Watershed Sentinel

Living Science Issue

December 2026
January 2027



35 YEARS ANNIVERSARY

Newsstand Price $4.95
Environmental news for BC & beyond

DROUGHT READY

FROM CRISIS RESPONSE TO COMMUNITY AND WATERSHED RESILIENCE IN BRITISH COLUMBIA

READ THE REPORT

BY POLIS WATER SUSTAINABILITY PROJECT & UNIVERSITY OF VICTORIA

poliswaterproject.org





Stein Valley gathering, 1985

Watershed Sentinel

Dec. 2026 | Jan. 2027
Vol. 36 No. 5

Features





Wild Salmon Surge

Hornby Island recently learned directly from Kwakwaka'wakw leaders about their years-long fish farm occupations.

Living Science

The problems caused by technology can't be solved by technology alone – what's needed now is intelligence. In these pages, we highlight pre-industrial knowledge and science that is properly scaled, intelligently located, and beneficial to the ecosystem.

Content

3,5 **News Shorts**
Flamingo riots, giant hero rats, and pipeline lawsuits abound

4 **Letters**
Our readers discuss going vegan and Carney's enviro blitzkrieg

6 **Kids for Climate**
After seven long years, the federal government is on trial

7 **Six Nations**
Theft of the Haldimand tract goes to court, 200 years later

8 **Eviction Ignored**
Shipbreaking continues unabated in Union Bay

9 **Forest Priorities**
Syilx Okanagan Nation calls for a halt to BC's logging proposal

10 **Nests at the Mill**
Pelagic cormorants make new homes at the Crofton Mill site

32 **Gratitude/Grief**
A violent death brings the living world into sharp focus

34 **Ode to Mint**
Coming full circle with a plant that tastes like home

36 **Wild Times**
Indigenous leaders who take long view, then and now

Cover Credit
Sentry | © Ariana Zimmermann
www.arianazimmermann.com

Printed on Rolland EnviroPrint, 100% post-consumer Process Chlorine Free recycled fibre, FSC, Ecologo and PCF certified.

Watershed Sentinel



Editorial

Zoe Blunt

Publisher Watershed Sentinel Educational Society
Editor-in-Chief Zoe Blunt
Deputy Editor, Circulation Claire Gilmore
Social Media Lead Hazel Volk
Executive Editor Delores Broten
Graphic Design Ester Strijbos
Staff Reporter Desiree Mannila

Special thanks to Valerie Sherriff, Mike Moore, Gerry Woloshyn, Mary Richardson, Anne Grube, Michael Maser, the writers, proofreaders, advertisers, distributors, and all who send information.

Deep thanks to our Board of Directors: Alice Grange, Susan Yates, Lannie Keller, and Sally Gellard.

We are grateful for the advice of our Editorial Advisory Board: Dan Lewis, Lucy Sharratt, Mark Worthing, Stephen Leahy, Jesse Cardinal, Warren Bell, and Priscilla Settee.

Disclaimer: Opinions published are not necessarily those of the publisher, editor, other staff, or volunteers of the magazine.

Published five times per year.

Subscriptions: Canada $25 for one year, $40 two years, US $35 per year. Digital (PDF) $15.

Distribution by subscription, and to Friends of Cortes Island. Free at Vancouver Island and Vancouver area libraries, and by sponsorship in BC colleges, universities, and eco-organizations.

Member Magazines BC and Magazines Canada
ISSN 1188-360X
Publication Mail Canada Post Agreement
PM 40012720

Return undeliverable Canadian addresses to:
Watershed Sentinel
Box 1270, Comox, BC, Canada V9M 7Z8
250-339-6117
editor@watershedsentinel.ca
www.watershedsentinel.ca

We acknowledge the financial support of the Government of Canada.

Canada

When you want your message to reach thousands of concerned and active readers, please contact us for our ad rates
250-339-6117; editor@watershedsentinel.ca
www.watershedsentinel.ca

Next Issue Copy Deadline: December 13, 2026

The Cure is Hardwired

My friend says human beings are hardwired for conservation, and she's right. We were born to be connected with the natural world. The proof is the universal awe and amazement we experience when we see a sunset, a star-filled night sky, or a flock of snow geese rising in flight at dawn.

Many never see the Milky Way or a flock of snow geese at dawn. But the need and capacity for connection remain. Each of us can be part of a community for change. Storytellers in particular are learning and teaching that resistance is more than possible – it is urgent and necessary. This community is laying the groundwork for a new kind of planetary defence.

A long, cold winter is coming, but it's no time for despair. This is when we choose the stories that map the future. We have to build the frameworks in our minds and share them with our community before we can create them in reality. Ideas launch movements, and movements make change.

Think about your heroes. Those who made history faced fierce backlash before they succeeded. They all have one thing in common: they didn't give up. And they were not alone: they had friends, neighbours, allies, and supporters backing them up. That's why we say isolation is the disease; connection is the cure.

—Zoe Blunt, Sayward BC, November 2026

At the 'Shed

Happy Winter! We're overwhelmed with gratitude for your hearwarming cards, letters, and donations. Your messages give us life, and we're happy to give back!

Come get your gift: It's not too late to claim your 2027 calendar subscription package: the Wilderness Committee's amazing Wild Canada calendar plus a full year of the *Watershed Sentinel* for only $35, tax and shipping included. Say the word, and we'll mail them to everyone on your list! *www.watershedsentinel.ca/store.*

Last chance to subscribe or renew before we raise our subscription rates! They haven't gone up since 2010, and we have no choice but to raise them in 2027 to keep up with the costs of printing and postage. But don't worry, you can still lock in the current price by using the auto-renew option when you place your order by Jan. 31, 2027!

Please answer those emails: We're sending reminder emails instead of letters to let you know when it's time to renew your subscription. This helps save us money, time, and resources. We appreciate your help!

Big cheers for the Electronic Recycling Association! This amazing organization refurbishes your used computers, laptops, and tablets, and ships them to deserving organzations like ours at a super low price. Support them here: *www.era.ca*

Particulates linked to ASD: study

Smoke Dangers

Prenatal exposure to wildfire-related fine particulate matter (PM2.5) is associated with a risk of autism spectrum disorder (ASD) but not attention-deficit/hyperactivity disorder (ADHD) in children, according to a population-based cohort study of 893,212 mother-child pairs enrolled in the US Medicaid program. Increased risk for ASD was strongest with exposure to PM2.5 during mid-to-late pregnancy.

—www.jamanetwork.com
October 26, 2026

Solar coming on fast

Electrifying!

The growth of solar power has exploded over the last decade and in 2026 is likely to exceed nuclear as a source of electricity, at about ten per cent each. The growth has been fuelled by the availability of inexpensive panels from China, new technology like plug in solar, better batteries, and the unreliability of fossil fuel supply due to wars in Ukraine and Iran. Nonetheless, coal and gas remain the dominant global energy sources.

—www.bbc.co.uk
October 23, 2026

Albanian protest turns violent

Flamingo Riots

Albanian protests over development in a nature refuge have erupted into a national uprising, targeting government corruption, education costs, and the selling of public lands. The conflict started when the government approved a massive luxury tourism project backed by Jared Kushner, US President Donald Trump's son-in-law. Demonstrators say plans for the development in protected wetlands will wipe out colonies of flamingos, a protected species native to the Mediterranean region. Thousands of students have now joined the riots in six cities, with protesters condemning both the government and opposition parties.

—www.bbc.com
October 16, 2026

Opposing IMF development in Asia

Women Resist

More than 400 women from over 30 nations gathered at a people's tribunal in Bangkok in October to highlight their resistance to International Monetary Fund and World Bank development projects that harm their communities. The projects, mainly dams and mines, threaten to rob communities of land and livelihoods, while the leaders of the resistance suffer intimidation and persecution.

—www.mongabay.com
October 30, 2026

Gone to carbon capture fairyland

Wasted money

Activists are calling on the British government to stop the planned £24 billion (over CAD$44 billion) subsidy to fossil fuel companies for "fairytale" carbon capture technologies. Environmentalist Chris Packham said it was a "national embarrassment" that the government was "bankrolling exorbitantly expensive projects with ludicrously uncertain results."

—www.theguardian.com
October 27, 2026

Rodents learn to clear land mines

Giant Hero Rats

APOPO, a Belgian charity, is training African giant pouched rats to detect land mines and hidden explosives in war zones. The rodents' exceptional sense of smell and small size (about 1 kg) allow them to quickly and safely locate anti-personnel weapons, even decades after they were buried. The mines explode when triggered by a person or a larger animal, and their widespread use in armed conflicts has left huge areas of countryside too dangerous to enter. APOPO's HeroRAT program is now accredited in Angola and Azerbaijan.

—www.apopo.org
October 6, 2026

Research into Europe's heat waves

50,000 Deaths

After Europe's deadly 2026 summer, new research suggests that human-caused climate change is responsible for the record-breaking temperatures. Researchers concluded that extreme temperatures during repeated heat waves caused the deaths of 50,391 people. A study in *Nature Health* blames two-thirds of those deaths on the extra heat caused by the burning of coal, oil and gas. The 2026 death toll is 71% higher than the previous deadliest summer, which was in 2022, according to the same researchers.

—www.cbc.ca
October 23, 2026

Letters

Meat and Water



Having had a busy few months, I have only now read your Summer 2026 issue. On the cover, it says it's the Drought and Food issue. Given that meat production uses far, far more water than the production of plant proteins like lentils, nuts, soy, and beans, why is there no article on meat-based versus plant-based eating – or even a mention of it?

I have been educating people for decades on the environmental imperative for humans to eat less in the way of industrially-produced, mostly factory-farmed animal-source foods. Yet many eco-groups still aren't talking about it.

Please consider a future issue devoted solely to the issue of animal-source foods. I'd be happy to help.

—Eleanor Boyle
www.eleanorboyle.com
Vancouver, BC

Open Letter to PM Carney

To Mark Carney, Prime Minister; Julie Drabrusin, Minister of the Environment, Climate Change, and Nature; and Joanne Thompson, Minister of Fisheries:

I had hoped that the "new" federal government would prioritize robust environmental protection and adopt a progressive, forward-looking approach to safeguarding our natural resources, wildlife, and the interests of future generations.

However, despite warnings from Environment Canada, the United Nations, scores of academics, and thousands of citizens about our diminishing biodiversity and climate change due to excessive use of fossil fuels, our government is developing new policies under a cloak of misunderstanding our ecological needs and an apparent denial of the environmental catastrophe we are facing.

Recent policy decisions support the above grim conclusion. Rollbacks such as removing caps on oil carbon emissions, eliminating the carbon tax, adopting aggressive resource development slogans, and establishing a fast-track Major Projects Office that bypasses the *Impact Assessment Act* represent significant steps backward for federal environmental policy. Unfortunately, these recent setbacks have culminated in the "Build Canada Strong" Bill C-39 legislation.

Of immediate concern is the approval of the Pacific Link bitumen pipeline from Alberta to a new oil terminal in the heart of the Fraser River estuary. This estuary is one of Canada's most ecologically sensitive, biologically productive habitats.

The assertion by our Prime Minister that a major oil infrastructure project of this nature can proceed without threatening these critical ecosystems is fundamentally wrong and totally misleading.

Prioritizing short-term economic development at the expense of ecological integrity sets another dangerous precedent. I urge you to reconsider these fast-tracking measures and reinstate rigorous environmental oversight to ensure our ecosystems, our grandchildren, and the life around us are genuinely protected.

If you cannot now better address a livable world for the future of my children, please try to relate to a world your children will soon inherit. Please re-examine what Bill C-39 will do to our environment.

—Otto Langer, MSc
Retired fisheries biologist
Richmond, BC

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
Box 1270, Comox BC, V9M 7Z8
editor@watershedsentinel.ca
or online at *www.watershedsentinel.ca*

Manufacturing consent for profit

The Petro Lobby

Industry documents uncovered by Greenpeace Canada have exposed the internal operations of several pro-oil and gas organizations. A January 2026 presentation by Resource Works and Energy in Action, both connected to the influential lobby group Canadian Association of Petroleum Producers, included strategy documents about countering "problems" such as environmentalists, federal climate goals, emissions caps, the oil tanker moratorium, and Coastal First Nations. A website hosting the documents was abruptly pulled offline when journalists contacted Energy In Action for comment.

—www.thenarwhal.ca
October 8, 2026

Conflicts of interest in Parliament

Invested MPs

Half the members of the House of Commons Standing Committee on Natural Resources own shares in oil, gas, mining, and power companies either directly or through a spouse, according to the Conflict of Interest and Ethics Commissioner's public registry. The Standing Committee oversees policy and legislation governing energy, mining, forestry, and resource extraction. The federal Conflict of Interest Code allows Members of Parliament to invest in resource stocks as long as they disclose the investments to the Ethics Commissioner. Spouses' holdings are exempt.

—www.insiderexpress.ca
October 25, 2026

National projects and local lawsuits

Fast Track Suits

The Carney government has designated two West Coast "projects of national interest" with accelerated timelines that bypass environmental rules. The two projects are connected: the first, Pacific Link Pipeline, would transport diluted bitumen from Alberta to the second, a new shipping terminal on the Fraser River in Delta, BC. Tsartlip First Nation, St'at'imc Chiefs Council, and other First Nations are challenging the pipeline decision in court, citing lack of consultation and loss of treaty rights. The Roberts Bank terminal would be built on a new artificial island that could permanently destroy wildlife habitat that supports southern resident killer whales and millions of sandpipers and shorebirds. Environmental lawsuits seeking to stop the terminal expansion were dismissed by the BC Supreme Court in 2023. Meanwhile, federal spokespeople claim that Canada is investing "billions" into environmental protections for salmon and orcas.

—www.ctvnews.ca, October 30, 2026; globalnews.ca, November 2, 2026

Viral heart disease in net pen farms

Sick Salmon

A Pacific Salmon Foundation study found higher than expected levels of heart and skeletal muscle inflammation disease in five of seven Broughton Archipelago fish farms east of Port McNeill, BC. The peer-reviewed study, published in the journal *Aquaculture*, revealed rates of viral infection that exceeded past reports. The disease is caused by piscine orthoreovirus, and experts are concerned it could harm farmed and wild populations.

—www.cbc.ca
October 11, 2026

First Nations invest in CGL pipeline

LNG Partners

Coastal GasLink pipeline has new partners after five First Nations paid a total of $65 million for a share in the 670-km project carrying LNG from Alberta to Kitimat, BC. TC Energy said the deal will provide "long-term benefits" to the Haisla Nation, Halfway River First Nation, McLeod Lake Indian Band, Saulteau First Nations, and West Moberly First Nation. Other Indigenous groups on the pipeline route strongly oppose the project. Coastal GasLink's majority owners are Shell and four Asian companies: PetroChina, Malaysia's Petronas, Japan's Mitsubishi, and South Korea's KOGAS.

—www.theenergymix.com
October 13, 2026

Baseline guidance for healthy herds

Bison DNA map

Ancient DNA can help restore healthy herds of North American bison, according to a study from University of California researchers. Genome testing on 20,000-year-old fossilized remains has uncovered a complex history, providing clarity about regional subspecies – woods bison and plains bison – and the effects of experiments with cattle interbreeding. Before colonization, bison numbered in the tens of millions across the US and Canada. These magnificent animals were nearly wiped out by hunting in the 19th century, but conservation efforts have increased the population to about 25,000 in the wild. Researchers say the new data provides a baseline for what a strong, healthy population looks like, and they hope it will provide a roadmap to restore genetic diversity in future herds.

—www.eurekalert.org
August 6, 2026

Kids For Climate

After seven years, the federal government goes on trial

by West Coast Environmental Law

On October 26, 2026, fifteen youth plaintiffs from all over Canada walked into court for the first youth-led federal climate case to reach trial in Canadian history.

They are challenging the Canadian government for its role in contributing to the climate crisis, which violates their Charter rights.

Who are the plaintiffs?

The youth plaintiffs come from communities across the country, from Vancouver Island to the Northwest Territories to Nova Scotia. They were between the ages of seven and 19 when they launched their case in 2019. Seven years later, they are finally getting their day in court. Each of the plaintiffs – Sierra, Cecilia, Sophia, Zoe, Sáj, Haana, Lauren, Montay, Mikaeel, Madeline, Maddy, Albert, Sadie, Kira, and Leandrea – is already living with the impacts of climate change.

Kira Young's story

"In 2023, the climate crisis affected my community dramatically. For days, we tracked a nearby wildfire in the news. We heard it was under control. And then, all of a sudden, there was an evacuation order. My family had less than two days to pack up our lives. We had to decide what to take: what clothes we might need, what photo albums fit in the back of the car. We had to leave our home.

"The worst part was having to leave my mom behind. She was an essential health care worker and stayed in our community to help.

> "If we win, Canada will have to prepare and implement a court-ordered climate recovery plan."

"We left on the only single-lane highway out of Yellowknife towards Edmonton, and we were on the road for close to 20 hours. My mom was eventually able to fly out and join us, but my family was displaced for weeks, bouncing in between hotels and friends' places as we waited to be told we could return.

"What happened to me and my family is not a headline. It's a reality shared with thousands of others who have had their lives disrupted due to the climate crisis. My personal philosophy is to take challenges life throws at me and shape them for good. Being a plaintiff is how I'm living that out. It's how I'm reclaiming a part of my story: my experiences weren't for nothing.

"I hope that my story will represent a component of many northerners' stories. My testimony can bring the country one step forward to a livable future."

Why this case matters

"Scrolling through the news this summer," Kira continues, "you'll see dramatic heat waves in the east, flooding in the west, and fires in the north. And then, side-by-side, are headlines about pipelines and scrapped emissions targets. Just recently, Prime Minister Mark Carney announced Canada is not going to reach our 2030 emissions reduction target.

"The climate crisis is not something we can postpone. Pushing our emissions targets back will only continue to exacerbate increasingly familiar wildfires, floods, and heatwaves. The climate crisis is harming us now, so emissions need to be reduced immediately.

"If we win, Canada will have to prepare and implement a court-ordered climate recovery plan to reduce our greenhouse gas emissions and decarbonize our energy system in line with what scientists say is necessary to stabilize the climate system."

Reprinted from West Coast Environmental Law's blog. Read the full story: *https://tinyurl.com/climatelawsuit*

"A Million Acres Gone"

The historic land claims of Six Nations of the Grand River

by Watershed Sentinel staff

For more than two hundred years, Indigenous people in Ontario have pursued reparations for what they say is the wholesale loss of their land.

It started with a broken promise. In 1784, the pre-Confederation government of Upper Canada enacted the Haldimand Proclamation, which awarded 384,000 hectares (almost a million acres) to the Six Nations of the Grand River as thanks for their allyship in the Revolutionary War. That land along Ontario's Grand River is known as the Haldimand Tract.

Instead of following through, Six Nations claims the government of the day sold most of the lands to settlers and pocketed the profits. In the end, only 18,615 hectares remained as reserve land.

Six Nations registered dozens of protests about breaches of the Haldimand treaty before launching the lawsuit in 1995. The case against Canada and Ontario is finally going to trial this year in Ontario Superior Court after decades of legal wrangling. It is expected to take ten years.

Today, Six Nations has over 29,000 registered members and includes the six nations of the Haudenosaunee Confederacy: the Mohawk, Cayuga, Onondaga, Oneida, Seneca and Tuscarora nations.

Lonny Bomberry, a member of the Cayuga Nation, is lands and resources director for Six Nations. "All of our money, all of our lands were sold to run the colonial government of Upper Canada for about 60 years," he told CBC News. "Upper Canada had no other income … other than the Indian lands, which were sold."

A statement from Crown-Indigenous Relations and Northern Affairs Canada reads: "We respect the decision of Six Nations to pursue their claims through the courts and will continue to work in co-operation with all parties as this case moves forward."

In their statements of defence, Canada and Ontario assert that the Haldimand Proclamation is not a treaty and it was not intended to establish a reserve. Canada maintains that Six Nations people consented to the surrender and sale of much of the disputed lands.

Even if the courts uphold the Six Nations claim, the federal government says, the court should not hold Canada responsible, as the land transfers took place before Confederation and before Canada was a country.

For its part, Ontario states that any breach of duty related to the Haldimand Tract was entirely Canada's responsibility.

Bomberry said it's difficult to estimate the cost of the reparations owed to Six Nations. The combined total of 46 individual claims could reach $8.7 trillion.

Robert Janes of JFK Law, one of Six Nations' lead lawyers, said his team will argue that Six Nations money and lands were mismanaged and misappropriated by the government and others.



"The ironic thing is that in many ways, without the benefit of the cases that have been fought over the last 30 years, the nations would be in a much weaker position," Janes told CBC News.

"Because the government has dithered for so long in trying to resolve this case, the law has really put us on a much stronger footing," he noted.

The impact on Indigenous people was devastating. Bomberry said. "Six Nations was left without any land, without any money."

"By the 1860s, we were completely broke, and a million acres gone through what I call the heart of Canada, and nothing to show for it."

With files from Candace Maracle and CBC News. For ongoing Six Nations coverage, visit *www.cbc.ca/news/indigenous*. Photo: Grand River Champion of Champions Powwow – John Strung.

The Breaking Point

Deep Water Recovery defies eviction in Union Bay

by Zoe Blunt

Last year, observers on Vancouver Island were celebrating a provincial decision to cancel a shipbreaking company's foreshore lease in Union Bay.

As *Watershed Sentinel* reported at the time, ("In the Public Interest," October-November 2025), the cancelled lease came after years of documented environmental damage, official warnings, and fines levied against shipbreaking company Deep Water Recovery Ltd. The cancellation was hailed as the beginning of the end of the toxic shipbreaking industry in the abundant waters of Baynes Sound.

A year later, no one is cheering. It appears that DWR, a US-owned industrial waste handler, is choosing to defy the ruling and carry on as before. The provincial order gave DWR 60 days to vacate the property, but aerial drone footage released by Concerned Citizens of Baynes Sound in September 2026 shows no sign of clean-up or decommissioning. Two ships are anchored in the bay, one partially dismantled, and piles of rusty metal and garbage cover the property. Workers can be seen maneuvering loaders around the piles.

Baynes Sound, a sheltered piece of the Pacific Ocean 100 km north of Nanaimo, is home to shorebirds, herring, and BC's largest shellfish harvesting hub. These are the waters and the food chains that DWR is illegally polluting with lead, asbestos, mercury, and oil, according to an August statement from the K'omoks First Nation. Last year, the Province levied $72,000 in fines against DWR and demanded a $3.2 million security deposit to guarantee cleanup of the site. It is not clear if either has been paid.

> K'omoks First Nation has been working with local and provincial regulatory bodies to stop the contamination for six years, with no results.

"These fines don't go far enough," said K'ómoks First Nation Chief Councillor Nicole Rempel. "Shipbreaking has been contaminating Baynes Sound for six years and nothing has changed."

In August 2022, Ministry of Environment staff visited the DWR property and reported "wood debris, steel scrap, unusable rusted material, septic system discharge, recreational vehicle effluent, and surface water effluent." Ministry staff confirmed that DWR had no treatment systems connected to its sumps, which are designed to discharge directly into the marine environment when full.

K'omoks First Nation has been working with local and provincial regulatory bodies to stop the contamination for six years, with no results. "We're calling on the federal government to step up, to finally stop these heavy metals and chemical toxins from leaching into this delicate ecosystem," Rempel said. "Fifty per cent of BC's shellfish are harvested here. No one wants more lead and copper in their food."

The region's MP, Gord Johns, has so far tabled two private member's motions calling on the government to establish enforceable standards in the ship recycling industry (similar to those in the EU). The first, tabled in 2022, got lost in parliamentary changes and dissolutions; the second, tabled in May 2025, is still waiting its turn to be debated. Meanwhile the industry operates in a regulatory grey zone, taking advantage of limited enforcement and significant gaps between federal, provincial, and municipal regulations.

The KFN statement condemned the Province's "toothless" environmental policies and noted that the recent fines are "the cost of doing business" rather than a true deterrent to stop DWR's unsafe shipbreaking practices.

In 2026, the Comox Valley Regional District renewed its 2022 BC Supreme Court action seeking to permanently shut down the shipbreaking site in Union Bay. The Province controls foreshore leases while the Comox Valley Regional District has jurisdiction over DWR's upland operations.

Clearcut Priorities

"Working Forest" plan could derail Indigenous land rights

From syilx Okanagan Nation

The syilx Okanagan Nation is calling on the Province to press pause on the launch of its new "Working Forest" initiative.

The Nation is responding to an August 2026 announcement that the Province is exploring a new Working Forest Landscape Model that would divide forest lands into three zones: Working Forest, which prioritizes commercial logging; Multiple-Use, supporting ecosystems as well as tree harvesting; and Conservation and Protection, for long-term ecosystem function, habitat, and biodiversity.

A September 2026 statement from the syilx Okanagan Nation says that designating lands as Working Forest raises fundamental questions about how the health of the land is valued and who determines its future. "Forests are more than a timber supply – they are interconnected living systems that sustain water, wildlife, foods, medicines, biodiversity, cultural practices, and syilx responsibilities to the land," the statement reads.

Long-term changes to land-use designation that prioritize commercial timber production could have major impacts implications for syilx Aboriginal title and rights, the statement notes.

"A forest cannot be defined only by the timber that can be taken from it. Our forests hold water, provide habitat, sustain our foods and medicines, and carry generations of syilx knowledge and responsibility. Decisions about how these lands will be managed must begin with the health of the land and the involvement of the title holders whose territories are being affected," said Councillor Jordan Coble, Chair of the Okanagan Nation Alliance Natural Resources Committee.

> "Certainty for the forest industry cannot come at the expense of the land, water, wildlife, or future generations."

Coble and others are seeking answers to questions about the proposed Working Forest Landscape Model. The syilx statement says it is not clear how boundaries would be established, what legal or policy effect the zones would have, how ecological and cultural values would be protected, and how Indigenous title holders would determine if lands within their territories are appropriate for designation.

Of special concern to the syilx Okanagan Nation is the plan to create areas where timber production is established as the top priority. This will limit options for culural use and protection and restoration of water, fish, wildlife, and biodiversity.

According to the syilx statement, the Province must explain how prioritizing timber production within a "Working Forest Zone" aligns with commitments to biodiversity, ecosystem health, old-growth protection and collaborative forest landscape planning.

Speakers for syilx Okanagan Nation add that decisions of this scale in their unceded territory can only be made with the early and meaningful involvement of syilx title holders.

"Certainty for the forest industry cannot come at the expense of the land, water, wildlife, or future generations. A modern approach to forestry must recognize Indigenous title and jurisdiction and ensure ecosystem health is not secondary to timber supply," states xaʔtus Chief Clarence Louie, Tribal Chairman of the ONA. "Provincial zoning will not replace our laws, responsibilities, standards, or role in making decisions about our lands and resources."

As BC considers the future of forest management, the Nation insists that the Province must work directly with syilx title holders before advancing Working Forest designations within syilx Okanagan Territory, and it must demonstrate how any proposed model will uphold Indigenous title and rights while prioritizing the long-term health of the land.

VIsit *www.syilx.org* to learn more.

New Nests at Old Mill

Pelagic cormorants are moving into Crofton's waterfront



Pelagic cormorants in Tofino

by Larry Pynn

The mill went quiet. The workers left. And nature moved in.

Pelagic cormorants started nesting on the site of the former Crofton, BC pulp-and-paper mill this summer, for the first time on record.

Domtar spokesperson Brenda Martin told Six Mountains she talked with the Vancouver Island mill's former environment manager Brian Houle, who confirmed: "The cormorants are new. So that's exciting!"

The cormorant nests now form part of the ongoing Seabird Colonies of British Columbia project in association with the Biodiversity Centre for Wildlife Studies in Victoria.

The records will also contribute to the federal Seabird Colony Inventory database.

"Fantastic sighting!" said bird biologist Michael Rodway, senior author for the project.

"This is the first record" of pelagic cormorants "nesting in that area," he noted.

Rodway said that pelagic cormorants "have been colonizing ferry docks recently, so not surprising that they found the old mill site attractive."

Rodway said that nests and nesting birds are protected federally by the *Migratory Birds Convention Act* and provincially by the *Wildlife Act*.

The regional wildlife management office under the Province's ecosystems branch "needs to be consulted if construction activities threaten impacts/disturbance to nesting birds," he said.

The total nesting population of pelagic cormorants has declined and the number of abandoned nest sites has increased in the BC Salish Sea over the last five decades.

As of 2023, a total of 1,410 pairs were estimated nesting at 26 sites: 599 pairs at 14 sites in the northern Strait of Georgia and 811 pairs nesting at 12 sites in the Gulf Islands. The current population estimate is 61% of peak population numbers counted in 1983.

North Cowichan has formed a Mill Closure Response Working Group to "provide advice and recommendations to the Mayor and Council regarding municipal, intergovernmental and community responses to the permanent closure of the Crofton pulp mill, the temporary curtailment of the Chemainus sawmill, and other disruptions within the local forest industry."

The Crofton mill first opened in 1957 and closed for good in 2026 (See "Pulp Friction," *Watershed Sentinel*, Dec. 2025).

Future use of the mill property remains unknown. "We're exploring a variety of possibilities for the future of the site," Martin said.

Larry Pynn, a veteran journalist, runs the Six Mountains news website for the Cowichan area.

Reprinted with permission from Six Mountains, *https://www.sixmountains.ca*.

For more information, visit *https://www.allaboutbirds.org/guide/Pelagic_Cormorant/id*



Bulldozing Canada

Bill C-39 strips land rights and environmental regulations

by Watershed Sentinel staff

Environmentalists, Indigenous people, union members, and opposition parties are denouncing the Carney government's latest national betrayal.

Bill C-39, the *Building Canada Stronger Act*, sacrifices hard-fought principles of environmental protection, Indigenous title, and workers' rights, while handing the federal government greatly expanded powers to fast-track projects "in the national interest."

If this sounds strangely familiar, that's because it is. Bill C-5, enacted in 2025, includes the *Building Canada Act*, which declared that certain "projects of national interest" could skip environmental assessment on the authority of a single federal minister. Bill C-39 goes further, expanding the list of assessment-free project categories and making them permanent.

Green Party leader Elizabeth May called it "a heavy-handed attempt to maximize untrammelled executive power at the expense of our environment and democratic process." She said, "I have never seen a bill drafted to be as deceitful as this one."

Bill C-39 changes 20 federal laws governing environmental assessments, major projects approvals, and labour relations. "Among its provisions, Bill C-39 would repeal the five-year sunset clause established under Bill C-5, allowing extraordinary Cabinet powers to remain in place," said May. "The legislation would also introduce 'regions of national interest' and further weaken the Environment Minister's authority over environmental conditions attached to major projects."

An October meeting between First Nations, the Prime Minister, and provincial and territorial premiers left the Union of BC Indian Chiefs "deeply disappointed" that economic development and major projects are taking precedence over First Nations' title and rights.

Speaking from Ottawa, Grand Chief Stewart Phillip, President of UBCIC, thanked "the fearless First Nations people protesting outside the meeting today, as well as the allied labour and environmental organizations that will be standing with Indigenous peoples and protesting Bill C-39 in Ottawa."

May said, "You can't have free and prior consent" under the new law, because once a project is declared in the national interest, "every further decision is deemed to be made in furtherance of the project."

Environmental organizations across Canada, including Environmental Defence, the David Suzuki Foundation, and West Coast Environmental Law, predict that Bill C-39 will weaken protections of wildlife, biodiversity, and the climate.

"They're calling it 'the Bulldoze Nature bill,'" said Green Party leadership candidate Mike Morrice. "And they are working together to amplify the concerns of Canadians who are seeing what is being bulldozed, which is wildlife protections, which is nature, which is climate protections that benefit us all."

Even before Bill C-39 passed, Cold Lake First Nation in Alberta filed a lawsuit seeking to overturn the "national interest" designation (and automatic approvals) granted to the Pacific Link Pipeline under the predecessor Bill C-5. The proposed pipeline would carry bitumen 1250 km from the Alberta tar sands to Delta, BC.

CLFN's lawsuit is likely the first of many challenging the Carney government's stunning reversal on public consultation, Indigenous rights, and the environment.

Sources: Green Party of Canada press release, October 14, 2026 | Union of BC Indian Chiefs press release, October 26, 2026



Tell No Tailings

Alberta quietly permits waste releases into Athabasca River

by Watershed Sentinel staff with files from Athabasca Chipewyan First Nation

It only took two weeks for the Alberta Energy Regulator to decide that an environmental assessment is not required before Suncor Energy starts releasing millions of cubic metres of tar sands waste directly into the Athabasca River.

The public only learned of the secretive decision months later when Canada's *National Observer* obtained AER's letter assuring Suncor that their tailings "treat-and-release" proposal is covered by a (still-unfinished) environmental assessment for a nearby mine expansion.

On October 2, the three governments of Fort Chipewyan – the Mikisew Cree First Nation, Athabasca Chipewyan Déné First Nation and Fort Chipewyan Métis Nation – put out a joint statement that begins with the Alberta Energy Regulator's boast that it has "reduced the cumulative red tape" by almost one-quarter since 2019.

"This is a textbook example of an unreasonable decision," said ACFN Chief Allan Adam in the statement. "The Alberta Energy Regulator didn't even issue reasons. They simply accepted Suncor's submission that there would be 'no environmental issues or impacts' from releasing 10 million cubic metres of treated tailings wastewater into the Athabasca every year. The proponent gets to decide 'there'll be no impact' and the regulator just says 'OK, we believe you,'" he said.

The Nations called it "deeply concerning" that this decision took the AER just 14 days. Its significance extends far beyond this one application, and "risks establishing a regulatory pathway by default."

> "The proponent gets to decide 'there'll be no impact' and the regulator just says 'OK, we believe you.'"
>
> —ACFN Chief Allan Adam

As the Nations point out, "other oil sands operators will be watching how regulators and government approach this."

Health in the Delta

Mikisew Cree First Nation, Athabasca Chipewyan Déné First Nation, and Fort Chipewyan Métis Nation have raised concerns about the health of the Peace-Athabasca Delta and the cumulative impacts of upstream development for years.

Brandi Morin reports on her blog (*www.indigenousinsider.substack.com,* October 7, 2026): "The ponds are bursting at the seams. That is why industry is scrambling." A Suncor director told reporters the wastewater "has to go someplace."

Fort Chipewyan's answer is that it has been going someplace for 50 years. The ponds seep; they always have. In 2023, the community learned Imperial Oil's Kearl mine had been leaking tailings for nine months before anyone told them, followed by a 5.3-million-litre spill.

In April, then-Chief Billy-Joe Tuccaro of Mikisew Cree First Nation stood in Ottawa and presented findings from a health study his Nation commissioned. Between 1993 and 2022, cancer rates in Fort Chipewyan were about 25 per cent higher than the rest of Alberta. His Nation, he said, is talking seriously about relocation.

None of this is new. Dr. John O'Connor raised the alarm in 2006 about rare bile duct cancers showing up in this small population, but Health Canada accused him of causing undue alarm. The misconduct charge that followed was dismissed in 2009. A community-led health study, funded by Ottawa with nearly $12 million over ten years, is underway right now.

The Chiefs state: "We cannot allow the regulatory bar to be lowered for an activity that has risks of severe impacts for our people, but also potentially far-reaching consequences for the Athabasca River and Peace-Athabasca Delta."

"Since 2016, the World Heritage Committee has requested that Canada do a systematic risk assessment of tailings management. That has never happened," said President Ladouceur of the Fort Chipewyan Métis Nation. "Alberta's model ... would not be accepted in any other jurisdiction. This whole process is beginning to feel like kangaroo court."

Treaty Challenge

Why the herring story matters on Denman Island

by Dorrie Woodward and Brad Hornick

For those of us living on Denman Island, Pacific herring are not an abstraction. Each spring their return transforms the waters around Denman and Hornby into one of the most extraordinary ecological events on the coast. Sea lions gather, seabirds descend, eagles line the shoreline and the water itself changes colour with milt.

Herring are small fish, but they occupy an outsized place in the marine food web. They convert plankton into a rich source of food for salmon, seabirds, marine mammals and many other species. Around Denman and Hornby, we happen to live beside one of the most important remaining spawning areas on BC's coast.

In November 2024, W̱SÁNEĆ Hereditary Chiefs issued a declaration calling for a moratorium on commercial herring fishing in the Strait of Georgia and for the restoration of herring throughout their traditional territory. Their concern is ecological, but also cultural, economic and legal. Herring once supported W̱SÁNEĆ communities around the Saanich Peninsula as an important food and economic resource. The chiefs argue that the loss of herring from traditional harvesting areas has breached their Douglas Treaty right to "carry on fisheries as formerly."

What began as a call for a moratorium is now developing into something considerably more consequential: a potential treaty rights challenge to the way Canada manages Pacific herring.



In December 2025, the W̱SÁNEĆ Hereditary Chiefs received a legal opinion from Ratcliff LLP. According to the Herring Conservation & Restoration Society, the opinion concluded that the chiefs could potentially bring an action against Fisheries and Oceans Canada in BC Supreme Court, arguing that their treaty fishing right has been significantly diminished, partly because of the commercial fishery.

DFO sees the situation differently. For the 2026 season, DFO forecast Strait of Georgia spawning biomass at approximately 102,791 tons above its established biological reference points, and has authorized commercial fisheries at a 14% harvest rate to a maximum of 14,390 tons. From DFO's perspective, the Strait of Georgia stock can sustain that level of fishing.

The W̱SÁNEĆ challenge raises a different question: do the commercial fishery practices, which consistently remove the older, larger fish from the stocks in the Strait of Georgia, account for herring disappearing from particular bays, inlets, and traditional harvesting grounds? That question is becoming the heart of the case as scientists learn that these fish hold the memory of spawning ground locations, and the younger fish, without their leaders, abandon these sites.

Through 2026, W̱SÁNEĆ knowledge keepers, lawyers, and researchers from the University of Victoria have assembled historical, ecological, and oral-history evidence. More than $130,000 has been dedicated to related research.

A legal letter was sent to DFO on June 10, followed by further correspondence. The W̱SÁNEĆ team has indicated that if the department does not pause the fishery while this evidence is considered, the chiefs are prepared to pursue the legal option. There are high level consultations taking place between the parties at this time. The campaign is expanding through Herring Rising, a partnership involving the W̱SÁNEĆ Hereditary Chiefs, the Herring Conservation & Restoration Society, and the Georgia Strait Alliance.

Dorrie Woodward is a Denman Islander, chair of the Association for Denman Island Marine Stewards, and a director of the Herring Conservation and Restoration Society. Brad Hornick is a writer who also lives on Denman Island.

Let the Aspens Grow

Ending the use of herbicides in BC's forests

by Watershed Sentinel staff with files from Stop the Spray BC

Stop the Spray BC is claiming "progress" in its battle to end the use of chemical herbicides such as glyphosate in BC forests. According to reports, forestry company Canfor did not spray BC forests with glyphosate in 2026, although it did spray 15 large cutblocks near Prince George in 2025.

"Canfor no longer has an active [herbicide] permit, and they were one of the biggest sprayers in the Prince George area. So we made progress there," James Steidle, founder of Stop the Spray BC, told *Watershed Sentinel* in October. "In certain parts of the province, it looks like the herbicide spraying has been stopped, but it sounds like it's just carrying on elsewhere."

In August, Steidle learned that Canfor had not submitted any Notice of Intent maps to the BC Ministry of Environment for 2026. These maps are required by law prior to herbicide spraying on Crown land, although there is no requirement that they be released to the public before the spraying happens. The Ministry told Stop the Spray that "Canfor has no plans to spray aerial glyphosate anywhere in BC in 2026, nor any firm plans to spray after this year either."

"Seeing Canfor give up on herbicide spraying in Prince George is a big development," says Steidle. "This large corporation has conducted the majority of the spraying in the Prince George region in the past twenty years, much of it targeting fire-resistant aspen, and much of it not even necessary to achieve the legal requirements of reforestation."

Of course, this does not mean that no manual or aerial spraying on Crown land is being carried out by other companies. In 2025, there was significant backpack spraying in the Discovery Islands, around Harrison Lake, and in the Fraser Canyon.

> "We need to ask why we are eliminating fire-resistant deciduous patches in the first place."



©xunantunich

Spraying forests with glyphosate remains legal in BC, despite the Ministry's statements about "phasing out" its use. Glyphosate use has been banned or restricted in many countries and municipalities due to health and environmental concerns. Like manual brushing, it kills fire-resistant aspen, as well as other deciduous growth, to make way for pine-dominated plantations – at a time of more frequent and destructive forest fires.

"Despite claims to the contrary, companies have an interest to maintain excessive levels of brushing," Steidle says, "to minimize the risk of not meeting the free-to-grow legal requirements of reforestation."

"We need to reassess this system, run audits on brushing, and ask why we are eliminating fire-resistant deciduous patches in the first place, even if we aren't using chemical herbicides, given the wildfire risk moving forward. But regardless, this development is a step forward."

"Thanks are due to all the individuals who took the time to spread awareness about this detrimental practice," adds Steidle, "and in particular to the leadership of the Lheidli T'enneh First Nation in Prince George, who put their foot down on this practice in November of last year."

"A big round of appreciation all around."

What AI Revolution?

"There is no alternative" is back with a vengeance

by Jon Milton

If there's one thing that everyone seems to agree upon when it comes to artificial intelligence, it's that it's going to change everything, and there is no stopping it. Like a force of nature — a hurricane making landfall, an earthquake, a wildfire — the AI revolution is coming.

AI, they say, is going to revolutionize work. It will eliminate countless jobs and send labour productivity into the stratosphere. It is going to fundamentally change public services. It will revolutionize warfare. It will transform arts and culture. It will destroy all previous assumptions about the possibilities of technology. OpenAI CEO Sam Altman, in one of his many outlandish claims, said "we are close to creating a genie that can grant any wish."

Even negative stories can reinforce this framing. Scary tales about frontier AI models "breaking containment" out of their testing areas and engaging in "autonomous" hacks against other AI companies reinforce the idea that these new digital technologies are accelerating faster than human designers can control. We are, indeed, on the verge of the AI revolution, everything seems to say – whether we view that as a good thing or not.

But are we? The actual rollout of AI has been, for the most part, underwhelming. The productivity gains have mostly failed to materialize. AI integration into online services like Google search has almost universally worsened the quality of those services, with next to nothing on the upside. Nobody likes AI "art." Companies are re-hiring workers that they laid off to replace with AI during the early days of the rush. Stock markets are beginning to punish major tech companies for their growing debt ratios.

> The AI wave is a power grab – one that we have the capacity to resist.

Altman's genie claims are obviously absurd, but they do reflect the way most people view AI technology: as a type of magic. Tech companies and their boosters deliberately mystified AI technology, and that lack of understanding is a key part of why AI seems like an inevitable behemoth.

Take the term "AI" itself: ChatGPT is a Large Language Model (LLM), a type of word prediction machine that guesses, based on probability, which word is likely to follow another – much like the predictive text feature on your cell phone keyboard. It is not, in any meaningful sense, intelligent, in that it contains no internal capacity for logic or to check the veracity of references. Its core function is word prediction, not reason (which is why it is significantly less reliable for information retrieval than a standard search on Google or Wikipedia). "Artificial intelligence" is a marketing term.

By referring to these technologies as "intelligent," we contribute to mystifying them. It feels more serious to tell ourselves that we "asked AI" about something rather than asking the Magic 8 Ball.

But the hype cycle this narrative produces has consequences. Policy-makers across the world are falling over themselves to deeply embed "AI" systems into the economy. They are constructing energy-hungry data centres, replacing public service workers with chatbots, and funnelling public money to tech companies that constantly claim to be on the verge of "revolutionizing" something or other, if only we gave them a little more cash.

Back in the 1980s, governments across the developed world were massively restructuring their economies – they were going to war with labour unions, gutting the welfare and regulatory state, signing away sovereignty through trade deals, and running fire sales for newly privatized public services. It was the early days of neoliberalism, and UK Prime Minister Margaret Thatcher put it in simple terms: "there is no alternative."

From tech CEOs to the federal government's AI strategy to the chattering classes in the media, that narrative is once again taking hold with regard to a massive restructuring project. This time, the

people deploying that rhetoric are using technology (rather than economic theory) to justify their power grab. But just like last time, it is indeed a power grab – and one that we do have the capacity to resist.

Jon Milton is a writer and editor with the Canadian Centre for Policy Alternatives. His work focuses on social movements and social change.

Reprinted with permission from the Fall 2026 issue of the *CCPA Monitor* (*www.policyalternatives.ca/monitor/there-is-no-alternative-again-ai-and-the-capacity-to-resist*)



Data Centre Climate Bomb

While global market experts worry about the impending collapse of the AI bubble, Prime Minister Mark Carney is busy investing hundreds of millions in taxpayer dollars into an "AI For All" future that will significantly boost liquefied natural gas production and climate emissions.

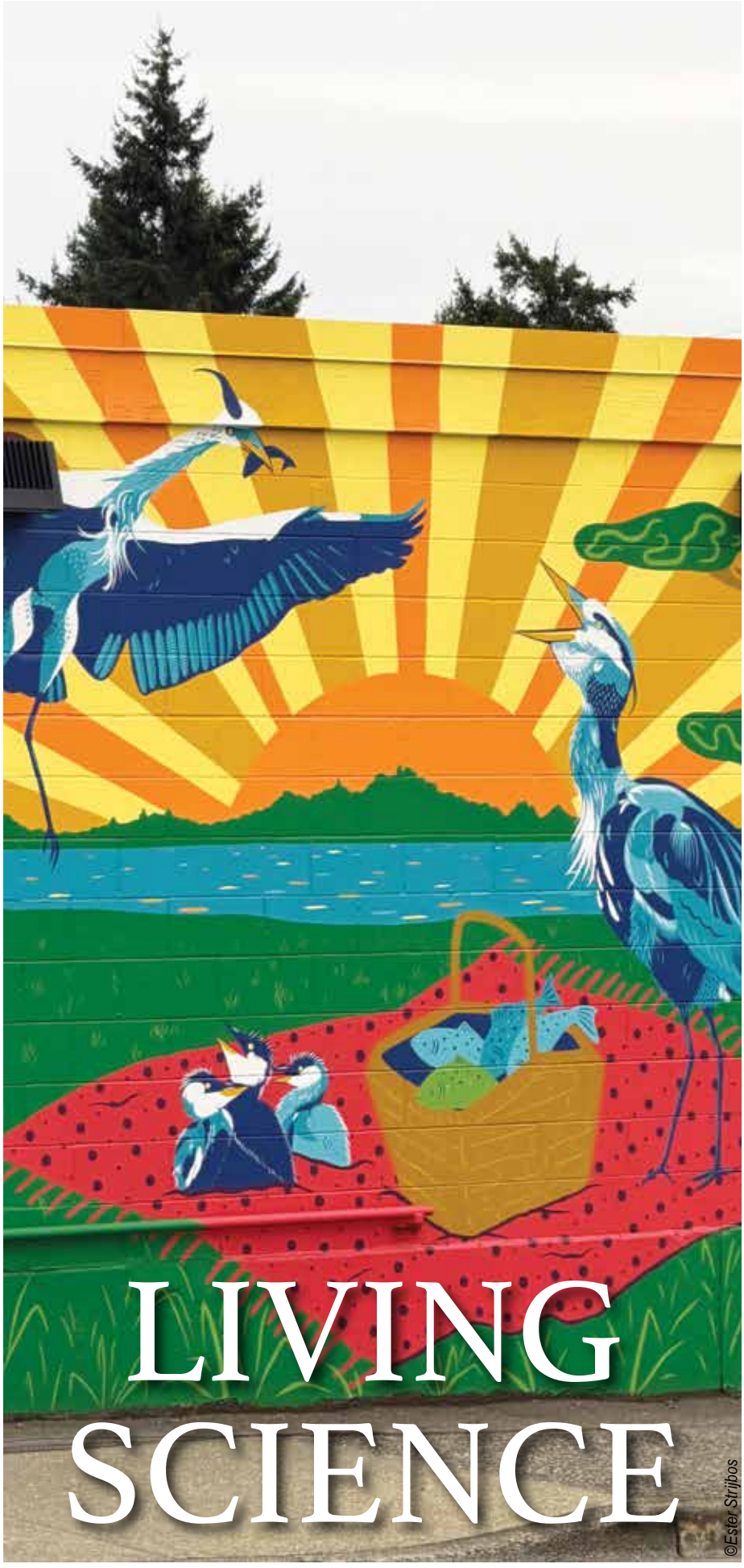
Nearly one hundred data centre projects are proposed across the country with the promise of thousands of jobs and millions in dividends. But a 2025 Privy Council document obtained by Greenpeace suggests a less public facet: a huge increase in LNG gas consumption for data centres, contradicting national climate goals.

As Norway-based energy and climate analyst Ketan Joshi told *The Tyee* (June 11, 2026), a full build-out would add between 33 and 63 megatonnes of greenhouse gas emissions every year, "effectively undoing the past 15 years of emissions reductions in Canada."

The massive federal push for more AI and data-centre capacity is meeting stiff resistance across Canada, with an Angus Reid poll showing more than two-thirds of respondents don't want to live near one. Vocal protests have erupted in Vancouver, Edmonton, and Hamilton, Ontario, and some municipalities are denying permits for the projects.

—Sources: *The Tyee* (June 11, 2026); *Futurism.com* (Oct. 19, 2026); *Western Standard* (Oct 15, 2026); *Stand.earth* (June 4, 2026)

LIVING SCIENCE



It's becoming clear that the problems caused by technology won't be solved by technology. What's needed now is intelligence.

The wisdom that comes from generations of learning from the land and water, and then applying that knowledge with care and respect. Technology that's alive, not a simulation of life; like weaving willow branches into a creek bank to create a living hedge against erosion, or growing mushrooms that eat oil and plastic.

In these pages, there are no miracles and no magic fixes, but we have pre-industrial knowledge, appropriate technology, and science that is properly scaled, intelligently located, and beneficial to the ecosystem.

Sentinel Educational Foundation

Mural created by Kay Gallivan

Let the Beach Move

Soft engineering for sea-level rise and habitat protection

by Ben Wickham

At low tide, the Comox estuary opens up into a wide, glistening expanse of mudflats and salt marsh. If you look out among the silt, where the tidal waters pull back, you can still see them: the weathered tops of Douglas fir stakes driven into the intertidal mud hundreds and thousands of years ago.

These are the ancient K'ómoks fish traps; a vast, sophisticated network of wooden weirs engineered to work with the natural rise and fall of the sea, to harvest fish without disrupting the flow of the river or the shape of the shoreline.

For millennia, human survival along this coast depended not on resisting the ocean, but on understanding and accommodating its movements.

Just steps away from those ancient stakes, modern construction crews recently completed a project that feels, in its own way, quietly radical. They tore out an old concrete viewing platform whose foundation was cracking under the tides. They hauled away hard armouring, removed invasive species, and dug out a brand-new estuarine fish channel.

In place of a static wall built to hold back the Salish Sea, a re-graded beach now sits, nourished with pea gravel, 20,000 newly established native plants, and elevated boardwalks designed to let the intertidal zone breathe.

For more than a century, coastal engineering along Vancouver Island operated under a simple, rigid assumption: if you want to protect human infrastructure from the ocean, you build a wall.

Tearing down the wall

As sea levels rise and storm surges intensify, a growing network of planners, restoration ecologists, and Indigenous groups are testing a different thesis. Instead of fighting the coast, they are asking what happens when we let the beach move again.

It is easy to understand how coastal communities got hooked on concrete. As towns and cities grew along the coast of Vancouver Island and mainland BC, waterfront land was cleared, leveled, and hardened. Seawalls, riprap boulders, and bulkheads offered a reassuring sense of permanence. They drew a firm, legible boundary between the land we built upon and the sea we sought to contain.

For generations, "protecting" a shoreline meant fixing it in place. But hard infrastructure carries an ecological cost that builds up quietly over time.

When a wave hits a natural, gently sloping beach, its energy dissipates across sand, gravel, and drift logs. When that same wave hits a flat, vertical concrete wall, its energy isn't absorbed; it bounces back. That reflected wave action strips away fine sediments down to bare bedrock or mud, drastically altering the delicate upper-intertidal zones where forage fish like surf smelt and Pacific sand lance spawn. Ecologists refer to this loss of habitat as the "coastal squeeze."

Trapped between rising ocean levels on one side and an unyielding concrete wall on the other, the living edge of the coast simply disappears. Juvenile salmon rely on those same forage fish and sheltered estuaries to feed as they migrate out to sea, therefore the loss of a beach ripples all the way up the marine food web.

This phenomenon helps explain the growing interest in nature-based coastal defence, particularly the Green Shores framework developed by the Stewardship Centre for BC.

A new framework

Green Shores isn't an argument for letting nature have its way with existing human infrastructure. Nor does it abandon coastal habitat management. Rather, it represents an engineering pivot from resistance to absorption, and relies on inspiration from existing natural forces.

Instead of vertical concrete barriers, softshore engineering works with dynamic materials. At qapoje Park, formerly Dyke Road Park, project partners, including the Comox Valley Regional District, Project Watershed, the K'ómoks First Nation Guardian Watchmen, and the Pa-

Continued on Page 20 ⇨

⇦*Let the Beach Move continued*

cific Salmon Foundation re-contoured the shoreline with precise mixtures of gravel and sand that can shift under heavy waves without washing away. Eco-cultural fencing was woven from branches to protect newly planted salt marsh grasses from grazing geese, giving root networks time to knit the sediment together.

The goal is a shoreline designed to bend rather than break. When winter storm surges roll across the Salish Sea, a naturalized beach absorbs the brunt of the kinetic energy, shifts slightly, and recovers. This climate flood adaptation will protect nearby roads and restore habitat for 29 fish species and 145 bird species that depend on the estuary.

"The Dyke Road Park Coastal Resiliency Project is a vital step forward in restoring the health and resilience of the K'ómoks Estuary," says Caitlin Pierzchalski, Executive Director of Project Watershed.

"In conjunction with other estuary restoration efforts, this work not only enhances ecological function and community space but also honours the deep stewardship and leadership of the K'ómoks First Nation in caring for this land and waters."

Converting a crumbling lawn

At the southern end of the island, in the traditional territory of the Lekwungen-speaking peoples, the Township of Esquimalt applied a similar approach along the high-traffic waters of Esquimalt Gorge Park. There, the municipality converted an eroding, manicured lawn into a re-profiled, Green Shores Gold-certified shoreline featuring 100 linear metres of replenished gravel and sand beach suitable for forage fish spawning.

For local governments, shifting away from standard concrete or riprap requires retraining staff and rethinking basic asset management. "The Township recognizes that we have environmentally sensitive areas within our borders and we take the responsibility of stewardship seriously," says Esquimalt Parks Manager Robbie Young. "Staff received Green Shores training to ensure a strong understanding of the work that was taking place. It was a tremendous opportunity."

The real test came when winter storm surges and seasonal king tides hit the Gorge waterway. "Rather than relying on a hardened seawall that resists the forces of waves, tides, and flooding, the Green Shores approach uses a more natural shoreline to absorb and dissipate that energy," Young explains. "Hardened structures can provide protection but eventually deteriorate, whereas a naturalized shoreline is designed to respond dynamically to changing conditions. The performance of this site through the winter tides demonstrates that the shoreline is functioning as intended."

Young also highlights the human dimension of soft-shore engineering. Alongside split-rail fencing to protect newly established riparian plantains, Esquimalt installed a mobi-mat to maintain barri-



©Ester Strijbos


©Ben Wickham

er-free public access to the water. "Parkgoers have been responsive and respectful with the interpretive signs, and the site has been mostly un-interfered with by patrons, he says. "This project has demonstrated the application of the science as well as beautified the area significantly… Nature-based solutions can be applied on a variety of scales."

Local stewardship groups like the Gorge Waterway Action Society are now monitoring the site, tracking vegetation growth and preparing to test forage fish egg presence alongside upcoming upslope rain garden installations to filter road runoff.

"Transforming a manicured lawn to an ecologically rich area supports fish, birds, and pollinators," notes Stephanie Gurney, Director of Operations for GWAS. "This restoration project not only enhances local biodiversity and resilience to climate change, but also inspires future generations to care for and protect the Gorge."

Despite the ecological wins at qapoje Park and Esquimalt Gorge, restoration ecologists and coastal engineers are quick to point out a hard reality; soft-shore engineering is not a silver bullet against an advancing ocean.

Fortify or retreat?

Even if climate mitigation becomes a top global priority, sea levels everywhere will continue their upward march, permanently altering the geometry of our shores. That reality forces an uncomfortable conversation between two competing strategies: spending public dollars to fortify the existing waterfront, or planning for managed retreat – the organized, long-term relocation of human infrastructure away from low-lying shorelines.

"The Township recognizes that coastal adaptation is not a one-size-fits-all solution," Young notes. "We are beginning to incorporate the concept of managed retreat into our long-term strategic conversations, specifically regarding land use restrictions and strategic planning."

Rather than serving as a permanent replacement for a seawall, living shorelines serve as a vital bridge. They cushion wave energy, restore collapsing intertidal food webs, and buy valuable time for communities grappling with the complex political, financial, and legal hurdles of retreating from the water's edge.

Standing at the edge of the K'ómoks Estuary as the tide comes in, the contrast between our engineering past and our climate future is unmistakable.

A concrete seawall treats the sea as an adversary to be kept out at all costs, standing unyielding and redirecting energy to destroy vital habitats until the day an extreme tide or the passage of time breaks it down. A living shoreline accepts that the border between land and water was never meant to be static, and that we can learn from nature how to mitigate and even grow with the changing climate.

Low-tech adaptations like soft-shore restoration offer more than an engineering fix.

As coastal communities in British Columbia face an uncertain climate future, low-tech adaptations like soft-shore restoration offer more than an engineering fix. They offer a blueprint for how human communities might renegotiate their relationships with the coast, moving away from the quiet violence of hard barriers and returning, slowly, to a way of living alongside the tides.

Ben Wickham is a writer from Nanaimo, BC with a background in education and public service. His passions for writing and nature come from his father and mother respectively.



Rising Tide of Trash

Two organizations take aim at the plastic crisis

by Emily Milne

Each year, an estimated 11 million metric tons of plastics flow into the ocean, the equivalent of a garbage truck emptying into the water every 45 seconds. Sea turtles swallow floating bags they mistake for jellyfish. Beaked whales, which hunt by echolocation, mistake plastic for squid because it reflects sound in a similar way.

Researchers estimate that up to 90% of living seabirds carry traces of plastic in their bodies. One shearwater chick was found with 778 pieces in its stomach. Once in the water, plastic breaks into microplastics that spread through the food web and carry chemical contaminants up the chain. That is why people are at risk too, especially coastal communities that depend on a healthy ocean.

Recycling efforts are not keeping pace either. Only nine per cent of all plastic ever made has been recycled, and without some kind of change, ocean plastic could triple by 2040. Solving a problem of this magnitude would take a fundamental rethinking of how we produce goods; something that very few are willing to do. However, several conservation groups are putting in the work and tackling this issue head on, by clearing plastic from rivers and remote shores.

Tackling the trash tide

On a remote beach near Cape Scott, at the northern tip of Vancouver Island, a small crew sorts bags of foam, rope, and bottles and waits for a helicopter. On a river in Indonesia, a solar-powered barrier guides floating trash onto a conveyor belt. Both are working towards the same goal but in very different ways.

The Ocean Cleanup and Living Oceans Society are easy to pigeonhole: one a polished organization, one a scrappy group; one with resources and power, the other rough around the edges and full of local grit. The question isn't which model is better; it's which tool fits the job.

An Interceptor can't be moored in San Josef Bay, and a crew of volunteers wouldn't make a dent in the Great Pacific Garbage Patch. Each approach is appropriate to the place and problem it tackles, and each covers what the other cannot. A one size fits all view of waterway cleanups is fundamentally flawed, therefore tackling the plastic problem requires different approaches.

The Ocean Cleanup organization came out of a teenager's ocean dive in Greece. At 16, Boyan Slat saw more plastic bags than fish. He researched the problem for a school project, and his 2012 TEDx talk on cleaning the oceans with technology went viral. That momentum let him leave school and found the project a year later, at 18. Today it is a Rotterdam-based nonprofit with more than 150 professionals, fully reliant on donations from individuals, corporations, governments, and institutions.

The seemingly endless resources of The Ocean Cleanup give it huge reach and power. Rivers carry a large share of that plastic to the sea, and what is already afloat will not vanish on its own or break down anytime soon. The organization says the harm reaches nearly 900 marine species.

The Ocean Cleanup's response to this issue is two-pronged: first, stop plastic in the rivers before it reaches the sea, then remove legacy plastic from the gyres, with a target of clearing 90% of floating ocean plastic by 2040. An ambitious but admirable goal.

The river cleanup relies heavily on the Interceptor system, which Slat unveiled in Rotterdam in October 2019. The solar-powered vessel is moored in a river, guides floating waste into an opening at its bow, and carries it by conveyor into dumpsters, texting local operators when it is full.

Slat called rivers "the arteries that carry the trash from land to sea." The Interceptor's launch answered critics who had faulted the group for focusing only on plastic already floating in the ocean. One of them, Wageningen Marine Research's Jan van Franeker, told the Associated Press he was glad the project had moved towards the source.

Founder Boyan Slat of Ocean Cleanup in Honduras



The money has grown with the organization's momentum. In 2019, each Interceptor system cost about €700,000, roughly $1 million Canadian. In March 2026, The Audacious Project committed $121 million – the largest donation Ocean Cleanup has received – toward a 30 Cities Program, which aims to place Interceptors in 30 key urban centres to block up to one-third of global river plastic pollution by 2030.

The organization plans to deploy 39 Interceptors this year, and reported in July that it had removed more than 60 million kilograms of trash from rivers, as well as directly from Great Pacific Garbage Patch (using offshore systems). Partnerships with Coca-Cola and campaigns like #TeamSeas keep the mission visible. Its stated aim is to "put ourselves out of business once the oceans are clean."

Clear the Coast

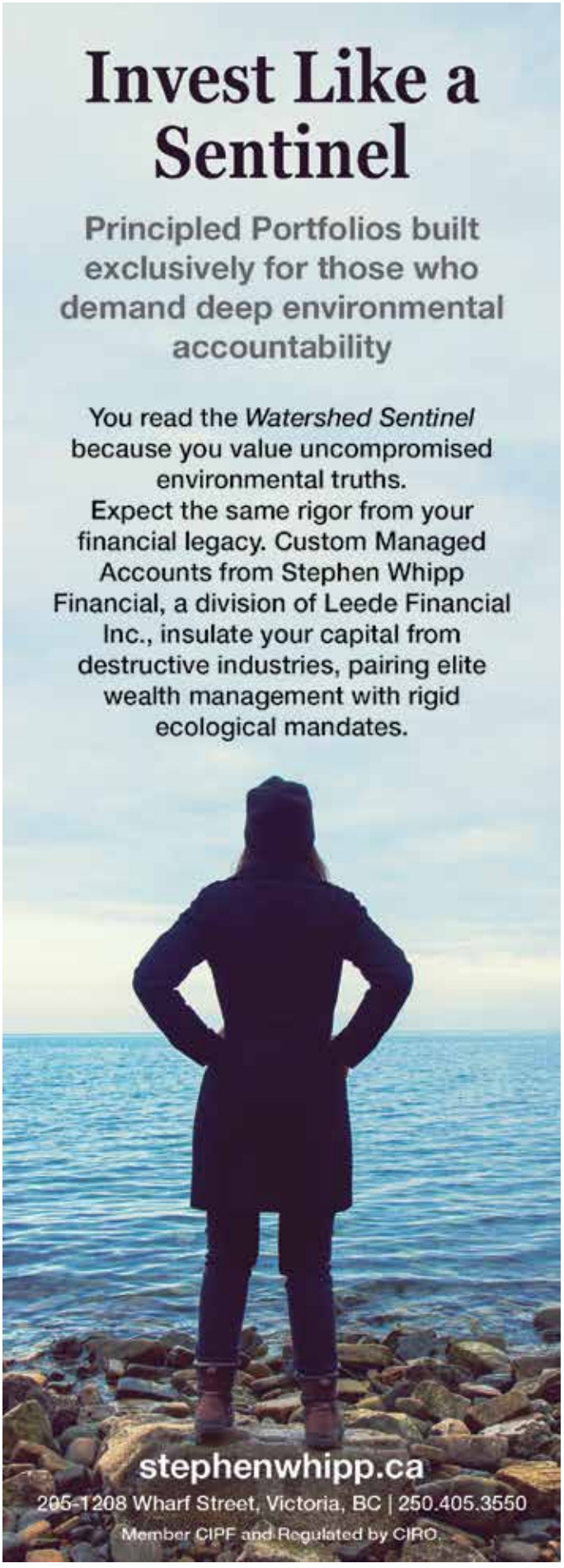
Living Oceans has a dramatically different story. It began in 1998 in Sointula, a small fishing village on BC's Central Coast. Its influence is now national, but it is local at heart: the organization says "it's not just about the fish – it's about the fish *and* the people."

Mostly, Living Oceans is a science and policy group. It conducts research, turns data into maps and reports anyone can use, and works with government, industry, and coastal residents on improving ocean policy. Its campaigns range from ocean planning and sustainable seafood to salmon farming, oil tankers, and ocean acidification.

One part of that work is the Clear the Coast project. Volunteers clear plastic garbage from northern Vancouver Island beaches where piles of trash accumulate due to wind and ocean currents. After ten years, they have removed over 70 tonnes.

It is slow work; the 2023 spring crew of seven removed 2.07 tonnes in three days before a helicopter lifted the bags to a logging road. In 2025, corporate donors in the Blue Friday initiative raised nearly $30,000, enough to field three teams for the

Continued on Page 24



⇦ *Cleanup continued*

first time. That is about three per cent of one Interceptor's 2019 price tag. The group has also brought Quatsino and Tlatlasikwala First Nations into the project, and hopes to recruit and train young people from those communities.

Side by side, the contrasts are stark: tens of millions in funding against donations and volunteer time, engineered river barriers versus volunteers with bags on remote beaches. But the similarities matter more. Both are nonprofits that depend on public generosity, both gather data that turns cleanup into evidence, and both know that removing plastic treats a symptom, not the cause.

The right tool depends on the terrain. Technology can stop plastic at the mouths of heavily polluting rivers, but it cannot reach a rocky cove accessible only by helicopter or boat. A local group can gather data and press for policy, but it cannot intercept a river carrying tonnes of plastic toward the sea. By its own estimate, the Ocean Cleanup Interceptors have caught two to five per cent of global river-borne plastic, showing both how much has been achieved and how much remains.

Both organizations are addressing a problem that will not end anytime soon. Living Oceans has been candid that in 2018 almost all the debris it collected went to landfill, because there was little market for recycled plastic. A well-funded cleanup hits the same wall, and corporate partnerships can invite the suspicion that cleaning up is easier than stopping production. Cleanup does not end the problem. It buys time.

The plastic crisis will not be solved by one machine or one beach, and cleanup alone will never be enough. Machines and volunteers, each reaching what the other can't, are what keep the problem within reach while the real fix catches up.

Sources:
https://ocean.org/pollution-plastics
https://www.livingoceans.org/initiatives/clear-the-coast

Emily Milne is an aspiring educator who grew up on Vancouver Island. In her spare time, she enjoys reading, hiking, and exploring British Columbia's nature.

Blocking the Sun

Regulatory hurdles stall Canadian plug-in solar

by Delores Broten

Plug-in solar panels, also called balcony solar, are sweeping Europe. Sales got a boost when Russia's war in Ukraine made electricity more expensive in Europe.

The technology is similar to the solar panels that are popular for charging cell phones while camping, but they come with a mini-inverter attached to the plug which goes into your house. The power they produce goes straight into your local household electricity at a slightly higher pressure, so it's used first, before the power from the grid system.

The amount of power one panel can produce is fairly small – 400 to 1200 watts, but if electricity where you live is expensive, the savings can be noticeable. For those of us with the cheapest household power (Quebec, Manitoba, and BC), it may be insignificant. At the moment, they will not put power into your house during an outage, for safety reasons.

According to *The Energy Mix* (May 7, 2026), Germany adjusted regulations to allow plug-in solar systems, and Belgium followed suit, enabling IKEA to launch balcony solar (starting at about CAD$560 per unit) in 2025 and 2026. In Spain, kits are available through another company, Robinsun. As of August 2026, the plug-in kits are now legal in the United Kingdom. They were legislated in South Korea under the slogan "One Less Nuclear Power Plant," in 2013.

In the US, Utah led the way by sweeping aside the complicated regulatory structure required for rooftop solar panels. Currently, according to Plug-In Solar USA (*www.pluginsolarusa.com*), ten states have passed legislation to allow the technology. California's bill became legal Sept. 30, New York's bill awaits the governor's approval, and another 30 states have legislation in progress.



Mini-PV balcony system in Tauberbischofsheim, Germany

The classification complication presents the greatest obstacle in Canada. As a power generation system, the devices require engineering reports, qualified electricians, and legal agreements with the electricity company.

Safety regulations and insurance requirements are further stumbling blocks. All the components of systems sold in the USA are certified by Underwriters' Laboratories (UL), although the entire assemblage is not. In Canada, UL certification is accepted, but at this point the devices need Canadian Standards Association (CSA Group) approval. This evaluation process has not even begun.

There is, however, a campaign for that. Plug-In Solar Power Canada is collecting petition signatures for the federal government and all the provinces, and you can track their progress online at *www.pluginsolarpower.ca.*

"We're asking for a CSA safety standard and a simple connection process for certified plug-in solar kits up to 1,200 W," the website explains. "The electricity would be used at home, without net metering. Changes to the Canadian Electrical Code, followed by provincial adoption, would help bring that option to households."

Beavers and Deer

Sustaining the balance of life on and around Galiano Island



by Sidney Coles

On Galiano Island, a grassroots conservation group is finding new ways to work with beavers and deer to restore the landscape.

Over the course of its thirty-year trajectory, the Galiano Conservancy Association (GCA) has grown from a small land trust to a regional pioneer in ecological restoration and nature-based learning.

The roots of the Conservancy lie in a protracted legal battle over forest ownership, logging rights, development, and land use regulation on the island. It was co-founded in 1989 by musician and luthier Ken Millard who, along with other residents and grassroots organizers, opposed extensive clearcut logging on the island by forestry giant MacMillan Bloedel.

The conflict erupted when provincial resource priorities and private property interests collided with community efforts to protect the island's forests, watersheds and biodiversity. The conflict exposed the limits of local government authority over the lands and waters in its jurisdiction.

Restoring the wetlands

The Conservancy's work involves an urgent hydrological imperative. Restoring wetlands means repairing the water cycle on which the island's entire ecosystem – and its human population – depend.

Galiano's vulnerability is partly a consequence of how water moves across the landscape. Executive director Chessi Miltner described it as the island's Achilles' heel.

"It's not that we don't get enough rainfall on an annual scale, but we don't get enough rainfall on a seasonal scale that allows winter water to infiltrate soils, replenish aquifers and sustain vegetation through dry months," Miltner said.

At Chrystal Creek, the Conservancy undertook watershed-scale restoration on former agricultural land, replacing artificial drainage systems with more naturally contoured wetlands. By 2024, restoration treatments had been completed across more than 12 hectares, creating over 90 wetland pools.

Learning from the beaver

In another ambitious project, the Conservancy is looking to the behaviour of beavers as a template for its restoration work in the Beaver Creek watershed.

Historically, beavers maintained a succession of dams that slowed the creek, trapped sediment, and created wetlands.

But as previously logged forests grew back into dense Douglas fir stands, the deciduous vegetation favoured by beavers – particularly willow and alder – dwindled and died as the firs shaded them out. The beavers left.

Without beaver dams, water ran more rapidly downstream, cutting deep channels into accumulated sediments and draining the surrounding landscape.

The Conservancy responded by imitating the beavers. Volunteers constructed beaver dam analogues (BDAs), simple structures designed to slow water and capture sediment. Working with the BC Wildlife Federation, the Conservancy also installed more durable post-assisted log structures anchored deeply into the streambed, to withstand flooding and prevent a cascade effect should the smaller BDAs get washed out.

As water accumulates behind these structures, sediment gradually raises the creek bed, recreating conditions that support wetland vegetation and wildlife. And since the Conservancy filled drainage ditches, a plethora of shallow pools now hold water long enough to support amphibians, waterfowl, and other wildlife.

With restoration structures in place, change happens quickly. Within months, Miltner said, "Volunteers came across northern red-legged frogs depositing egg masses in newly restored wetlands." Waterfowl and migratory birds are now using the pools and the number of species in the watershed continues to increase.

And then, in October 2025, a beaver returned to the Chrystal Creek watershed, demonstrating what becomes possible when human intervention sets up the conditions for nature to resume its own steady work.

The conflict exposed the limits of local government authority over the lands and waters in its jurisdiction.

Partners and mentors

A legacy of fostering partnerships is reflected in Adam Huggins' vision for the group. Huggins, an Instructor in the Restoration of Natural Systems program at the University of Victoria and the GCA's restoration engineer, said, "Ever since its earliest days as an organization, the GCA has recognized that people play an important role in ecosystems – that we're not separate and apart from them." GCA encourages community members to take an active role in the work, he said.

The Association works closely with the Penelakut Tribe (Spune'luxutth), the original stewards of Penelakut island, and recently won a Heritage BC award in the category "Honouring Indigenous and Diverse Cultures: Reconciliation, Redress and Expanded Recognition" for its annual Feed the People workshop.

"It's becoming more and more obvious," said Miltner, "that we have a lot to learn about the landscapes that we live in, and that Western science is only one route to increasing our knowledge."

Hearts and minds

Galiano and other Gulf Islands face problems caused by a hyper-abundant deer population overbrowsing important species. This is why "you end up with a simplification of the understory," Miltner noted. "That doesn't happen on Penelakut because they harvest deer as an important food source, and so you end up with a lot more culturally significant species."

The GCA is engaging in outreach to change Galiano's hearts and minds about hunting. Its "Restoring the Balance" initiative recognizes that deer population management, ecological restoration, and Indigenous food sovereignty are interconnected.

Through its Millard Learning Centre, the Conservancy hopes eventually to integrate wetland restoration more directly with food and fibre production, showing how productive landscapes can also support ecological diversity.

The underlying success of its restoration and education efforts springs from its founding principle that restoring forests, wetlands, animals, and human food systems can only be managed successfully if they are understood to be interconnected.

Sidney Coles holds two PhDs. She is a journalist, writer, and human rights advocate living in Victoria on the traditional territories of the lək̓ʷəŋən people.

All the Fish in the Sea

Ban on ocean fish farms leads to wild salmon resurgence

by Melanda Schmid-Ochieng and Kwakwabalas, Chief Ernest Alfred

It's late August on Hornby Island, high tourist season. On this sunny afternoon, Chief Ernest Alfred, his sister Shelley Cook, and Nic Dedeluk, Aquatic Resources Manager at 'Namgis First Nation, have just arrived and are settling in with friends and hosts at Conservancy Hornby Island, a community environmental organization.

The last time Ernest was on Hornby Island, the weather was cold and stormy, and he vowed to come back with family in warmer times. Today, the visiting trio connected with friends floating in one of the anchored boats in Tribune Bay, and are soon off to meet up, explore, and enjoy some well-earned vacation time.

This visit almost did not happen; they had been so busy with salmon harvesting and processing through the summer months – a joyful sign of recovery after years of depletion.

Ceremonial welcome

Later, at the Hornby Island Community Hall, now dressed in ceremonial attire and speaking to eager community members who have gathered, Alfred, Cook, and Dedeluk stand and call those present to attention with a traditional welcome song in the Kwakwala language. Alfred then grins and cracks a Land Back joke, and the audience bursts into laughter.

For the second time this year, Alfred has come to Hornby Island to share the incredible story of wild salmon regeneration in his Nation's territory.

At the tenth Annual HerringFest in March 2026, he joined friends and colleagues from the non-profit Clayoquot Action to present the powerful documentary film *Salmon Secrets*. Tickets sold out a week before the screening, and attendees were deeply moved by Alfred's testimony of the 284-day occupation at Swanson Island that he and others waged in the fight to remove salmon farms from their waters. It was obvious that Hornby Islanders wanted a second screening so they could hear more.

Secrets of the salmon

This time, the film is presented as a standalone event rather than placed within a festival focused on Pacific herring. There is more time to hear Ernest's updates. And the updates are dramatic, even in just the five intervening months since his last visit.

The legal battles – and wins – continue for 'Namgis in court against the Federal Government and fish farm companies. As 2026 draws to a close, the Nation is still in court pursuing multiple cases against Fisheries and Oceans Canada and salmon farm companies. The government has repeatedly delayed fulfilling its promise to ban salmon farms in the region, instead extending 14 licences for another four years beyond the original planned 2025 removal date.

There is no arguing, however, that wherever the farms are removed, the wild salmon are back and thriving. Their numbers continue to climb well beyond even the early, hopeful recovery featured at the end of the 2024 film.

Bearing witness

Watching from the audience, Hornby Islanders Jed and Karen Young of Outer Island Farm have just returned from a camping trip to the Hada River Estuary in the Great Bear Rainforest. They are brimming with excitement. Back in 2020, Jed was part of the crew that built a cultural revitalization centre, now a thriving place where young people are learning and speaking Kwakwala.

Although Jed relished that experience, the salmon numbers at the time were dire. He speaks about participating in the count and seeing fewer than 400 fish returning to spawn.

But this year it's different, he says. Karen and Jed were witness to the community welcoming over 37,000 fish in that same river.

Alfred nods, noting that this is the historical "normal" for this river. He calls this profound and rapid recovery in the span of just a couple of years the "smoking gun," the evidence that companies like Cermaq, Mowi, and Grieg most feared coming to light. He also tells those gathered how bittersweet it is for those who

lived through the occupation and have been on the frontlines of the legal battles, to have paid such a high price for traditional knowledge to be vindicated.

Going into battle of any kind takes a toll, and many relationships were fractured by the stresses and tensions of that campaign.

Victories take time, and are often partial, creating unintended impacts elsewhere. The Federal Court of Appeal's ruling in January 2025 upholding the federal government's authority to remove open-pen salmon farms from the waters of BC was lauded by 'Namgis First Nation.

But when the pens were towed away from the Broughton Archipelago to the West Coast of Vancouver Island, the companies essentially doubled up their operations in these new waters.

> Open-pen infrastructure was pulled up onto the land and now sits as trash.

Other open-pen infrastructure was pulled up onto the land and now sits as trash, "someone else's" future cleanup problem. Alfred is visibly pained describing seeing these grounded "farms which never had farmers" abandoned on the land in neighbouring Nations' territories.

The cost of the campaign

When an audience member asks how the public can help and whether more protests and occupations are needed, Alfred replies emphatically, "We fought so that the next generation does not have to."

"I do not want to see any of our young people today doing what we did," Alfred explains. "We had no idea it would last that long or cost us that much.

"It's my job, it's the job of all of us who led it back then, to go talk to our brothers and cousins in the Nations of this region

Continued on Page 30 ⇨



Wild salmon outside a fish farm by Tavish Campbell ▲

⇦*All the Fish in the Sea continued*

who are hesitating," Alfred says. "We have to stand together on this issue."

Alfred stresses that despite the fish farming industry labelling criticism as the voices of a few activists, multiple opinion polls show fully three-quarters of BC residents want all fish farms removed. And, far from just a few voices speaking against the industry, the overwhelming majority of First Nations elected chiefs and councils are not only cooperating but actively pushing back.

While 14 Nations have been willing to accept contracts from these companies, over 120 Nations have formally signed petitions and letters asking for their removal to protect wild salmon.

"We fought so that the next generation does not have to."

Alfred says to the assembled group,"We are not doing this so that we can get rich. We were rich already, before modern industry started damaging these natural systems. We want the abundance to return for the benefit of everyone."

"We want our traditional diet and lifestyle back," Alfred continues, "and there will be more than enough to go around when wild salmon recover. Greed can't coexist with a healthy natural world."

What we can all do is stand in solidarity with this movement. And Hornby Islanders are on board.

K̓wak̓wabal̓as, Chief Ernest Alfred is a traditional and elected leader of the 'Namgis First Nation (Alert Bay) and one of the champions of the Nation's actions to remove open-pen salmon farms not only from their territorial waters but the entire province. He is among the featured spokespersons in the 2024 documentary *Salmon Secrets* by filmmaker Jeremy Mathieu.

Melanda Schmid-Ochieng is the current Executive Director of Conservancy Hornby Island. Of Swiss heritage, Melanda was born and raised in Vancouver, BC and is grateful to live and work on the traditional land of the K'omoks First Nation, stewards of this plentiful land since time immemorial.

▼ 2021 salmon farm occupation



©Tavish Campbell

Consumer-led revolution

Solar Pakistan

Pakistan installed 27 gigawatts of distributed solar panels between 2023 and 2025, an energy revolution led by consumers that exceeded the capacity of all the operating coal-, gas-, and oil-fired power plants the country has ever built. It's saving billions of dollars in fossil fuel imports, according to a new report from Islamabad-based Renewables First and UK think tank Ember. "Distributed solar is providing millions of Pakistani homes, farms, and businesses with affordable, reliable electricity," said lead author Nabiya Imran. "Empowered by the widespread adoption of solar PV tech, consumers are playing a central role in Pakistan's electrification and energy transition."

—www.theenergymix.com
June 24, 2026

Now that's a greenbelt!

China's Tree Wall

Since 1978, China has planted a belt of 66 billion trees across 2,800 miles to slow the expansion of the Gobi and Taklamakan deserts. Authorities aim to add another 34 billion trees by 2050 and increase global forest cover by ten per cent. The barrier seeks to combat severe soil erosion and dust storms, but it is not without problems. Monocultures like poplar and willow lack natural forest biodiversity and disease resistance. Further, planting millions of thirsty trees in hyper-arid regions has severely depleted groundwater tables and soil moisture. Scientists urge a shift toward more biodiverse, indigenous plant systems so the forest will survive without depleting the region's scarce water resources.

—www.livescience.com
December 12, 2025

Electric is zooming

Global EV Sales

Between 2016 and 2025, global sales of electric and hybrid vehicles zoomed to over 20% of the market. This currently saves an estimated 1.4+ million barrels of oil per day. Several of the countries with highest sales are northern and Nordic, led by Norway and followed by Hong Kong, Denmark, Nepal, and Iceland, with over 60% of sales leaning toward hybrids. At 40+ million barrels/day, vehicle use accounts for 40% of global oil consumption.

—www.ember-energy.org
October, 2026

Energy boost from wind and solar

Lots of Power

Wind West, a series of wind farms off Nova Scotia that aims to supply energy equal to 25 per cent of Canada's total demand, has been given a $100 million federal grant. The money will support wind, ocean, and transmission-line mapping to encourage private investors. In the meantime, Nova Scotia and Massachusetts have agreed to share technical knowledge and send Nova Scotia's power to the New England grid where it is needed.

—www.nationalobserver.com
October 16, 2026

BC wants renewables, not gas

Strong Support

New polling from Abacus Data finds 82% of British Columbians support constructing new renewable projects to meet the province's growing electricity demand, while just 5% oppose it. Specifically, 60% think government should prioritize renewables like wind and solar with battery storage, compared to 17% who think natural gas should be the priority and 13% who think it should be nuclear.

—www.cleanenergycanada.org
October 14, 2026



An aerial view of agroforestry management practices in Niger in 2004.

Africa's great green pivot

Mixed Results

Like China, mid-African nations are also working on an ambitious greenbelt project – in this case, an 8,000-km-long belt of trees 16 km wide to contain the Sahara desert and protect the Sahel region. The project, launched in 2007, has run into difficulties – $20 billion in aid pledged from abroad didn't materialize, and 80% of the trees have died from drought or being eaten by cattle. On top of which, the desert is not actually moving south; the land was denuded by overuse.

In response, the project has evolved to focus on traditional land use techniques, especially in Niger and Burkina Faso. Hundreds of thousands of farmers there are planting in pits to keep rain in the soil. Sorghum and millet are planted around trees regenerated from stumps in the fields, and the trees provide fuel, fodder, and shade. Large areas are being successfully re-greened by this focus on conservation and regeneration.

—e360.yale.edu, October 28, 2026; news.mongabay.com, August 3, 2023

Gratitude and Grief

A violent death brings the living world into sharp focus



by Margaret Steele

I wake early to the sound of traffic heading north. I check the time. It's a few minutes past three o-clock. Still dark but loggers are already on their way to wake up a sleeping forest. I lay in bed a while longer but can't get back to sleep, and finally get up just after four.

Sitting on the couch with my morning coffee, I see vehicle lights go by at regular intervals. Within an hour, the first loaded logging truck rumbles by on its way to the mill. By the time I finish my coffee, two more loads have passed. I can only imagine what it must be like up in those hills. The searing bright lights. The relentless roar of heavy equipment. The violent intrusion of man and machine into the natural world.

Down here in the valley, life is slowly waking up. Roosters crowing. The occasional dog barking. Lights turning on in neighbourhood farm houses. I make breakfast and eat it on the porch. The air is fresh and the fires and smoke of summer are a distant memory. I'm tired but looking forward to visiting a friend in Nelson. Later, as I steer the car down the driveway, I'm thinking of dinner at our favourite restaurant overlooking Kootenay Lake and don't notice the black shape on the road ahead. When I finally see it, I assume it is my neighbour's garbage bag, set out the night before for garbage day. Except it isn't garbage day. And it isn't a bag of garbage.

A dead bear comes into focus. Lying on his side, face turned toward me, eyes open. A small patch of blood by his mouth. My chest tightens. I know this bear. He's the young one I startled a few nights ago when I opened the door to call my cat. He made that eerie huffing sound they do when they're scared or giving a warning as he flung himself at the Douglas Fir by the porch.

I retreated inside and watched from the window as he scrambled further up the tree. Several minutes passed while we both calmed ourselves down and waited. Eventually, the bear began to lower himself to the ground. And then he walked away toward the field. Slowly and with dignity – no longer afraid.

Two days later, the bear is dead. I am told he was killed by a logging truck at 1:30 that morning. The driver stopped. He said the bear died instantly.

Sitting at the end of my driveway, I am overcome with grief. For the bear. For the driver who hit him. For all of us who stop at the sight of the bear on the road and try to come to terms with what we are seeing.

The grief stays with me as I drive over the Paulson Pass to Nelson. It sits in stark contrast to the dazzling beauty of the morning – the clear blue sky, the splashes of golden aspen and larch on the hillside, the towering mountain peaks in the distance. It is still a fabulously beautiful world.

I am reminded that grief and gratitude can sit side by side. Gratitude can help us stay with the grief and honour the pain we feel for the world rather than push it away or try to suppress it. I don't want to suppress my grief. In some ways, it keeps me connected to the bear.

I try to bring up the image of him clinging to the fir tree by my porch. Alive. Vital. Healthy. But instead I keep seeing his motionless body on the road, the blank stare in his eyes and the small patch of blood by his mouth.

I find it hard to hold back the tears. The bear's death triggers something deep inside me. An intense sorrow. Sorrow for a society so disconnected from the rhythms of life that it sends workers out to log the forest in the middle of the night. Sorrow for an impoverished culture that believes humanity sits at the top of some hierarchy of life forms. Sorrow that most of us have never been taught that we are part of the web of life and have responsibilities to our fellow creatures and the rest of the natural world.

When I get to Nelson, I tell my friend about the bear. The tears come. To my eyes and hers. And for a time, we grieve together. Two old friends, sitting face to face, grieving for a bear and sharing the pain we feel for the world. It helps to speak it out loud. For both of us to know we are not alone in feeling the grief and the pain.

By the time I arrive back home, the bear's body is gone. Over the next few days, the rains come and the small patch of blood on the road washes away. But the memories of the bear stay with me, finding their place alongside the gratitude and grief for the world.

Margaret Steele has written extensively on affordable housing issues. In recent years, her focus has shifted to writing about the land where she lives, in the Granby Valley north of Grand Forks, BC.

Watershed Sentinel philosophy

• People powered, bottom-up media

• Learn from Indigenous viewpoints

• Give voice to grassroots and community activists

• Reflect, don't dictate

• Explore, don't predetermine

• Provide balance, a voice to all sides within an ecological and social justice perspective, with content inclusive of science, passion, environmental justice, and conservation.

Ode to Mint

Coming full circle in pursuit of a plant that tastes like home


©Jenni Lessard


©Jenni Lessard

by Jenni Lessard

If you were lucky enough to grow up by a Northern lake or river and were taught how to harvest, dry, and make tea from the mint that grows along the water's edge, you'll be transported home whenever you catch a whiff of the plant or take a sip from a steaming mug.

When I was a kid, I'd hear adults say "I just need a little pick me up." That's exactly what lake mint tea does. It calms and soothes but also invigorates. The Cree name for the plant translates to beaver sweet grass, as it grows where the beavers swim.

It tastes like hot August days with dragonflies doing mosquito-eating missions through the cattails while you splash in the waves, having too much fun to go to the house for a snack. Instead, you pinch off some mint leaves, making sure to rub them between your fingers first before popping them in your mouth, to make sure it's the real thing and not the lookalike plant. If it doesn't smell minty, it's not mint.

I was raised at Lamp Lake, about 300 km north of Saskatoon and another kilometre and a half down a narrow road into the bush. The lake was small and mostly surrounded by muskeg. The part we lived on had blueberries, thick bush, and tall spruce, pine, poplar, and birch trees. In the summer, our mom always had a pail of water set out on the deck for us to rinse the dusty reddish sand from our little feet that were constantly running up and down the path to the lake.

We didn't have TV or a phone line until I was in high school, so cooking was what I did for fun. I soaked up plant knowledge anywhere I could. On trips to down south to Kistahpinanihk (or Prince Albert as it's now called) I would shadow my Grandmother in her teeny tiny kitchen as she made soups and stews and bannocks we ate with homemade jam or chokecherry syrup.

I started a restaurant in Birch Hills, Saskatchewan in 2005 with no formal culinary training, just a need to feed my family and a passion for sharing how delicious local and wild harvested foods could be. My daily changing chalkboard menu featured ingredients that I picked, bought, or traded. I loved telling customers the stories of how each item was sourced and how it grew.

My Grandma and other Métis relatives and community members visited New Ground Cafe often and were generous with their praise and their feedback. "This tastes so nourishing" after a bite of a date oatmeal cookie, or "knead it a bit less" after a piece of too-tough bannock.

When I sold the restaurant and moved to Saskatoon in 2012 to cater, I had a whole new scene to navigate. I got $300 in parking tickets my first two months. I'd never lived in a place with traffic lights, let alone parking meters!

I called the Meewasin Valley authority when I got here and asked if harvesting was allowed along the riverbank. They didn't say a clear "no," so I used small amounts, picked according to the protocols I'd been taught, to keep my meals infused with the flavours that were integral. Rose hips, chokecherries, red currants, sage, juniper. But there was no mint, and La Ronge was even further away now.

Lake mint – imperilled, precious, persistent

After cooking at the 2023 Circumpolar Artists' Gathering in Iqaluit, I drove 400 km northeast, parked my truck just off the highway and waited for Michela Carriere of Askiy Holistic Adventures to get me on her skidoo and drive us over the frozen Saskatchewan River delta to Big Eddy Lodge, to cook for We are Fire, a gathering that explores cultural burning.

Michela stopped on one of the lakes and pointed out the tall, sharp plants that had been slapping me in the face as I stood on the back of the sled loaded with my cooking gear. "This is *Phragmites,*" she said. "Since the government only lets us burn from November 1 to April 1, it's overtaken all the other plant medicines the muskrats used to eat."

Each day, the two dogs followed me down a different ferny, mosquito-y path, and each day we came back mint-less.

For ten days this month, my husband and I stayed at Big Eddy Lodge so Michela's parents Renee and Solomon could go on a road trip. "Pick some mint if you can find it," Renee suggested, but explained that the flooding this spring had killed all the mint by the river. Sask Power's dam is severely impacting traditional lifestyles and plant and animal nations in the Delta, to provide power for the province and irrigation for a very small number of large-scale farmers.

Each day, I took a different path into the bush to search for my favourite plant, with lofty goals of having the entire cabin filled with drying mint, enough for the family's whole winter, by the time they got back. Each day, the two dogs, Susie and Hobbes, followed me down a different ferny, mosquito-y path, and each day we came back mint-less.

Until the second last day and the last trail I tried. This one ended up at the lake's edge. There, almost choked out by the bully plant, Phragmites, was a little mint settlement. I picked about two months' worth of tea, leaving enough for next year.

On the morning we were boated out, I was walking down the sandbar and found newborn mint right where I had been exploring all week. In September, not June, when they should be emerging. I yearned to pluck off the perfect, deep green shoots with their chocolate brown stems, but I heard my mom's voice say, *"Leave it alone."* So I did.

Jenni Lessard is a Métis chef, recipe developer, and culinary consultant based in the Qu'Appelle Valley of Saskatchewan, on Treaty Four Territory.

This story is the first in an upcoming series that emerged from the CLIMAVORE Assembly this past September in Saskatoon — a vibrant gathering that hosted discussions on ecological repair, land access, Indigenous foodways, and community-led food futures. Many thanks to Priscilla Settee for connecting *Watershed Sentinel* readers with these voices and stories.

Wild Times The long view

by Joe Foy

We're standing on the brink of a grim future with a new BC Conservative provincial government, while the federal government and Prime Minister Mark Carney are just getting up to speed.



©Wilderness Comittee Files


©Wilderness Comittee Files

What does that say about hope for climate action, endangered species habitat protection, and old-growth conservation?

It feels like a perfect storm of environmental havoc is coming. There's an oily pipeline moving toward the Fraser Estuary. LNG ports are popping up on the coast like massive climate-changing mushrooms. From orcas to owls to caribou to salmon, extinction zones threaten to expand in forest and sea.

We have certainly seen hard times like these, when the stakes were high and heroes took the long view, stepped up and somehow got us through.

That's partly because where we live, there is a particularly rich legacy of Indigenous leadership. These leaders come from nations with deep attachments to the land and community memories that go back beyond the most distant reaches of recorded time.

I have not agreed with every decision they made, of course. But taken in total, their legacy is impressive and I am most grateful for it.

Back in the mid 1980s, the BC logging industry was on a tear to rip off the last of the big unlogged old-growth valleys and wilderness areas. Miles Richardson Jr., President of the Council of Haida Nations, stood strong. He declared, "This is Haida land, you all know that, and we're here to uphold the decision of the Haida Nation." Today, some of the very best protected areas are in Haida territory.

At the time, Tla-o-qui-aht Chief Councillor Moses Martin was defending Meares Island from timber giant MacMillan Bloedel. Martin changed history for us all by saying: "You are welcome to come ashore and join us for a meal, but you have to leave your chainsaws in your boats."

Those old-growth forests still live today and are enjoyed by people who were not even born when Moses made his stand.

In 1985, while working to protect the Stein River Valley from various logging schemes, Ruby Dunstan, Chief Councillor of the Lytton First Nation, spoke in a way that companies, governments and the rest of us could understand. "This valley is Indian land," she said. The Stein Valley remains unlogged and unroaded to this day.

In each decade since, Indigenous leaders have delivered some of the finest environmental outcomes. They prevailed because of hard work, courageous action, and well thought-out long-term visions for their territories.

Indigenous leaders have, time and again, shown us what it means to be human and to possess human rights in the face of seemingly overwhelming odds.

In days to come, there will be increasing pressure to roll back nature protection and human rights. I am not interested in going back. Only forward. Many provincial and federal leaders have abandoned us. I will be looking to support Indigenous leaders who are taking the long view.

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

Thank You!



In memory of Marjorie Urquhart
and Wayne Bradley, Dawn Christian, Heather Kennedy-MacNeill, and Don Malcolm

Stars ($500 and over annual donation): Jacqueline Ainsworth, Fanny Bay BC • Pat Carl, Comox BC • Chimera Springs Rock Works, Chase BC • Ann Clayson, Fanny Bay BC • David Morwood & Anne Cubitt, Courtenay BC • Derrick Hayes, Qualicum Beach BC • Pat Jacobson, Qualicum Beach BC • Lannie & Ralph Keller, Surge Narrows BC • Juliette & Rick Laing, Salt Spring Island BC • Peter McAllister, Salt Spring Island BC • Keiko & Allan Stewart, Hagensborg BC • Jim & Barbara Wentworth, Kamloops BC • Richard White, Cranbrook BC

Friends ($200-499 annual donation): Megan Ardyche, Courtenay BC • Warren & Joanna Bell, Salmon Arm BC • Eric Bentley, Campbell River BC • Susan Blacklin, Qualicum Beach BC • Jim Bradshaw, Maple Ridge BC • Norah Chaloner, Guelph ON • Linda Cheu, Courtenay BC • Jeff Chilton, Tofino BC • John Clague, West Vancouver BC • Paul Coulter, Vancouver BC • Mark de Bruijn, Courtenay BC • G. B. Dryvynsyde, Galiano BC • Alan & Christina Eastwood • Fred Fern, Merville BC • Andy Gray, Comox BC • Ann Hiatt, Whaletown BC • David Huntley, Burnaby BC • Karen Hurley, Victoria BC • John Jackson, Kitchener ON • Dan Kingsley, Errington BC • Paul MacGillivray, Berwick NS • Heather Menzies, Gabriola Island BC • Mary Mitchell, Courtenay BC • David Moulton & Marian Toft, New Westminster BC • Heather McLean & Lisa Pierce, Denman Island, BC • Helen Lee & Michael Redican, Quathiaski Cove, BC • Mary Richardson, Vancouver BC • Michael Rooksby, Victoria BC • Peter Rowlands, Newmarket ON • June Ryder, Vancouver BC • Paul Sanborn, Prince George BC • Olga Schwartzkoff, Vancouver BC • Mugs Sigurgeirsson, Hornby Island, BC • Barbara & Simon Vieyra, Canmore AB • William Walsh, North Vancouver BC • Martha Wendt, Lasqueti Island BC • Peter Johnston & Sue Wheeler, Lasqueti Island BC • Ray Zimmerman, Victoria BC

Patrons ($100-199 annual donation): Ned Alexander, Black Creek BC • Andrea Carol Anderson, Campbell River BC • Robert Bach, Barriere BC • Howard Bashaw, Gabriola Island BC • Rosemary Baxter, Courtenay BC • Geoff Bennett, Victoria BC • Andrew & Catherine Black, Comox BC • Gerald Bowes, Gabriola Island BC • Ian Brooks, Ruskin BC • Peter Broomhall & Sherry Loof, Vancouver BC • Ralf Burgert, White Rock BC • Arthur Caldicott, Saanich BC • John Cashore, Coquitlam BC • Anicca de Trey, Comox BC • Bruce Ellingsen, Manson's Landing BC • Peter & Diane Elliott, Manason's Landing BC • David Everest, New Denver BC • Janet Fairbanks, Courtenay BC • Christopher Fleck, Manson's Landing BC • Marjorie Garside, North Saanich BC • Harvey Gee, Coldstream BC • Sally Gellard, Courtenay BC • Alison Graves, Nanaimo BC • Penny Hacking, Courtenay BC • Sheila Haegedorn, Kaslo BC • Clarence Bruce Hainer, Heriot Bay, BC • Marian & Ken Hargrove, Salt Spring Island BC • Chris Hilliar, Courtenay BC • Joy Jeffries, Hornby Island BC • Heidi Juergens, West Vancouver BC • Peter Lamb, Salt Spring Island BC • Otto Langer, Richmond BC • James and Ellen Leslie, Hornby Island BC • R. V. MacLeod, Sirdar BC • Sheryl McCumsey, Powell River BC • Dorothy & Des McIntosh, Santa Barbara CA • Angelika McLaren, Chase BC • Fred McMechan, Williams Lake BC • James Messinger, Courtenay BC • John Millen, Denman Island BC • Jackie Moad, Cedar BC • Dave and Rosemary Neads, Gabriola Island, BC • Maggie Paquet, Port Alberni BC • Eli Pivnick, Vernon BC • Anna Pottie, Fort McMurray AB • Colin Rankin, Whistler BC • Joan Sawicki, Hagensborg BC • Frances Slaney, Victoria BC • Eileen Sowerby, Quadra Island BC • Margaret Steele, Grand Forks BC • Sheila Malcolmson & Howard Stiff, Gabriola BC • Dave Talbot, Comox BC • Thomas Tinsley, Mackenzie BC • Renate Weigel, Duncan BC • Mark Whitear, Saltspring island BC • James Wilson, West Vancouver BC • Kathie Woodley, Courtney BC • Eleanor Wright & Van Andruss, Lillooet BC • Mette Wullum, Hornby Island • Susan Yates, Gabriola Island BC • John & Betty Zaikow, Powell River BC

Sustainers ($50-99 annual donation): Que Banh, Victoria BC • Jack Barrett, Lasqueti Island, BC • Stephen Belfry, Heriot Bay BC • Mike & Arlene Bell, Comox BC • Bruce Bird, Lasqueti BC • Melanie Boulding, Nanaimo BC • Darlene Brown, Vancouver BC • Fred Brown, Sooke BC • Hermann Bruns, Mara BC • Michael Caditz, Vancouver BC • Steve & Janet Chomolok, Errington BC • Craig's Canine Services, Hornby Island BC • Susan & Daniel Donnecke, Victoria BC • David Duncan, Smithers BC • Alison Fitzgerald, Gabriola BC • Jill Amanda Gamley, Salt Spring Island BC • Janet Gemmell, Courtenay BC • Paul George, Gibsons BC • Frances Hill, Salt Spring Island BC • Ann-Marie Hunter, Kamloops BC • Alan James, New Westminster BC • Dan Jason, Salt Spring Island BC • David & Elizabeth Kidd, Duncan BC • Gloria Jorrg, Nanaimo BC • Harold Leto, Portland OR • Janet Marshall, Courtenay BC • Michael Maser, Gibsons BC • James Musgrove, Gibsons BC • A. John Parkyn, Quathiaski Cove BC • Tom Pater, Courtenay BC • Bob Peart, Saanich BC • Jane Petch, Saltspring Island, BC • Jo Phillips, Sooke BC • Jim Pine, Victoria BC • Claudette Preece, Courtenay BC • Dona-lyn Reel, Gibsons BC • Joan Sell, Campbell River BC • Diane Sharp & Ben Girard, Qualicum Beach BC • Daniel Siegel, Hornby Island BC • Elaine Smith, Oliver BC • Antoinette Spoor, Nanimo BC • L. Miyo Stevens, Duncan BC • Bob Stirling & Pam Smith, Regina SK • Pim Van Oeveren, Salmon Arm BC • Jay van Oostdam, Comox BC • Emmy Van Wissen-Costosa, Vancouver BC • Manfred Winter, Bowser BC • Elizabeth Wootten, West Vancouver BC

JOIN OUR DONORS
& SUPPORT INDEPENDENT MEDIA
www.watershedsentinel.ca/donate

Watershed **Sentinel**

Box 1270, Comox BC V9M 7Z8
orders@watershedsentinel.ca
250-339-6117 | www.watershedsentinel.ca/store

☐ 1 Year (5 issues) Canada $25 ☐ 2 Years Canada $40 ☐ Evergreen subscription ($25/year, automatic renewal by credit card)

☐ Bundle** 1 year: 5/$40___ 10/$70___ 15/$100___ ☐ 2027 Calendar PLUS 1 Year (5 issues) Canada ONLY $35

☐ Donation ☐$20 ☐$50 ☐$100 ☐Other _____ Monthly $_____ a month** (by credit card)

***** Monthly donors receive a free subscription***

Name:_____

Address:_____

City:_____ Prov:_____ Postal Code:_____ Phone:_____

Email:_____

☐VISA ☐Mastercard Number _____ Expiry: _____/_____ CSC _____

Total Enclosed _____ Payable to Watershed Sentinel. Thank you very much!

Holiday Gift Package!

$35

A beautiful 2027 Wild Canada: Endangered Species and Spaces calendar **AND** 1-year subscription to the jam-packed Watershed Sentinel news magazine, shipping included.



GRASSROOTS ENVIRONMENTAL NEWS

— for BC and beyond —

www.watershedsentinel.ca/store | 250-339-6117 | orders@watershedsentinel.ca

---

If undeliverable, return postage will be paid by:

Watershed Sentinel
Box 1270
Comox BC
V9M 7Z8

Publications Mail Agreement No. 40012720

Postage Paid
at Comox BC
Canada
V9M 7Z8