protesting

Canadian mining company targets Indigenous mother

by Max Wilbert

This is Bhie-Cie Zahn-Nahtzu, a member of the Reno-Sparks Indian Colony in Nevada; Te-Moak Shoshone and Washoe by blood. She is a mother of four, an artist, and a small-business owner. She is multi-talented as a seamstress, designer, and graphic artist.

Her art reflects her love for her cultures and native plants. She has a one-acre allotment on the Hungry Valley Indian Reservation and has turned it into a micro-certified wildlife habitat. She tends her flock of chickens and her organic garden and loves to spend her time with her hands in the earth, gathering and sharing seeds in an effort to give pollinators a safe and beautiful place.

Bhie-Cie first came to the land defense camp at Peehee Mu’huh (Thacker Pass) in 2021, visiting with her children and walking all across the land to see plant relatives and the night sky without light pollution. When asked why she joined the camp, Bhie-Cie said, “I’m just a Native mother who disagrees with the open pit mining. It’s not that I really wanted to go out there and be uncomfortable and worry about losing my freedom every day. But I was in a unique position, being self-employed, that I was able to go.”

Now, Bhie-Cie is being sued by Lithium Nevada Corporation, a subsidiary of Vancouver-based Lithium Americas. The company is seeking money from Bhie-Cie and her co-defendants.



©Jarrette Werk (Aaniiih & Nakoda) Underscore Native News - Report for America

Here’s Bhie-Cie’s statement in her own words:

“I grew up with my traditional grandparents who were boarding school survivors. They gave me a strong background in being Native and loving the land and the concept that we are all related.

“When I was out there [at Peehee Mu’huh - Thacker Pass], I was uplifted by a lot of people. I had neighbors and friends sending me five or ten dollars, saying, ‘Hey, I support you,’ or show-

ing up in my driveway and dropping off wood, water, and supplies to take out to the other land defenders. We were there in a representative role. There were a lot of people who were out there in spirit but only a few of us were lucky enough to be able to coordinate our lives to physically be out there.

“I’m not a materialistic person, so the lithium mine can’t take a lot of things away from me. And as I understand, a SLAPP lawsuit is trying to bring me embarrassment. But I have a pretty good sense of humor and I embarrass myself on purpose all the time, so I guess they can’t even shame me.

“I’m not capable of engaging the legal fight, wading through stacks of paperwork full of legal jargon... Supporters can help by contributing to our legal fund, sign the petition, learning how mining harms communities, and becoming more aware of environmental injustices everywhere.”

For more information, visit www.ProtectThackerPass.org.

Max Wilbert is a community organizer, author of the Biocentric newsletter, and co-author of *Bright Green Lies*. <http://maxwilbert.substack.com>

Beauty and Loss

Coming to grips with a world of smog, fires, and pollution



©Kurayba

by Leif Gregersen

As a child, California seemed like a magical place. I took a trip to Disneyland by car from Edmonton with my family, and it seemed that if the money flowed freely, there was much fun to be had. But when I went back at age 19, I couldn't believe the difference a few short years made.

My travelling companion took me for a short hike under an overpass along a stream. The stream was so polluted it gave off the

rainbow colours of harsh chemicals. My first night down there, the smog was so thick you could see it hanging in the air between a streetlight and the ground. And though public officials swear the tap water is safe, for the first few minutes after you fill a glass, some kind of mineral in the water makes it so you can't see through it. My dreams of relocating to a scenic, beautiful part of the world that was full of opportunity were quickly changed to wanting to get back to Canada as soon as I could.

The Big Smog

When I was 18, I moved to Vancouver, known as Canada's prettiest city. Even when you are in a rough part of downtown, you can witness the beauty of the mountains on the North Shore. Everywhere you look there is something scenic. I loved being on the west coast, but there was a problem. Almost every day I would get headaches. Not serious ones, or migraines, but bad enough that I had to take acetaminophen with me every day.

It was a while before I learned why I was having these headaches. A year after moving to Vancouver, I successfully applied for a student loan to get my commercial pilot's license. I had been flying since age 12 when I was in Air Cadets, and this seemed like a dream opportunity.

A few days into my training, 5,000 feet above the city, I saw something that explained my headaches and nearly made me sick. Covering the downtown area of Vancouver was a thick, brown, greasy patch of smog. I had not yet been to California where it was worse, but up until that point I had thought Canada had dealt with its emissions problems, and that the people of Vancouver were steadfast in their preservation of ecology. I was aware of the *Clean Air Act*, drawn up by the government of Canada in October of 2006. The *Act*, which notes that Canadians rank air pollution among their primary environmental concerns, lays out short, medium, and long-term goals to address industrial pollution and emissions from vehicles and consumer and commercial products. It has a strategy to deal with indoor air as well. Somehow in Vancouver, it seemed the ecologists and others were missing the mark.

Before moving to Vancouver, I lived in Edmonton, which is again my home. Edmonton presents a paradox when one considers air pollution. According to the Alberta Regional Dashboard website, in 2023, 322,000 barrels of oil are produced per day. This is actually a decrease of 39.7% in the past five years.

It seems that in Alberta, we are addicted to oil and gas. For some time, people in Alberta have said that we need to stop relying on oil and gas, and that we must diversify our economy – not only to stop the harm that is being done, but also for times when the price of oil is low which leaves the Alberta economy in the lurch. We have issues here not only from drilling and refining, but also from harmful extraction processes like fracking, which uses and contaminates a great deal of our fresh water, along with other devastating impacts.

Jasper was the one place where my family got along the best. It was a place that made everyone happy.

Giant loop of problems

According to the UNESCO Ocean Literacy organization, eight to ten million metric tonnes of plastics end up in the ocean each year. This accounts for 80% of the pollution in oceans, and the plastics can take hundreds of years to degrade. Further, in our oceans, there are microplastics – tiny particles of plastic that can be eaten by marine life, accumulate in their bodies, and enter the food chain. UNESCO states that this pollution leads to dire consequences for the health of our planet and all its inhabitants.

The British Plastics Federation says plastic is one of mankind's most useful and durable inventions, and sadly, it is made from oil. In the refining process, crude oil is heated, then sent to a distillation unit. Here heavy crude oil separates into lighter components called fractions. A fraction called naphtha is a crucial compound in making plastic. More oil, more plastics, more microplastics and garbage in our oceans.

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While Edmonton's economy benefits from oil production, its inhabitants feel few of the more devastating effects. The Government of Canada is trying to set goals and limitations on oil and gas production, along with caps on fossil fuel production. But there is a lot of resistance from Alberta politicians. Alberta's Premier Danielle Smith stated that the emissions cap program, which would see oil production cut back 15 megatonnes by 2030, was a "misguided proposal that would only harm the Canadian economy."

The whole situation is a giant loop of problems. No one who is profiting from it wants to solve it. Global warming, largely caused by carbon emissions, is changing and even destroying some of our most critical ecosystems.

Fiery new world

It was early summer in 2023. I woke up and noticed there wasn't much daylight, despite the fact that it was past 10 am and the sun was up. A friend called and told me to go outside and look at the sun. I saw thick smoke everywhere and a dull orange disc where the sun should have been. This was the beginning of the destruction of millions of hectares of forest due to dry conditions, and one of Edmonton's worst times of air pollution. Though Covid had mostly ended, many people went back to wearing masks to protect themselves from the smoke.

In 2024, another tragedy struck, also a result of global warming and pollution. Jasper, a small picturesque town and tourist destination nestled in the Rocky Mountains, was almost completely destroyed by fire.



More oil, more plastics, more microplastics and garbage in our oceans.

Jasper was the one place where my family got along the best. It was a place that made everyone happy, and I felt a deep sadness each time we left to return home. Now, the one place in Alberta I loved the most is half destroyed and will never be the same.

According to Parks Canada, the damage from fires in the Town of Jasper and the surrounding area known as Jasper National Park was extensive. In the town, 30 to 50% of homes and other structures were destroyed, including two historical churches that had stood untouched since 1928.

Outside the town, an estimated 36,000 hectares of forest were destroyed in the fire. Fortunately, many of the larger animals in the park were able to outrun even the fastest moving flames, but all forms of wildlife will feel the effects of so much traumatic deforestation. It is feared that it will take decades for the damaged areas to return to their former glory, and at least ten years for them to return to being a functional ecosystem.

With the recent fire that have caused evacuation of Fort McMurray, Jasper, and Lytton BC, and the havoc created in those towns, we are seeing more and more situations of huge swaths of destruction due to dry fuel and hotter summers. In this time of fear of the future, loss in the past, and sorrow in the present, all I can think about is the grave responsibility I have.

One day soon, I must return to Jasper to spread my father's ashes where we spread my mother's. It will come with a period of sadness, the loss of two very wonderful, special people, and the memories of times we took our camper on the road to embrace nature and fearlessly experience the great outdoors. Except perhaps from the threat of nuclear war in the 1970s, we never imagined that humanity's lease on Earth could well be just as fleeting and short as our own individual limited time on this delicate and beautiful planet.

Leif Gregersen is an Edmonton-based writer, teacher, and public speaker who has written 12 books. <https://edmontonwriter.wordpress.com>.

Cleanup Coverup

Alberta regulator's tar sands claims don't add up: study

by Zoe Blunt

A new study reveals that the Alberta Energy Regulator's (AER) claims about tar sands cleanup successes are not supported by its internal documents, and the agency failed to publicly disclose hundreds of tar sands waste spills, according to CBC, CityNews, Global, and other media outlets.

Dr. Kevin Timoney, an ecologist with Treeline Ecological Research and a long-time tar sands researcher, analyzed a decade's worth of AER records on bitumen tailings spills. The agency reported that hundreds of spills resulted in "no environmental impact" and others were cleaned up with "perfect spill recovery" – but its own data did not back up those conclusions.

"AER's stated policy of 'routine inspections' following tailings spills is not supported by the evidence," says the report, which was published in December by the journal *Environmental Monitoring and Assessment*.

Tar sands tailings are the waste products left over after bitumen is extracted from the earth. Tailings consist of sand, silt, clay, water, bitumen residue, and chemicals. The bitumen extraction process creates an enormous amount of contaminated waste that is considered toxic to fish and other wildlife.

Timoney's study relied on records from a Freedom of Information (FOI) request in 2023, data from the Alberta Environmen-

tal Management System, and the AER's own field surveillance inspection system (FIS). The study concluded up to 96% of tailings spills never undergo any outside inspection, and the oil companies themselves report on the results of the clean-ups.

"The number of spills that are being reported by the AER is a great underestimate," Timoney said.

The agency's public database showed 514 spills, but field surveillance data and FOI documents found 475 additional spills, including tailings and bitumen discharges.

In one case, the AER's public database labelled the volume of a spill as 44 million litres, but internal records pegged the same spill at closer to 4.5 billion litres – 100 times larger.

"The reason given by the AER for reporting the incorrect volume [in the public database] was as follows: 'The volumes tab does not allow a number that high to be captured,'" the study reports.

"They really need to have a new regulator," Timoney said. "We can't fix the AER because it's controlled by the industry it's attempting to regulate."

In a statement to CityNews, the Ministry of Environment defended Alberta's oil sands monitoring system, saying the industry "is one of the most highly monitored in the world, and there are clear, mandatory processes in place to prevent spills and to respond quickly if unplanned releases do occur."

The AER withheld company names from its public records, forcing the study's authors to use comparative analysis from the Freedom of Information data to track down the corporations responsible.

Almost one-third of the total tailings spills are attributed to a single company: tar sands giant Suncor, which is responsible for almost half of the waste volume.



Wild Times A Big Deal

by Joe Foy

For over 30 years, I've advocated for protecting spotted owl forest habitat in the southwest mainland of BC, within day-trip distance of Metro Vancouver and the Fraser Valley. That's where more than half the people in the province live. Many of them oppose logging the remaining old-growth forest.

Decisions by elected leaders have gradually increased no-logging zones in the region. Protected spotted owl habitat now covers roughly 2000 square kilometres of forests in provincial parks and Metro Vancouver's drinking water supply drainages, and designated Spotted Owl Wildlife Habitat Areas like Chilliwack's Elk Creek watershed.

Governments designated these no-logging zones, but it was people who pushed their leaders into doing the right thing. But forest companies also had a plan for spotted owl habitat: logging as much and as fast as they can, with BC handing out logging permits for all of it.

In 2005, scientists were able to locate two dozen spotted owls. In 2011, fewer than a dozen were surviving in the wild. Now it's likely that only one wild-born spotted owl and a couple of captive-born spotted owls are still living in the forest, with 30 more in cages near Fort Langley. Scientists estimate 500 pairs of spotted owls and their young once inhabited the old-growth forests of southwestern BC.

But now, the federal government seems poised to finally step up – at the last possible moment – to enforce their *Species at Risk Act* on behalf of Canada's almost-gone spotted owl population.



The feds are ready to release their Spotted Owl Recovery Strategy that calls for doubling protected spotted owl critical habitat – and, most importantly, forest corridors between them. Sadly, too much old growth forest has been logged, so the strategy includes second growth forests old enough to become spotted owl habitat over the next 50 years, to help stitch the old growth forests back together.

Canada's recovery strategy for the spotted owl calls for a further 2,000 square kilometres of forests to be protected. Canada plans to work with BC and First Nations to eventually see more than 250 adult spotted owls living in the wild.

Will this cooperative plan save the owl? That depends on whether BC stops issuing logging permits for spotted owl crit-

ical habitat, now. It depends on whether spotted owls in the US find their way North into the habitat here. And it depends heavily on spotted owl biologists hatching baby spotted owls in Fort Langley, releasing them, and then helping the former captives survive in the wild.

One thing's for sure: Canada's plan to double spotted owl habitat protection is the largest forest preservation initiative ever in southwest BC. It's a big deal. And just like forest initiatives here in the past, it's going to take people to make sure our leaders do the right thing.

So roll up your sleeves. Lace up your boots. We got work to do.

Joe Foy is the protected areas campaigner for the Wilderness Committee.

Thank You!

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