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Watershed

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Environmental News for BC & Beyond

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Features



Lithium Valley

Getting out on the land in southern California, where the critical minerals rush threatens to create new sacrifice zones.

Enough

What if we could change social values to reflect the idea of sufficiency? We can, and we must. Excessive personal consumption should be as universally condemned as smoking while pregnant, while simply being content with enough is priceless.

Content

3,5	News Shorts From wild horses to ancient farms to dammed sludge	10	Logging Parks? We must continue to defend our hard-won protected areas	27	Arbutus Spirit Understanding an iconic West Coast tree species
4	Alberta Grudge Never mind the whining, oil production has boomed	11	OrcaLab Legacy Five decades of ethical cetatean research on the coast	28	Rivers Alive Adventures in understanding the personhood of nature
6	Trump Card New laws in BC threaten democracy and reconciliation	14	Go to the Forest Bill Jones found guidance in the forest he fights to protect	36	Wild Times Roadblock rock
8	Down the Pipe BC's energy regulator is pushing a conflict-ridden pipeline	16	Arctic Front Extraction and geopolitics heat up in the global north		

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www.artbypeggyfletcher.com

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Editorial

Delores Broten

Pandora's Box

These are perilous times, with megalomaniacs running amuck and climate change pretty well baked into the global systems. The response of Canada's federal and provincial leaders has been to double down on resource extraction, ditching environmental assessment and indigenous consultation under the guise of a national economic emergency.

There has been no examination of basic assumptions, such as the need for exports and profits. No consideration of concepts such as limits to growth or sufficiency – it's "Let 'er rip, boys!" Pulling out all the stops with no time for reflection as we empty Pandora's box.

We have to remind ourselves and our readers how the story ends – at the very bottom of Pandora's box, after all the grief, greed, and misery, there was hope, which also flew out into the world.

For 34 years this magazine has been documenting the ups and downs of resource extraction, the triumphs and failures of learning to live within our ecological means. We give away hundreds of copies as part of our environmental education mandate.

And that's where you come in, as a subscriber, as a donor, helping us raise the questions unasked in these hectic times, and funding free copies for those who need them. We really enjoy bringing you this magazine: thank you. Help us keep it up!

—Delores Broten, Comox, BC, June 2025

What's new at the 'Shed

Our readers are some of the best-informed people around, thanks to our in-depth, fact-checked, expert stories. Pass it on! Become a bundle subscriber and get 25 magazines a year (five of each issue, or more if you want) for only \$40, and share with your friends. (And/or: join our circle of donors to fund our community distribution directly!)

All the folks who send their lovely photos and artwork – we appreciate them so much! We often re-use the cards by sending them to our donors so they can enjoy them too. We also love hearing from our readers. Got something on your mind? Send us a letter!

Correction: We got ahead of ourselves when we wrote in the May newsletter that genetically-modified salad greens were already on supermarket shelves. But researchers from the Canadian Biotechnology Action Group warn we could see them soon.

Renewal notices aren't cheap! Each one costs about \$4. It's been years since we raised our subscription rate, but every time postage and printing prices go up, we get a little anxious. **You can help** by renewing your subscription early, using the auto-renew option at www.watershedsentinel.ca/store, and/or becoming a monthly donor (set up at watershedsentinel.ca/donate or by calling us at 250-339-6117).

Young folk want internet boundaries

Getting Real

New research from the British Standards Institute found 47% of 1,293 Brits aged 16-21 surveyed would prefer to be young in a world without the internet, with 50% saying a social media curfew would improve their lives. A quarter wanted phones banned in schools, and 68% said they felt worse about themselves after spending time online.

“We’ve built a world where it’s normal for children to spend hours each day in digital spaces designed to keep them hooked,” said Daisy Greenwell of Smart Phone Free Childhood. “Young people are now asking for boundaries – curfews, age checks, meaningful limits, and real protection. They are ready for change.”

—www.bsigroup.com
May 20, 2025

Mexico enshrines maize protection

Hell No, GMO!

On March 17, the Mexican government amended its constitution to prohibit the planting of genetically modified (GM) corn seeds. The reform enshrines the *de facto* ban on GM corn planting, in place since 2013, and mandates federal promotion of traditional agricultural practices through investment, research, and institutional strengthening.

The amendment comes on the heels of a December 2024 trade dispute panel ruling that Mexico’s 2023 Presidential Decree, which sought to restrict the use of GM corn in dough and tortillas and phase out the use of glyphosate, violated the US-Mexico-Canada Agreement.

—www.foodtank.com, April 7, 2025
—www.bdlaw.com, April 4, 2025

Indigenous agriculture site found

The Oldest Farm

Archeologists say they’ve uncovered what are likely the largest intact remains of an ancient Native American agricultural site in the eastern half of the US. Researchers used a laser-equipped drone to fly over more than 300 acres of a forested area in northern Michigan and map subtle features on the surface of the ground. Parallel rows of earthen mounds were revealed – ancient raised gardening beds that were used to grow crops like corn, beans, and squash by the ancestors of the Menominee Indian Tribe of Wisconsin, in the centuries before European colonizers arrived. The mounds appeared to continue on beyond the surveyed area, the researchers say, showing agriculture at a surprisingly vast scale.

—www.npr.org
June 6, 2025

What AI shares with its masters?

Power-Hungry

The use of artificial intelligence by Amazon, Microsoft, Alphabet (Google), and Meta (Facebook, Instagram, WhatsApp) spiked their emissions by 150% between 2020 and 2023, due to the vast amounts of energy required to power data centres, according to a United Nations report.

“The rapid growth of AI is driving a sharp rise in global electricity demand, with electricity use by data centres increasing four times faster than the overall rise in electricity consumption,” the report found. Carbon emissions from the top-emitting AI systems are predicted to reach up to 102.6 million tons of carbon dioxide equivalent per year.

—www.reuters.com
June 5, 2025

New population discovered in park

Precious Possum



After decades of searching, researchers have discovered hidden-camera images of the Leadbeater’s Possum in the forests of Kosciuszko National Park in New South Wales, Australia. The tiny marsupial “moves like greased lightning” and is notoriously hard to spot. Scientists had thought the only remaining populations – some as low as 40 animals – were 250 km away in Victoria. While the discovery doesn’t alter the possum’s critically-endangered status, the existence of a separate, distanced population cuts the risk a single megafire or other catastrophe could push the species to extinction.

—www.theconversation.com
June 2, 2025

Kertagy return to Kazakh steppes

Wild Horses

Seven more Przewalski’s horses, also known by the ancient Kazakh names Kerkulan and Kertagy, arrived in Kazakhstan on June 3 as part of an international effort to restore the species in its historic habitat. Przewalski’s horses are the last truly wild horses native to the steppes of Kazakhstan, Mongolia, and China. After two centuries of absence, Kazakhstan began reintroducing them last June.

—www.astanatimes.com
June 4, 2025

Alberta's Grudge

Oil and gas production has boomed

by David Hughes

Danielle Smith has long claimed that federal government policies under ten years of Liberal rule have damaged Alberta's oil and gas industry by reducing investment, limiting market access, and threatening jobs and economic growth. Like Smith, Pierre Poilievre has repeatedly claimed that Liberal policies have hindered Alberta's oil and gas sector.

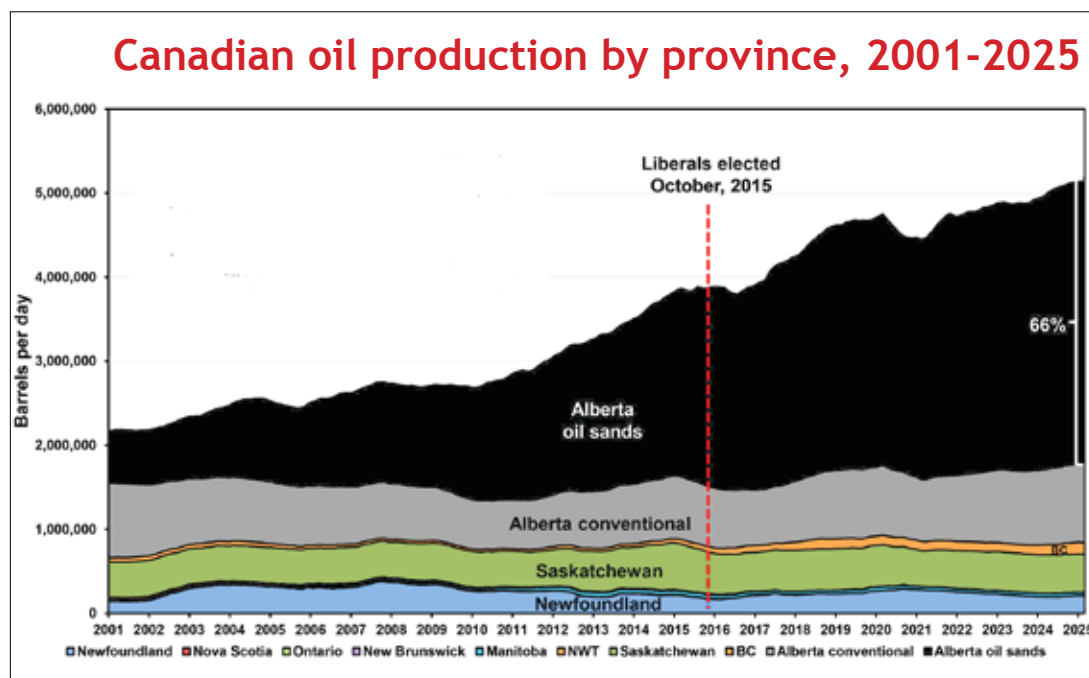
In fact, the oil and gas industry in Alberta has boomed under the Liberals:

- Alberta oil production has never been higher, with production growing 42% since the Liberals took office in 2015.
- Because of Alberta's oil production growth, Canadian production is at an all-time high, making Canada the fourth largest oil producer in the world.
- The Liberal government financed a \$34 billion pipeline to the west coast to expedite the development of Alberta's oil and gas sector.

Smith's claims that Alberta's economic growth has been hindered by the Liberals is false, as shown by the numbers:

- Alberta's economy has grown much faster than the Canadian average: Alberta grew 2.3% in 2023 versus 1.53% for the Canadian economy as a whole, and 2.7% in 2024 versus 1.6% for Canada.
- Alberta has experienced the nation's second-highest economic growth since the COVID recession.

Smith and Poilievre apparently don't care about Canada's international emissions reduction commitments, as they both rail against Liberal policies such as the emissions cap. Oil and gas production was responsible for 30% of Canada's emissions in 2023 and Canada needs to do more, not less, to address them. Oil sands, which are the most emissions-intensive form of oil, comprise 66% of current Canadian oil production and are the main source of future production growth.



This chart illustrates Canadian oil production by province from 2001 to 2025, including the years that the Liberals have been in power.

David Hughes is an earth scientist who has studied the energy resources of Canada for four decades, including 32 years with the Geological Survey of Canada.

(data from Canada Energy Regulator, 12 month trailing moving average, June, 2025) © Hughes GSR Inc, 2025

Countering oil industry misinfo

Don't Worry, AB

An April report from the Macdonald-Laurier Institute, an oil-friendly, pro-free market think tank, finds “sufficient pipeline capacity” for western Canadian oil, throwing cold water on Alberta’s demand for pre-approved oil corridors to the Pacific. Despite relentless complaints about Ottawa’s energy policies, Alberta’s output has increased by 40% since 2015, and the MLI report states “Canadian oil prices are remarkably strong at the moment.” The biggest producers saw a ten-fold increase in profits, hitting an average \$44.3 billion each in 2021-22.

There are exactly zero new oil pipelines currently proposed in Canada by the private sector, despite PM Carney’s “build, baby build” mantra – leaving Canadians to wonder whether the public will be expected to pay for yet another eye-wateringly expensive pipeline.

—www.desmog.com
May 23, 2025

Bill 5 suspends due process

Anger in Ontario

First Nations warn confrontation is brewing in Ontario after Premier Doug Ford’s government moved to suspend provincial and municipal laws for certain projects deemed to have economic importance. Ford has cited the need to speed up large projects, particularly mines, in the face of US President Donald Trump’s trade war. Bill 5 has sparked a firestorm of anger among First Nations communities who say it tramples their rights and ignores their concerns.

—www.aptnnews.ca
June 4, 2025

Climate change class-action suit

Nelson vs Big Oil

Nelson, BC is joining ten other BC municipalities in a proposed class-action lawsuit that aims to hold oil companies responsible for climate disaster costs. Slokan, Burnaby, Cumberland, Squamish, View Royal, Sechelt, Gibsons, Qualicum Beach, Port Moody, and Pemberton have already signed on to the suit, declaring that communities can no longer manage the skyrocketing costs of climate change. West Kootenay Sue Big Oil, West Kootenay Climate Hub, and West Coast Environmental Law are calling on other local governments to commit to this groundbreaking lawsuit.

—www.suebigoil.ca
May 7, 2025

Adding agriculture to solar energy

Solar Farmyards

A solar field project near Strathmore, Alberta has 110,000 solar panels sharing 130 hectares with 400 sheep, 40 pigs, 100 chickens, and a new bee-keeping set-up called the Bee Cube. As the solar industry has expanded, the Alberta and Ontario governments have responded to rural landowners’ concerns about the impact on farmland by introducing rules that restrict solar panel development on prime agricultural land and require solar operators to include some type of agriculture. The Strathmore project is seen as a “proof of concept” that rather than eating up arable land, solar fields can go hand in hand with farming.

—www.cbc.ca
May 30, 2025

Petition to stop tailings expansion

Dammed Sludge

The Xat’sūll First Nation says it has halted an increase in tailings (mining waste) at the Mount Polley mine pending judicial review in BC Supreme Court. The case names the Mount Polley Mining Corporation and parent company Imperial Metals. Both were charged after the same tailings dam collapsed in 2014. That collapse released 25 billion litres of contaminated sludge into salmon streams, lakes, and drinking water sources and cost taxpayers \$40 million. Meanwhile, the company says it will continue working to raise the dam and increase the capacity of the tailings reservoir it holds.

—www.thenarwhal.ca
May 9, 2025

Human impacts linked to landslides

Log, Burn, Slide

More than 600 landslides that struck southwest BC in November 2021 started in logged or burned forests, according to research published in *Earth Surface Processes and Landforms*. The study found almost half of the 1300 landslides and debris flows during the atmospheric river that flooded BC, killing six people and devastating 70,000 km² of mountainous terrain, originated in disturbed forests.

—www.biv.com
March 17, 2025

Eby's Trump Card

BC Premier's sweeping new laws threaten democracy

by Watershed Sentinel staff

Elected officials warn that new provincial legislation will disempower and destabilize local governments and First Nations, even as their titles promise the opposite.

BC's Bill 15, the *Infrastructure Projects Streamlining Act*, was passed May 28. Bill 7, the *Economic Stabilization (Tariff Response) Act*, is expected to be reintroduced after revision, with Premier David Eby conceding that the original bill overstepped Provincial authority by granting sweeping powers without proper democratic safeguards and oversight.

"History proves that strong local governments lead to thriving communities," notes View Royal councillor Damian Kowalewich. "But year after year, we've watched authority shrink while financial pressures grow, downloading responsibilities without the resources to handle them."

Bill 15 grants the provincial cabinet unilateral power to designate infrastructure projects as "provincially significant," allowing them to bypass municipal planning, override local bylaws, and fast-track approvals without consultation.

Bill 7 provides retroactive legal cover for provincial actions that override municipal authority, including Bill 44, the province-wide residential upzoning that trumps local zoning laws and Official Community Plans, passed in 2023.

Meanwhile, Bill 14, the *Renewable Energy Projects (Streamlined Permitting) Act*, adopted in May, accelerates development while dropping requirements for meaningful Indigenous consultation, in spite of the Province's stated commitment to First Nations' free, prior, and informed consent. A Lil'wat Nation news release states that Bills 14 and 15 "remove First Nations participation from key decision-making around project development."

A pattern of centralized overreach

"This government has adopted a disturbing trend: declare a crisis, bypass consultation, and impose a top-down solution," said View Royal Mayor Sid Tobias.

The Province chose to introduce and enact these new laws without consulting local governments or First Nations. Blind-siding municipalities with such impactful legislation reflects a broader breakdown in provincial respect for local governance, according to a press release from the City of View Royal.

Especially troubling is the government's growing use of non-disclosure agreements with municipalities while drafting new laws. "This is not how a democratic society operates," Tobias said. "When governments consult the public behind closed doors and forbid them from speaking, they are not practicing democracy – they are managing perception."

This tactic contradicts Section 2 of BC's Community Charter, which recognizes municipalities as a level of government and calls for meaningful consultation on matters of mutual interest.

"I suspect many municipal councils are reluctant to speak out for two reasons," said Tobias. "One, they did not know about the legislation or its implications and two, they are fearful of being denied funding for critical projects that affect our safety and quality of life such as water, sewer, roads, sidewalks, and transportation." He notes that local governments will be left to fund and support projects they were excluded from planning. The result is higher costs, greater strain on services, and frustrated communities.

"The erosion of democratic norms does not come all at once – it comes through measures like these," warned Mayor Tobias. "What we are seeing is the centralization of power, suppression of dissent, and erosion of process that mirrors some of the most troubling trends we've seen elsewhere, including under the Trump administration in the United States."

"These are not theoretical risks. They are present, unfolding, and profoundly dangerous to the integrity of public governance in British Columbia."

Read the full press release:
<https://tinyurl.com/Tobias-on-Bills-15-7>

Tracking Fracking

Communities **need to know** gas extraction chemicals

by Delores Broten

In the midst of all the heightened business promotion of new LNG terminals for the BC coast, the hidden impact of gas extraction seems to have been forgotten. But thousands of people, not to mention livestock and wildlife, are subject to the health impacts of the fracking process that extracts the gas.

The Canadian Association of Physicians for the Environment and the American Physicians for Social Responsibility are outspoken on the impacts. In fact, the Science of Birth Centre at the University of British Columbia sponsored a webinar June 10 on the latest findings of impacts on women and infants. Studies show links between fracking sites and acute childhood leukemia, premature birth, low birth weight, and lifelong health consequences.

Banned in Europe

Fracking, or hydraulic fracturing, is the process of pouring pressurized sand, water, and assorted chemicals into wells and labyrinths of horizontal underground lines to extract oil and gas. The technique is banned in numerous EU countries, including Germany, France, and Spain, as well as in Australia. It is, however, predominant in North America, especially BC and Alberta; and in North Dakota, Pennsylvania, and Texas in the US.

In May, a report from Physicians for Social Responsibility Colorado revealed widespread non-compliance with Col-

orado's oil and gas chemical disclosure law, enacted in 2022, which also banned the use of PFAS ("forever chemicals") in drilling fluids. The report estimated that at least 30 million pounds of chemicals were injected into 675 non-reporting wells in 21 months.

Voluntary reporting

In Canada, the only public reports on chemicals used in fracking are voluntarily listed on www.fracfocus.ca, a website run by the resource departments and regulatory agencies of the various provinces and territories, including the BC Oil and Gas commission. However, the information contains many exemptions. It is difficult to compare to National Pollutant Release Inventory (NPRI) units of measurement, and public exposure remains unknown.

Now, a working group is renewing calls to the federal government to add fracking chemicals to the NPRI to advance communities' right to know. Currently, fracking is considered part of the oil and gas extraction process, which is exempt from NPRI reporting. The expansion of the industry has concentrated wells in Northeast BC and Northwest Alberta, often close to residential neighbourhoods. Proposed LNG plants on the BC coast could soon increase that concentration extensively, with the accompanying use of water and sand, and the release of a mix of largely-unknown chemicals to air and land and water.

At this point, it has been determined that 48 chemicals listed on Canada's NPRI are used in fracking, as reported to www.fracfocus.ca, although vast amounts of products are labelled "trade secrets" and not disclosed. The NPRI has mechanisms to force companies to reveal those trade secrets, even if only to government officials.

The latest report on why the Canadian government needs to list fracking chemicals on the NPRI is available at www.watershedsentinel.ca/npri

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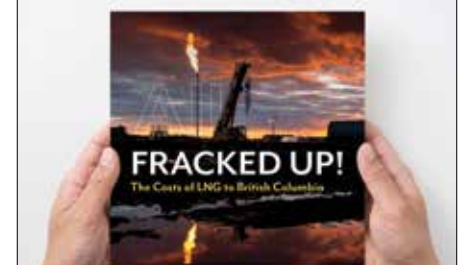
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Down the Pipe

BC's energy regulator pushes a conflict-ridden pipeline

by Sidney Coles

The Province has declared that the controversial Prince Rupert Gas Transmission gas pipeline (PRGT) is “substantially started” and may proceed under its decade-old environmental assessment certificate.

The pipeline project is sparking legal pushback from Indigenous communities, local communities, scientists, and conservation advocates. The groups are raising red flags over what they call a failure on the part of the BC Energy Regulator to follow its own rules.

Pro-democracy and climate organizers launched sit-ins at the Ministry of Energy and Climate Solutions in Victoria and BC Premier David Eby's office in mid-May, demanding the BC government reject the US-backed PRGT pipeline.

The BCER is greenlighting the 900-km pipeline without completing a mandatory assessment of the pipeline's cumulative environmental impacts.

The BCER's regulatory obligations were thrown into question on May 28, when the Legislature passed Bill 15, *The Infrastructure Project Act*. The Act gives the Lieutenant Governor and Infrastructure Minister sweeping powers to expedite approvals by removing assessment requirements for public projects it deems “provincially significant.” Those projects include housing, schools, critical mineral mines, and pipelines.



©Wilderness Committee

Eby is using Trump's tariffs and political threats as reasons to expand the LNG industry. However, approving the PRGT pipeline puts more control of Canada's energy infrastructure into the hands of American billionaires, including Blackstone CEO David Schwarzman and President Johnathan Gray. Both are Republican megadonors and the biggest landlords on the planet, with more than \$400

billion in real estate assets worldwide. Blackstone's affiliate, Blackstone Energy Transition Partners, plans to invest \$150 million in equity securities with Western LNG, PRGT Ltd's co-owner with the Nisga'a Lisims (elected government).

Grand Chief Stewart Phillip of the Union of BC Indian Chiefs said, “We are risking the prosperity and health of future

generations for profits in the hands of American investors. I am proud to stand in solidarity with the Nisga'a, Ts'msyen, Gitanyow, Gitksan, and Wet'suwet'en people who will continue to fight against this project."

Last January, PRGT Ltd. declared, "Ksi Lisims LNG's Application for an Environmental Certificate has undergone a comprehensive technical review, including engagement with participating Indigenous nations, regulators, stakeholders, and the public, and is now complete."

This precipitous declaration was false. Representatives from the Skeena Watershed Conservation Coalition, the Kispiox Valley Community Centre Association, and the Kispiox Band Council travelled to BC Supreme Court in April 2025 to testify that the BCER had amended permit conditions to allow preliminary construction on the pipeline, even though a cumulative effects assessment on the project has not been conducted.

The representatives called out the BCER's ongoing lack of transparency they feel undermines environmental and procedural accountability which threatens vital ecosystems, salmon populations, and the rights of Indigenous communities whose territories lie in the pipeline's path.

Cumulative impacts

BCER is now allowing PRGT Ltd. to move forward on what the company calls "Section 5B" of the pipeline, located on Nisga'a Nation territory. The regulator is relying on a decade-old environmental assessment. The move sidesteps a permit condition that was added in 2022 that explicitly requires a full evaluation of the project's cumulative effects before construction proceeds.

The pipeline puts more control of Canada's energy infrastructure into the hands of American billionaires.

Shannon McPhail, executive director of SWCC, says, "The regulator seems to be breaking their own permit conditions to try to push the project through in order to avoid the expiry of their environmental assessment certificate."

The permit condition created by the BCER was clear that a cumulative effects assessment of the project must be completed prior to construction start. But PRGT Ltd. and Nisga'a Lisims, the pipeline's owners, now argue that the definition of "project" only meant Section 5B and not the pipeline itself.

Nisga'a Lisims' lawyers made it clear their Nation's government did not want to update the old cumulative effects assessment. The BCER abdicated the defense of its actions to PRGT Ltd., which, in turn, defended the regulator's decision in deference to its American shareholders.

Indigenous rights denied

Despite the PRGT pipeline crossing 50 km of Gitanyow Nation territory, the Environmental Assessment Office excluded Gitanyow from "participating Indigenous nation" status under BC's Environmental Assessment Act. The Environmental Assessment Office concluded there was "no reasonable possibility" that the project would adversely affect Gitanyow's land rights, offering its members only the chance to submit comments during a public review period.

The project is sowing bitter seeds of conflict between the Gitanyow and the Nisga'a nations, dividing family and friends who have members in both communities. "Perhaps the Province's approach to their own DRIPA legislation only applies to those Nations who say yes to massive LNG projects while insulting those Nations and communities who raise reasonable concerns," said McPhail.

Janelle Lapointe of Stella'ten Nation said, "There is an overwhelming sense of disempowerment. I have heard, over and over, we might as well benefit from projects, since they will happen with or without us. This is why I am outspoken about the false choice of economic reconciliation and the weaponization of systemic poverty."

"It is particularly alarming that the government is willing to bring more violence and surveillance to opposing Nations just to increase profits of wealthy American investors. If the project really is in the best interest of British Columbians and First Nations along the pipeline route, it should have no problem withstanding an environmental assessment and going through the due process of getting free, prior, and informed consent," Lapointe told the *Watershed Sentinel*.

Sidney Coles holds two PhDs. She is a journalist and writer and lives in Victoria on the traditional territory of the lək̓ʷəŋən people.

Logging BC Parks?

Why we must defend our hard-won protected areas

by Loys Maingon

We forget at our peril that whatever parks exist today were wrested from the claws of industry and developers in a constant struggle. Parks are not a given — they can be irreparably destroyed with the stroke of a pen.

Speaking at the Council of Forest Industries in April, BC Premier David Eby and Forests Minister Ravi Parmar reasserted that the government's priority is to increase the industry's access to wood fibre and to protect jobs.

In this time of global economic crisis, national interests are a handy cover for the acceleration of business as usual and the suppression of environmental interests. What we see Trump doing overtly in the US, we see our provincial and federal governments doing surreptitiously. Michelle Conolly of Conservation North commented, "Minister Parmar promoted the notion that all natural forests, including old growth, require logging in order to be resilient, which is one of the most Orwellian, clown-world statements one could make about natural forests and nature."

The priority of Canadian politicians, and a majority of the public, is the economy. It is not the environment. As per the *BC Parks Act*, many BC parks are viewed primarily as recreational sites. According to the Christy Clark-era *Parks Amendment Act 2014*, which the NDP never repealed, BC Parks boundaries can be changed to accommodate industrial development.

This is no time for the many environmental organizations around BC that claim to be "Friends of ..." to abandon their activist mandates to protect our natural heritage. Predators are by definition patient and always on the lookout for prey opportunities, as the latest statements from the Minister of Forests evinces. The wolf is always at the door.

The only politics that matter are the politics of the planet we steward.

Recent developments in the US, and what they mean for Canadians' relationship to our parks, should be a source of concern long before the logging trucks roll in. The Trump administration is opening national forests to logging, the Arctic Wildlife Refuge to drilling, and the Tongass forest to industrial development. It is re-drawing national monument and park boundaries. It has laid off thousands of forest service and National Parks staff.

Based on reports in American media, foreign tourists who were planning a US parks vacation are now planning to vacation in Canada. This poses an immediate problem for BC parks. Little or no consideration seems to have been given to the fact that BC parks are already in crisis, with campsites, parking, and trail

systems over capacity, and staff barely able to keep up with maintenance.

From a conservation perspective, pristine areas of BC parks are stressed by growing outdoor recreation pressures. Against the background of these pressures plus climate change and the extinction crisis, protecting sensitive conservation areas needs to be the priority.

If we are to meet the increased recreational demands promoted by the provincial and federal governments, BC parks need to be expanded to create climate and recreational buffers. Currently, parks are bordered by clearcuts and young second growth. This increases fire potential and creates an edge effect on park biota. Buffers around existing park borders need to be expanded and supported by restoration efforts. If parks are to endure for future generations, they must be fully protected — and when governments serve industry, it is only the public that protects nature.

The only politics that matter are the politics of the planet we steward and hand to future generations. Politics that propose to damage this planet by irreparably logging in old growth protected areas, as suggested by Eby and Parmar, are the opportunistic politics of economic criminality, and should be decried as such.

Loys Maingon PhD, RPBio is a retired biologist and BC Director of the Canadian Society of Environmental Biologists.

The Orca Peacekeepers

Five decades of ethical cetacean research on Hanson Island

by Mark Worthing

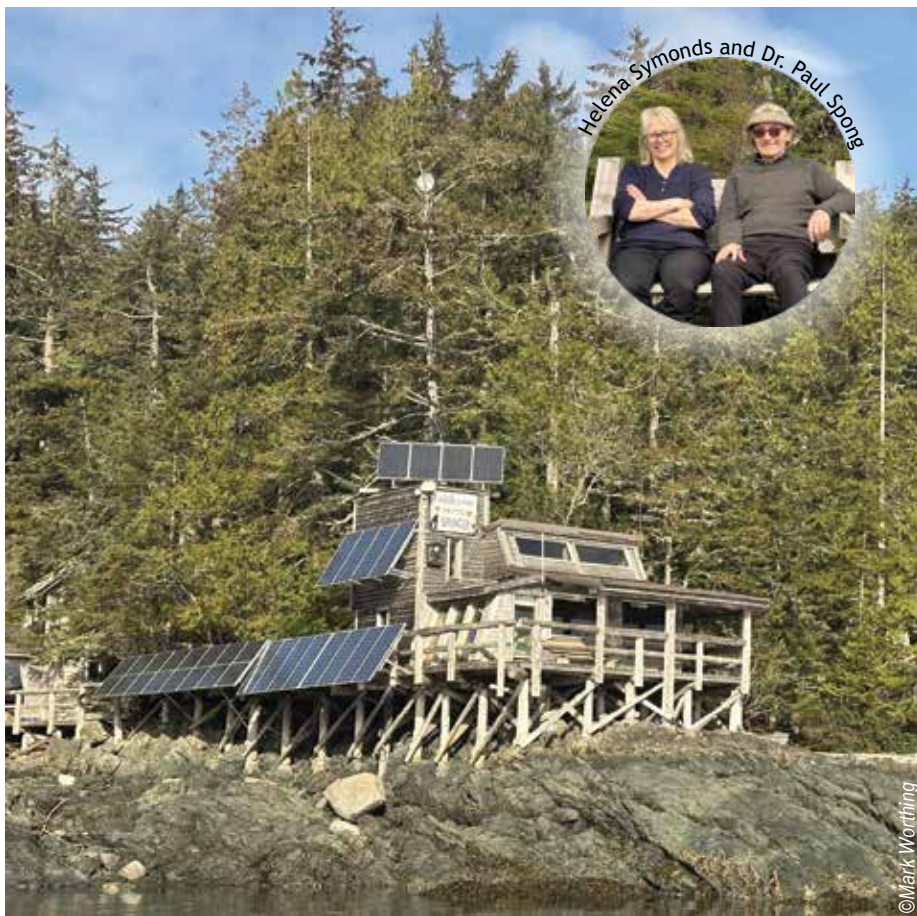
Through sound, we can see clearly the underwater environment of ‘*Walas Max’inux*’ – the great orca. Our terrestrial eyes limit how we perceive our natural environment, but cetacean acoustics specialists Helena Symonds and Dr. Paul Spong have opened a portal that transcends this limitation.

Technology has become an extension of our senses. And for half a century, OrcaLab has been looking through this acoustic portal at the behavioral ecology, matriarchal social structures, and linguistic cultures of *max’inux* in Kwakwaka’wakw territory.

OrcaLab is the research station for the Pacific Orca Society, located between Johnstone Strait and Queen Charlotte Sound in what can affectionately be known as “downtown Kwakwaka’wakw territory.” This is the core habitat of the Northern Resident population of the greatest marine predator and most widely distributed marine mammal on earth. The famous rubbing beaches of Robson Bight Marine Sanctuary and Tsitika Provincial Park are OrcaLab’s front yard, one of the few locations where orcas have a brief moment of refuge from otherwise heavily-trafficked and commercially-impacted waterways.

In the beginning

Dr. Paul Spong arrived on Hanson Island in 1970 after consulting with Kwakwaka’wakw fishermen and knowledge keepers who advised him on optimal ar-



reas with which he could develop a unique methodology of non-obtrusive, observation-based orca research. What started as a seasonal initiative grew into year-round monitoring and a precedent-setting framework for ethical research that centres animal welfare.

Helena Symonds joined Paul ten years later. Together, they built a family and

ramped up the acoustics lab. Helena developed the assistant program which has brought hundreds of international volunteers to Yukusam (Hanson Island) from Japan, the United Kingdom, Argentina, France, and beyond. Helena and Paul have brought the everyday lives of orcas to light with a central do-no-harm ethic of

Continued on Page 12 ➔

increasing people's access to nature and the incredible world of whales.

Forging new tools from old tech

Developing the research methodology itself was a beautifully innovative repurposing of salvaged equipment from the Second World War. Creative thinking from the anti-war movement spawned the first hydrophone that OrcaLab placed in the water at Parson Island in Blackfish Sound. It was made from salvaged sonobuoy equipment once used by the Navy to detect Japanese ships off the coast. The late Bill Ter Brugge, an ex-merchant sailor and then hospital engineer in Alert Bay, salvaged and recycled military transducers found in the old Coast Guard station and helped convert them from a military application to a mechanism that would enable greater insight and appreciation for our cetacean relatives. And this simple recalibration opened a gateway to the more-than-human world beneath the surface of the ocean.

The spirit of the sixties

The revolutionary spirit of ecology and social movements born in the 1960s carries on through Pacific Orca Society's legacy. OrcaLab is a crucial ally to Indigenous resistance and resurgence efforts, as well as fighting destructive logging practices, defending cultural heritage sites, advocating for wild salmon, and pushing back against the pollution and disease spread by industrial fish farms. They joined the fight for an end to the inhumane practice of cetaceans in captivity, created conservation solutions for old growth and marine mammals, and campaigned to stop the destructive practice of commercial whaling globally.

If you or your parents have ever signed a "Save the Whales" petition or supported a Greenpeace campaign, you should probably give Paul a hug (and maybe a donation to OrcaLab). Not only was he a founder of Greenpeace, he's regarded as the one of the original thinkers and practi-

tioners of the Save the Whales movement that led to a cascade of global socio-political and ecological impacts.

Closer to home, OrcaLab has helped launch the careers of many who came to Hanson Island to learn, and left to establish new, far-reaching campaigns and projects. Researchers around the world depend on the work of biologist and wild salmon advocate Alexandra Morton and the Salmon Coast Field Station. Others who cut their teeth at OrcaLab include the late conservation filmmaker Twyla Roscovich, the late anthropologist and culturally-modified tree expert David Garrick (Walrus), and Jared Towers, Cetacean Research Technician at DFO Canada and Executive Director at Bay Cetology. Another crucial offshoot is Cetacea Lab in Gitga'at territory near Hartley Bay, which is run by Janie Wray and Hermann Meuter.

There is an undeniable magic that the OrcaLab community has cultivated over the



©Mark Worthing

The Ma'amtagila have an ancient treaty
with the orca.

decades, and it's impossible to measure its local and global impact. But those of us who have benefited from the gifts of OrcaLab know that we will always pay homage to Paul, Helena, and the team whose shoulders we all stand on.

Clogging the passage

Through the decades of their research, one thing has become abundantly clear: the Inside Passage of Vancouver Island is increasingly jammed with massive cruise ships, articulated tug barges transporting petrochemicals, fishing vessels, logging barges, sports fishing, whale watching, and tour boats. The majority of the time researchers cannot listen to whales and dolphins without a deafening level of boat noise. It's not uncommon to have one large, slow ship audible within range for several hours at a time. And it's rare to have no boat noise in the entire region for more than a few hours at a time.

Noise pollution is as great a threat to cetaceans as chemical pollutants and marine debris, but Transport Canada has done very little to mitigate the cumulative and acute impacts of this stress on the lifeways of cetaceans.

Passing the torch

Something special is happening at OrcaLab right now. The founders are passing the torch.

There have been many generations of researchers, advocates and community leaders who have graduated from OrcaLab's nuanced schooling and the magic of Hanson Island. Now a new generation of cetacean researchers, wilderness advocates, and marine mammal specialists is stepping forward to carry on the tradition of non-obtrusive, do-no-harm research.

Something special is happening at OrcaLab right now. The founders are passing the torch.

They will steward half a century of data and investigate the teachings hidden in the dialects of orcas, the songs of humpbacks, and the electric chatter of Pacific white-sided dolphins.

Veteran volunteers like Momoko Kobayashi and Tomoko Mitsuya, plus researchers, coordinators and technicians like Suzie Hall, Megan Hocket-Bennet, Claire Guillaume, Jérémie Collado, and Quin McIntire are the pillars of these operations, bringing the incredible lives of orcas to people around the world.

With the next generation comes a new political climate, a new era of reconciliation and decolonization, and heavier industrial and commercial impacts on cetaceans. New tools like AI machine learning and other advancements in science open new possibilities for understanding non-human kin and animal communication.

Portals to the future

In the beginning, a small military transducer was the key that unlocked a portal to the sonic world of orcas. What portals might be opened with eDNA sampling methods, or artificial intelligence's analysis of hidden algorithms in 50 years of acoustic data in the OrcaLab library? And what are the ethical implications with these new technologies? Does depending on AI for analysis cause more harm than good, considering the immense environmental impact of AI data centers and corporate consolidation of

the tech industry's love affair with the far-right and associated neofascist impacts on community?

What are the whales asking for? Have we been so focused on the means with which to communicate across species that we've missed the message altogether?

The Ma'amtagila are one of the tribes of the Kwakwaka'wakw peoples. They have an ancient treaty with the orca. Kwakwaka'wakw ancestral protocols resolved an ancient war where the *max'inux* and people were in conflict. They managed to broker a peace accord during hostile times, and since that time orcas have not breached the terms of that agreement. Have we?

Perhaps the next 50 years of OrcaLab's work will shine a light on how we can continue to seek peace with 'Walas *Max'inux* during uncertain times.

Mark Worthing is a settler of Scottish and English ancestry based on Vancouver island. He is a community organizer, researcher, and policy analyst working at the intersection of environmental activism, applied conservation biology, decolonization, and land-based methodologies.

Go to the Forest

Bill Jones found guidance in the forest he fights to protect



by Odette Auger

Elder Bill Jones (Pacheedaht, Tseshaht) is known as the voice who helped inspire the largest act of civil disobedience in Canadian history – the Fairy Creek blockades to defend some of the last remaining old growth forest in the world.

It was the forest that connected him to the Great Mother enough to find healing from residential school trauma, and it was the forest protectors who gave him the honorary title “Elder.”

Jones reflects on his path, and describes his younger self as “a standard logger. I was supposed to be a tough guy, head honcho and all that baloney. I was also having trouble with alcohol. It took me from 1968 until 1980 to quit drinking. And that was mostly through prayer and meditation.”

“My grandpa would say to me, ‘Sonny, you don’t go up to the forest to cut it down. You go up there to be quiet, and if you want, you pray and you meditate. But mostly you just be quiet and sit down.’”

Jones chuckles, saying he used to pretend he was going hunting, to spend the day up the mountain. His grandfather taught him, “‘When you do that often enough, you’ll leave the forest and you will know what to do and what to say without thinking.’ I didn’t realize that until after the fact,” he says, “when I finally walked in the forest and let myself go in quiet, that I started to change.”

Jones’ father taught him similarly to sit by the water’s edge to find guidance through quiet. “We wind up not having to think, and not having to manipulate situations. We will simply know how to manage them, through the flow of our Great Mother.” He learned about letting go and allowing the Great Mother to guide his life.

Jones emphasizes the importance of cultivating a calm, intuitive state of being rather than relying on force or aggression. He contrasts this approach with the destructive cycle of denial, deprivation, and depraved behavior he says has shown itself “in Hitler, in Trump, and also in some loggers. They were nurtured in a way that deprived [them] and denied their needs,” he says, “and they become deprived and demented. They say, ‘We have to cut it, though. We need to keep the mill running.’”

The experience of interconnectedness means “You can conquer our greatest evil – male selfishness,” Jones says. He links patriarchy and capitalism, explaining, “The whole concept of capitalism is based on greed that stems from selfishness, that stems from an inadequacy that a person is trying to fill and protect. This creates a system of denial that leads to a world of ‘let’s pretend,’ whereby we never ever get close to the truth.”

Elder Jones teaches us that by returning to the land and spiritual practices, Indigenous people can find healing and become good leaders for their communities. But there needs to be land – intact forests, undisturbed places – to return to.

The BC Government has extended temporary protections in the Fairy Creek watershed until September 30, 2026, and that gives Jones some hope. “I would like our band council to just pass a resolution saying that we’re not logging it, we’re leaving it.”

“For me, hope is more of a quiet plane that we come to in life. We are calm, and we are able to intuitively know what to do.”

For Jones, hope is not an expectation to wait for, or a wish. It’s also “not full of heart-pounding and resolve and motivation, gung-ho charge. For me, hope is more of a quiet plane that we come to in our life. We are calm, anything that comes to us doesn’t disturb us or make waves, and we are able to intuitively know what to do. I feel that our teachings have to go that way, but it’s very difficult to change people’s minds or make them listen.”

“There is hope, but you have to constantly go to the forest or go to your place of solace. You will always find a way.”

Odette Auger (Sagamok Anishnawbek) is an award-winning independent journalist and storyteller living on Klahoose territory in the Salish Sea. Follow her work at www.authory.com/OdetteAuger



Chronicles of the Forest

Scholars at Concordia University conducted a series of interviews with Bill Jones over the course of a year. They distilled his thoughts and ideas into a book, *Chronicles of the Forest: From the Walbran to Fairy Creek, What the Forest Needs, Our Heart Needs*. Read or download it for free at www.watershedsentinel.ca/billjones

Activist Injustice

In January 2024, logging company Teal Jones filed a lawsuit seeking \$10 million in damages from Bill Jones, the Rainforest Flying Squad, and more than a dozen individuals. The *Times Colonist* reported that the civil claim accused them of conspiring to “use unlawful means to conduct blockades” in order to cost the logging company money. Several of the named defendants, including Angela Davidson (Rainbow Eyes), rejected the claim, declaring that their only goal was protecting old growth forests at Fairy Creek.

“Elder [Bill] Jones has said so beautifully that it’s been a conspiracy of love – that’s the only conspiracy at play,” said Davidson, a deputy leader of the Green Party of Canada who is appealing a 51-day jail sentence for her role in the Fairy Creek blockades.

While Teal Jones’ claim against Jones and other Fairy Creek protectors is currently on hold, its 2021 lawsuit remains in play. The earlier lawsuit, which named the Rainforest Flying Squad and “persons unknown,” resulted in an injunction against interfering with logging at Fairy Creek and led to the arrest of over 1000 forest protectors.



Arctic Front

Extraction and geopolitics heat up in the global north

by Gordon Feller

Trump’s fixation on Greenland may get the headlines, but the bigger danger is a series of executive orders which will adversely impact the Arctic.

The White House is focusing on expanding resource extraction, reducing environmental protections, and increasing what the Administration defines as “the US strategic presence.”

One of Trump’s EOs reverses Biden-era restrictions on oil and gas exploration in Alaska, including in the Arctic National Wildlife Refuge and the Arctic Ocean. That EO rescinds the Biden administration’s ANWR lease cancellations, re-opens ecologically-sensitive areas previously protected under the Integrated Activity Plan for the National Petroleum Reserve-Alaska (Western Arctic), and directs US federal agencies to expedite permits and leasing for energy and natural resource projects in Alaska.

This will lead to expanded drilling and infrastructure development in ecologically-sensitive Arctic areas, and damage to fragile wildlife habitats critical for polar bears, caribou, and migratory birds. Humans will also feel the effects: The Gwich’in people face threats to their traditional ways of life, as do other Indigenous peoples who depend on Arctic ecosystems for subsistence hunting and cultural practices.

In early May, the US Department of the Interior announced plans to add a “High

Arctic” planning area to the federal offshore oil and gas leasing program, which could see the US selling oil and gas leases in Arctic Ocean areas more than 200 miles from shore, an area where US territorial rights are unclear. Trump’s team also decided to repeal all of the Biden-era efforts to block Arctic offshore drilling, opening the door for future leasing auctions. Increased offshore drilling will, of course, heighten the risk of oil spills in fragile Arctic marine environments. We know from past experience that these are exceedingly difficult to remediate due to ice cover, remoteness, and extreme conditions. Drilling activities disturb marine mammals, fish populations, and the broader Arctic food web.

In April of this year, Trump signed another executive order to accelerate deep-sea mining, including in US Arctic waters and, potentially, in international waters adjacent to the Arctic. This order instructs federal agencies to expedite the review and approval of seabed mining permits, bypassing ongoing international negotiations on environmental safeguards. A growing chorus of scientists argue that deep-sea mining is likely to cause irreversible damage to unique Arctic seafloor habitats. Past test-mining sites in the region have shown that recovery can take decades or longer, with unknown consequences for ecosystems.

One of the executive orders has been almost overlooked: “Restoring America’s Maritime Dominance,” which includes

a mandate to develop a strategy for US leadership and security in Arctic waters, citing the growing presence of foreign nations. A new and forthcoming “Maritime Action Plan” will lay out the Administration’s views on US commercial and military interests in the Arctic.

Competing global interests

There is some continuity in the Pentagon between Biden and Trump. In December 2024, Biden’s Department of Defense published an article on their website: “China Increasing Interest in Strategic Arctic Region.” The publication was prompted by a speech by Iris A. Ferguson, the US Deputy Assistant Secretary of Defense for Arctic and Global Resilience. Arguing that the Arctic strategic environment is changing, and that the US must dedicate more resources to this critical geography, she asked for increased attention to the activities of the People’s Republic of China in the Arctic.

China’s Arctic presence has evolved significantly in recent years. After a period of cautious engagement marked by failed infrastructure projects and a single icebreaker visit to Nuuk, Greenland, China took bold action in July and August 2024, conducting operations with three icebreakers in the region. This increased activity, coupled with plans for a new heavy icebreaker, suggests China’s intention to establish a permanent Arctic presence. The shift was so notable that in October 2024, the Russian state news agency RIA

Novosti declared that “the Arctic is becoming Chinese.”

China’s Arctic strategy stems from Xi Jinping’s 2014 declaration of China’s goal to become a “major polar power,” following its observer status in the Arctic Council in 2013. The region also holds strategic importance for China, both in terms of resources and geopolitics. China views the Arctic Ocean as the third Silk Road corridor, complementing its land route through Central Asia and the maritime Indo-Pacific route to Europe. This approach underscores China’s diverse interests in the region, including scientific research, resource exploitation, and potential shipping routes.

Meanwhile, Europe is not sitting idly by while superpowers make their moves. In 2024, Norway issued eight new oil

Drilling activities **disturb** marine mammals, fish populations, and the broader Arctic food web.

licenses in the Barents Sea, quadrupling the number of licenses granted in 2023. The massive Johan Castberg oil field in Norwegian Arctic waters started pumping in March. Equinor, the state-owned oil company, has also expressed renewed interest in developing the Wisting oil field, which would become the world’s northernmost oil field if approved.

Norway’s updated definition of the marginal ice edge zone in 2020 faced heavy criticism for aligning with oil interests rather than the physical location identi-

fied by the government’s own scientists. This controversial definition was upheld in the 2024 revision, keeping bigger areas accessible for the oil industry.

Instead of using Russia’s invasion of Ukraine as a justification for continuing Arctic oil pursuits, Norway should recognize Arctic oil drilling as a geopolitical threat and impose a ban on all new oil and gas exploration in the Arctic.

Gordon Feller is a journalist, consultant, speaker, and Smithsonian Institution Global Fellow based in California.



Canada is a wealthy nation. We have enough for everyone. But structural inequality means a few people have too much while many have too little. From the point of view of those who have almost nothing, the conspicuous consumption of the top one per cent feels close to contempt.

Overconsumption and flaunting of wealth is held up as an ideal, an enviable way to live. But it's more accurate to view it as stealing – from the earth, from humanity, and from the future.

How do we change social values? We've done it before. Excessive personal consumption should be as universally condemned as smoking while pregnant. At the same time, the simple gift of being content with having enough is priceless.



Enough

©Ester Strijbos

Give Peas a Chance

Bucking the system to sustain ourselves

by Zoe Blunt

Fifty years ago, it was an industrial wasteland. Then came the squatters, and a remarkable transformation took place: a guerrilla garden carved out of thorny thickets, the size of a city block. Garden beds built with scrap wood and filled with buckets full of dirt and compost. And so this abandoned Eastside Vancouver lot became the Cottonwood Community Gardens.

Resourceful punks and hungry hippies, activists, artists, basement renters, van-lifers, and couch-surfers took part in the take-over of this former dump site with a road right-of-way running through it. An Indigenous youth group built a sweat lodge for ceremonies. Volunteers pried apart pallets and put together a compost-to-soil system. Much of the land is still covered with impenetrable blackberry thickets three meters tall. But those bramble bushes feed people too.

For years, the city wielded its road easement like a sword, periodically threatening to build a new highway through the neighbourhood and the garden. New highways were indeed built, but the Prior Street corridor was spared. Eventually, the city granted the gardens a 25-year lease that expires in 2030. But there's no guarantee that city politics and development pressure won't bring the sword down on the gardens after all.

Over on Vancouver Island, the boulevard gardens and front-yard veggie patches of Victoria's Fernwood neighbourhood had "gone mainstream" by 2014, according to the Fernwood Neighbourhood Resource Group. After years of bylaw skirmishes, the city gave in and awarded its stamp of approval, and hundreds of homeowners turned to horticulture.

Why, then, has the trend not spread throughout Victoria and every city across the country? Especially now, as punishing tariffs make fresh produce from the south increasingly scarce and expensive?

There's nothing new about boulevard veggies and front-yard gardens. Almost one hundred years ago, during the Great Depression, cities and provincial governments established Relief Gardens. Almost a quarter million plots fed throngs of the unemployed. Victory Gardens followed during World War II, from Nova Scotia to Vancouver Island and everywhere in between.

In more recent times, cities and provinces have seldom taken the lead on these projects. Quite the opposite: guerrilla gardeners in the '80s and '90s were rebelling against rules, government, authority, and gentrification. Cheeky slogans were everywhere:

"Squash the state!" "Beet the system!" and "Give peas a chance!" These urban guerrillas went hand in hand with radical movements like Food Not Lawns and rowdy street-party scenesters symbolically ripping up roads with sledgehammers and planting parsnips in parking spaces. A short-lived burst of exuberance, but we thought we were changing the world.

Agriculture, of course, is an intensive working of the land. Planting a garden is very different from living the way original peoples did (and sometimes still do), foraging, gathering, scavenging, and hunting. Agriculture allowed the human population to explode to unsustainable levels, and that population now requires massive exploitation of the land. To survive the coming collapse, we'll need a new wave of Relief Gardens. And if governments won't lead, ordinary people will.

Almost a quarter million plots fed throngs of the unemployed.

A New Path

To save the future, we must become better human beings

by Hans Tammemagi

Am I really happy and satisfied? Where is my life going?

Have you ever asked these questions? Of course you have, for these are universal themes we all ponder from time to time.

Today, we face many obstacles in leading a satisfying life, but I dream that in 2050 the world will be a much better place to live. Conflict and suffering will have disappeared and instead, people will be friendly, supportive, and caring toward each other.

Sadly, unsustainable growth, both in human numbers – exceeding 8.2 billion and increasing – and our voracious demand for consumer goods of every stripe, is leading to global warming, plastics gyrating around the Pacific Ocean, smog hanging over major cities, worldwide pandemics, the loss of species, a shortage of resources, and conflicts in Gaza, Sudan, and elsewhere. The litany goes on and on.



Of course, this damaging growth is aided and abetted by technology, especially its incredibly rapid, largely-uncontrolled increase in complexity.

There is another factor, an immense one. That is, that humans have an evil streak; we are marred by greed. Many of us are

kind and thoughtful, but those who crave power, financial reward, and sex usually wind up ruling governments and corporations. This human weakness is seldom discussed, nor are ways to correct it.

While some recognize that defeating this evil is necessary to making the world a

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safe haven, sadly, decision-making usually resides with those who abuse power. The bad actors in charge believe that if fellow human beings and the environment get harmed, that's simply too bad, just a price to be paid.

Glimmers of hope, however, have appeared like tiny stars in a dark celestial sky. In the early 1970s, the King of Bhutan, after some soul searching, concluded that a major objective in life is to be happy. Wanting to improve the happiness of the people in his poor, rural kingdom, he replaced the Gross Domestic Product that measures economic throughput with "Gross National Happiness" as the main indicator to drive government policies.

This initiative recognized that quality of life depends on far more than material wealth and consumerism, and gave equal importance to non-economic aspects of wellbeing. Government departments needed to calculate the impact their policies would have on the Gross National Happiness index. The King drew inspiration from Bhutan's long-standing tradition of compassion and non-violence toward all living beings, rooted in its 1,200-year Buddhist heritage.

International support followed. In 2011, The UN General Assembly adopted a resolution titled *Happiness: Towards a Holistic Approach to Development*, calling happiness a "fundamental human goal" and urging member nations to follow Bhutan's example.

Unfortunately, in spite of being so forward thinking, the Gross National Happiness model never really gained traction – as of 2025, it is still only in use in Bhutan.

But another bright ray of hope comes from Denmark, which in recent years has ranked as one of the happiest nations in

In 2024, France introduced empathy classes in all schools.

the world. Maybe the way they raise their children is the reason? In 1993, Denmark made Empathy a mandatory subject for all students aged six to sixteen. For one hour per week, students discuss emotions, personal struggles, and group dynamics. These classes help students develop emotional intelligence, active listening, and conflict resolution skills.

The Danes have a country that is often chosen as one of the world's best places to live, and the teaching of empathy appears to be one of the reasons. The teachers are very supportive of the courses, which offer numerous benefits from improved social skills and stronger relationships to better conflict resolution, reduced bullying, and even improved academic performance.

Several other nations have followed suit and started teaching students how to become better people, with Japan and the Scandinavian countries leading the way. In 2024, France introduced empathy classes in all schools, aiming to address issues like bullying and isolation, and inviting students to recognize their own positive qualities.

In Canada, a human improvement course, the Roots of Empathy program, began in 2000 and is delivered in some schools three times a month. The program runs throughout the school year, targeting elementary school students from kindergarten to Grade 8. Teachers are finding that students enrolled in the course are less aggressive and more likely to say their peers exhibit good social behaviour.

The tiny country of Estonia, in northern Europe just south of Finland, is trying a radical new approach to human wellbeing. The *Hakkab Looma* ("Let's Start Creating") project, which began in March 2025, is a nationwide initiative to gather and share dreams about what the country could be like in 2050. The project aims to collectively imagine a future Estonia that is positive and sustainable by engaging a large number of people, including members of the large Estonian diaspora. Dreams will be collected, made publicly available online, and used by creative artists and cultural figures to inspire new works. Having envisaged a happy, holistic life lifestyle, the goal then will be to bring it to fruition.

Transforming humans into caring, peaceful beings is a huge change, and we need to vigorously pursue these glimmers of hope. We need to think hard about the kind of future we want, and take concrete steps to get there. We must strive to improve ourselves, and to learn that greed, growth, and material possessions do not bring happiness.

My dream is that the efforts made by Bhutan, Denmark, and Estonia will become much more popular, eventually becoming accepted by virtually everyone, and will finally transform our reality.

A former environmental scientist and adjunct professor, Hans Tammemagi has penned ten books and hundreds of articles.

Betting the Farm

Bringing back rural mutual aid and cooperation

by Arzeena Hamir

Farmers are no strangers to hard work and challenges. Despite years of experience, pages of planning spreadsheets, and the ability to pivot when markets change, one poorly-timed rain shower, an unexpected frost, or the appearance of a new pest or disease can wipe out all contingency plans.

Farming requires a village of support to succeed and for millennia, farmers have worked together to keep costs down and share resources and risk.

Within the last 40 years, we have seen the breakdown of mutual aid and cooperation in the agriculture sector. Barn-raising, borrowing equipment, and shared grazing used to be common practices within rural communities. Farmers are constantly being told that they need to be a “master of all trades” – not just in production, but in marketing, personnel, and business administration. Not surprisingly, the rates of depression and suicide among farmers are rising. The drive to be independent, to be less reliant on others, and to “make it on one’s own” may have diminished the demand for cooperation, but not the need.

Market collaboration

Thankfully, there are still some institutions that are built on farmer cooperation and collaboration. Farmers markets are probably the most visible, and they are more popular than ever, especially now with the US-Canada tariff war. Canadians who want to purchase local products know that they don’t have to spend hours searching the fine print when they shop at a farmers market. Markets require farmers to fund, manage, and operate collectively, participating in annual meetings and volunteering for non-profit boards of directors.

Even older than farmers markets in Canada are Farmers Institutes, which were incorporated into an Act in British Columbia in the 1930s. These Institutes enable farmers to work together to purchase equipment and inputs, raise funds for the community, and lobby government on issues related to rural life. Institutes

are meant to have a direct connection with the Minister of Agriculture and the current Minister does take them quite seriously.

Although not a formal group, North Vancouver Island hazelnut farmers have been meeting regularly for the last four years to exchange information on the production of hazelnuts. While hazelnut farming is not new to Vancouver Island, a wave of new farmers entered the sector a few years ago when the Ministry of Agriculture provided incentives to plant blight-resistant hazelnut trees.

The trees are now reaching maturity, but farmers are noting that there is a lack of processing infrastructure on Vancouver Island. Unlike their counterparts on the Lower Mainland, Island hazelnut farmers can’t easily ship their product to be dried and cracked. Instead, they are experimenting with small-scale equipment to try and process on the Island. While not a formal co-op, the group is looking to collectively purchase equipment from Europe that would fit the needs of small-scale growers.

Sharing land

Shared land is another resource that has become easier to access, thanks in large part to a BC-based organization, the Young Agrarians. Farmers who have excess land that they can no longer farm are matched with new farmers who are looking to enter into or expand production. YA has a plethora of information on its website (youngagrarians.org) but probably the biggest asset is its team of Land Matchers, many regionally-based, who work one-on-one with land owners and new farmers to create lease agreements that work for both parties.

At a recent screening of the film *Land to Sea*, hosted by the World Community Education Society in Courtenay, farmers were asked to discuss ways they were collaborating with each other in the region. Cohen Brown, representing local hazelnut growers, talked about the recent discussions about sharing equipment. However, he emphasized how important it was for growers to get together to discuss production techniques, as

very little data exists on the north end of the Island on hazelnut production.

Jill Lambert from Shorewolf Farm described how she established relationships with local chefs and restaurateurs and encourages farms to list their products by providing a more fulsome fresh sheet. “Restaurants love to hear about farmers working together, and it simplifies the ordering process when they just have to order through one email,” she says. Farmers drop off their produce at Jill’s cold storage, and she delivers to restaurants for a small fee.

“Restaurants love to hear about farmers working together.”

Collective marketing is also the reason that a group of farmers came together to form Comox Valley Organic Co-operative. Based at Amara Farm, north of Courtenay BC, the Co-op enables organic farms to sell at the farmers market and to restaurants through a single entity. Farmers are responsible for crop planning, production, and harvest. Once the produce is harvested, the co-op pays for wash stations, cold storage space, bags, twist ties, cartons, and delivery and market fees. The co-op charges a 20% fee to cover these costs, and any funds that remain at the end of the year are then reimbursed to growers.

While the co-op is a much more involved model, it does provide access to critical infrastructure that farmers, especially new ones, often struggle to pay for. In many ways, the co-op is a business incubator. It has grown from its initial four member farms to a total of six today. While each farm is its own unique business, allowing some independence, the co-op model enables product aggregation and access to markets that the small farms wouldn’t be able to achieve on their own. The best of both worlds.

Arzeena Hamir is a food security activist and farmer. She and her husband run Amara Farm, a certified-organic vegetable and fruit farm in the Comox Valley. www.amarafarm.ca



©Fernando Andrade

Isolated Together

Lessons from the quest for self-sufficiency

by Jasper Pryor

Around the world, traditional groups are practicing food production techniques that have remained unchanged for centuries.

There are also large numbers of recently-inspired people seeking to learn the ways of the land and to harness the potential of life around them. Driven by the romantic notion of surviving off of what one can produce oneself, great plans are made. The fragility and, frankly, the inadequacy of our industrial food production system drives this dream.

I have been fortunate enough to live and work across very different regions of the world, and through work-trading, have seen glimpses of many different lives.

Within these groups, I've encountered extremely talented and knowledgeable people producing vast amounts of their own food. However, against the backdrop of self-sufficiency – a kind of nirvana that many hold as the ultimate goal – there is often a sense of disappointment that the grocery store is still required.

In the luscious mountains of Northern Spain, it's easy to settle into a relaxed pattern of life. In spring, the mountain meadows are carpeted with an incredible range of wild orchids, each looking like the eccentric drawings of a surrealist. The colours are extraordinarily varied, reflecting the rich natural variation of the area.

In these mountains, large predators still exist. I was lucky enough to see a paw print from the endangered Cantabrian brown bear. Their population is recovering from near-extinction, but still there are only around 400 living in the wild. Shepherds roam with formidable mastiffs to protect their livestock.

In the midst of this landscape is a permaculture project that has stalled somewhat. The soil may be perfect for wildflowers, but its shallow, rocky nature presents significant obstacles for food production. Long, cold winters, combined with hot, dry summers, further complicate things.



©Elaine Casap

Bound by collective strengths

The people producing food in this environment are required to innovate and borrow techniques from other regions. An old Irish potato-planting method is used to build up enough soil depth to plant into. Hardy Mediterranean herbs and vegetables are planted annually and the ever-present fig tree grows prodigiously. Multiple strong mountain streams flow down the valley, providing much-needed irrigation as well as water for their homes. The freshet can be powerful but by late May, the streams have slowed to a trickle. Ensuring the early-year survival of fruit trees requires luck and hard work.

Driving this project is the dream of being able to survive unaided, surrounded by mountains and wild animals. It is the most peaceful of dreams and something that captures the imagination of so many people disillusioned by the world we live in. Yet even on this relatively small-scale project, the amount of work required to simply supplement their diet is enormous.

In practice, the isolationism that is inherent in the ideal of self-sufficiency is not possible. As a result, compromises and agreements are made. Relationships with neighbours are vitally important. A local shepherd grazes a flock of sheep on this rich mountain meadow in exchange for milk and cheese. Commu-

nities are bound by their individual weaknesses and collective strengths.

Over last summer, I had the opportunity to work on a hugely impressive project on Denman Island. Initially, existence there seemed completely tranquil, but that calmness hides twenty years of backbreaking work. Long-term planning and experimentation have changed this shallow-soiled landscape into a highly-productive food forest. Cereal crops proved to be time-consuming with minimal reward, but the bounties produced by mulberries, pears, and plums are extraordinary. In the future, a row of oak trees will mature, and their blanched acorns will provide an alternative to wheat and barley.

There is a genuine natural bounty available, too, in the form of black-tailed deer, scallops and chanterelles. Essential skills come in the form of harvesting and preserving this glut for times of scarcity. However, more food is still needed to support those living there. Basic grains are particularly important, and so too are all the other little things that we like.

Shared struggles on Denman

Denman Island is an unusually collectivized community with its free bus, farmers market, and myriad other social collections and occasions. It is also the place where I have seen the largest number of people striving for self-sufficiency. The isolation brought about by choosing this life is, ironically, a unifying experience. Shared struggles against common problems (weather, soil quality, access to water, etc.) bring people together.

The place I worked was an example of how to successfully live off the land, but they were open about the fact that this kind of existence relies on fossil fuels and global food production. Particularly interesting was the idea that their chickens are essentially laundering fossil fuels, as they turn shop-bought feed into eggs – a healthy source of protein with a clean conscience. Being honest about these facts can help to remove some of the barriers faced by many who are new to producing their own food.

Success and failure

When successful proponents of sufficiency are open about the fact that total self-sufficiency is not their goal, that openness removes some of the mystique around this way of life. It doesn't have to be all or nothing. On the other hand, if the goal of self-sufficiency were more easily attainable, perhaps the strong connections made by those living on these patches of land would not be necessary.

For this reason, I'm extremely glad that concessions have to be made and we still rely on the productive capacity of others in order to live a rich life. It's good that we challenge ourselves to support ourselves and learn the natural patterns that can sustain us, but falling short of self-sufficiency is certainly not failure. It is just another compromise between ideals and reality.

Jasper Pryor is a young writer focused on the changes happening to our climate. He has a passion for wilderness that he hopes to share with others.



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Dan Baxter, Pender Island Conservancy and Sarah Labadie, Pender Island Earth Day Beach and Road Cleanup organizer.
Photo by Hans Temmamagi.

Enough Yet?

Time to reassess our concepts of needs and wants

by Delores Broten

These days it seems everyone feels poor, even those in our society with the most riches and goodies. We rage, we envy, we run around until we are out of breath and out of time. But the treadmill gets us neither happiness nor satisfaction.

A new report from United Nations University, *Turning a New Leaf*, looks at the theory of deep change as the solution to the earth's mounting problems and human sustainability. It posits that such change is both possible and necessary. There is some way out of here!

This report, one of an annual series of *Interconnected Disaster Risks* reports, discusses five fundamental changes we can make in our societies to reduce risk. It asserts that reaching these goals requires a combination of “inner” personal change, and “outer” societal mechanisms, as happened with smoking.

Rethink waste: From trash to treasure

Recycling is often unsuccessful and a symptom of a wasteful economy. Redesigning processes for longer use and reuse are key to building the necessary sustainable future.

Realign with nature: From separation to harmony

Learn to coexist with nature instead of controlling it; for example, by de-channelizing rivers so they can meander naturally.

Reconsider responsibility: From me to we

“Fixing” a problem by shifting its impacts onto others reinforces the deep inequalities in our world, such as carbon offsets that displace Indigenous Peoples, compared to something like the UK's Peatland Code, which encourages the restoration and management of peatlands within the UK.

Reimagine the future: From seconds to centuries

Transition from short-term to long-term thinking, considering the lasting effects of our current actions on both the nearer and more distant future. Consider the impact of actions on the seven generations to come, as the Haudenosaunee Confederacy does.



Redefine value: Economic wealth to planetary health

Global wealth has soared, although distributed very unequally. But this wealth does not bring happiness (loneliness has reached epidemic proportions), so we need to develop better ways to evaluate progress and redefine “value.”

The report concludes:

“It is easy to feel hopeless when confronted with the many interconnected risks our world faces today, the sources of which are so deeply rooted in our societies that they can seem impossible to overcome and difficult to imagine how we can change the outcome. But our systems are not set in stone, and human-made problems can be unmade.”

“This report shows that it is possible to move beyond incremental changes and create a world that is not just free from disasters but also thriving. By redefining what we value and assume about the world, we can transform today's interconnected risks into opportunities for collective well-being and resilience. It is possible to radically imagine a better world, believe in our power to achieve it, and turn over a new leaf.”

—www.interconnectedrisks.org

The Spirit of Arbutus

Understanding an iconic West Coast tree species

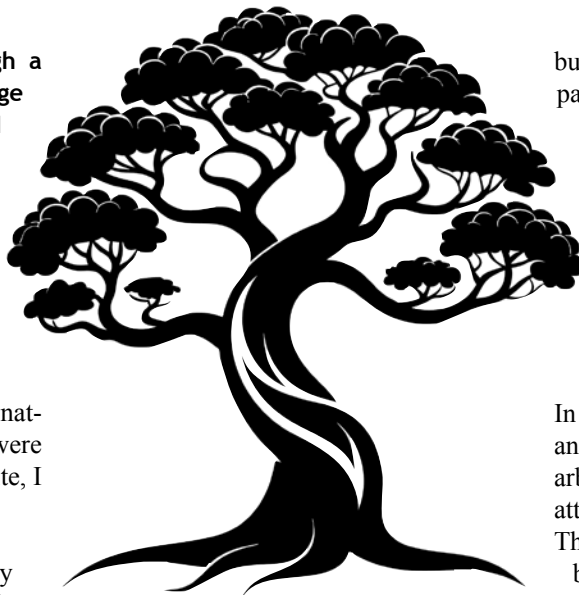
by Leif Gregersen

As a child, I often walked through a forest near my house and into a huge field of breathtaking rolling hills. I would always pause to drink in the beauty. This was a magical place for me, the grass a welcoming green, the hills the perfect place just to sit and marvel at the beauty of nature.

Now the hills have been terraced, and homes abound where I once thought natural beauty would live forever. If I were to return to this place of joy and respite, I would be arrested for trespassing.

In 2025, it seems development may never stop reaching further towards the farms, hills, and forests that are the heart and soul of this country. On the rocky water's-edge bluffs where the *Arbutus menziessii* ekes out its existence, the pressure to develop is intense and growing, driven by skyrocketing property values and the investor-oriented housing market.

The arbutus tree, also known as Pacific madrone, is a unique and resilient species found on the west coast of the US and Canada. No one can deny its beauty. The tree is unique in that it is evergreen but broad-leafed and sheds its paper-thin red bark in the summer. It is found only along the coast, perfectly adapted to shallow soils and rocky bluffs, but vulnerable to development, disease, drought, and climate change.



The WSÁNEĆ people revere the arbutus, as it anchored their canoes during the great flood.

Coast Salish First Nations recognize the arbutus tree's endurance, resilience, and strength. Different parts of the tree are used for carving and for medicines.

Arbutus trees are protected in many parts of BC, in part because coastal bee populations depend on their flowers. In municipalities like Victoria and North Vancouver, you can't cut down an arbutus without a permit. But the skyrocketing value of waterfront habitat spurs greedy developers to find ways of getting around these laws. They are allowed to cut down these beautiful trees if they are within a

building site, and with the breakneck expansion of home and business development, that could soon be everywhere.

Developers also sidestep the protection of arbutus trees by bulldozing, grading, and digging up the soil around the trees, which affects the root systems and eventually destroys them.

In the last few years, we've observed an alarming blight spreading through arbutus stands all over the south coast, attacking certain limbs of affected trees. The green, leathery leaves turn coppery brown. The cause can be drought, fungus, insects, or all three, but these trees are tough. They may lose a limb or two, but they almost always recover.

If you are lucky enough to have an arbutus on your property, respect it. Help it survive by watering it, keeping the area around the base free of debris, pruning dead branches, and making sure it gets everything it needs from the soil.

Leif Gregersen is an Edmonton-based writer, teacher, and public speaker who has written 12 books. www.edmontonwriter.wordpress.com

Is a River Alive?

Adventures in understanding the personhood of nature

by Andrew Park

“Who are your waters?” The answer to this Māori greeting reveals something about both the person responding and the lands in which they dwell. The question also provides a strong yet elusive subtext that flows through Robert MacFarlane’s latest book, *Is a River Alive?*

To the Māori, running waters are kin and ancestors, possessed of agency and rights of their own. A river is not an “it” but a “who,” and this crucial distinction lies at the heart of the quest to endow rivers (and other natural entities) with legal personhood.

Ask Robert MacFarlane who his waters are, and he’ll take you to the Nine Wells that trickle out of Cotswold chalk to give birth to the storied and abused River Thames. He revisits Nine Wells throughout the book – during drought-plagued summer, drab winter, and hopeful, bubbling spring. These visits anchor MacFarlane’s narrative in the local and personal, even as he transports us to the cloud forests of Ecuador, the violated creeks and deltas of Chennai, India, and a potentially death-dealing wild river in boreal Québec.

MacFarlane cannot make these journeys or answer the book’s title question alone. He’s accompanied by a cast of companions and helpers worthy of Tolkien or *The Odyssey*, all of whom are deeply connected to their own waters.

On the Los Cedros River in Ecuador, his companions include fierce local water defenders, a woman with a sixth (and possibly seventh) sense for finding rare fungi, and a pair of lawyers who enshrined rights for nature in the nation’s constitution. His walking companion and teacher in Chennai is Yuvan Aves, a young naturalist who transcended a history of parental violence to find inspiration in the small wonders of nature around the waterways he hopes to revive. Finally, to paddle the wild Mutehekau Shipu (Magpie) river in Québec, he needs the mentorship of three consummate river men, the perspective of a demon-haunted friend, and the blessing of a wise woman: poet and activist Rita Mestokosho.

Throughout his travels, MacFarlane wrestles with practical and philosophical questions about what being alive means for a river. For him, a major challenge lies in “unlearning” our enlightenment-focused, instrumental view of nature. On the Mutehekau Shipu, Rita Mestokosho sees a man who “lives too much inside his head.” She counsels him to “be a tree, be a bird, be a river,” to which he replies, honestly, “I don’t know how to do that.”

Fittingly, it is the Mutehekau Shipu who elects to answer some questions, even while testing MacFarlane and his friends’ endurance to the limit. Other questions, however, remain unanswered. What does the river want? Will human caretakers, no matter how well-meaning, end up “ventriloquizing” their own desires onto the river?

MacFarlane’s inner struggles are visible throughout the pages of *Is a River Alive?*, which simultaneously feels like the most urgent and least polished of his books. But while he occasionally struggles with the concept, his companions extol the sacred animacy of nature with admirable clarity. Perhaps the most profound expression of this credo comes from Arun, an Indian forester who spends his vacations rescuing marine turtle eggs from feral dogs. When MacFarlane asks him why he does what he does, the good forester answers, simply, “For life.”

Legal persons and their advocates

In 1972, Christopher Stone wrote a seminal rights-for-nature article, “Should Trees have Standing?” It lit a slow fuse that burned for decades until a flurry of legal decisions accorded legal personhood to a number of natural entities in the 2010s.

Courts, legislatures, and tribal councils have, at various times and with varying levels of legal force, declared the Amazon, Ganges, Atrato, Marañon, and Klamath rivers to be legal persons. In Aotearoa (New Zealand), the Whanganui River was granted legal personhood by an Act of Parliament, the *Te Awa Tupua Act of 2017*. In 2019, the Ohio state legislature granted Lake Erie the right to “exist, flourish, and naturally evolve.”



The *Te Awa Tupua Act* provides a model for pursuing both legal rights for nature and Indigenous reconciliation. Among other things, the Act established a corps of River Guardians tasked with speaking with and for the river. This template – a resolution, legal recognition, and the appointment of river guardians – was repeated for Québec’s Mutehekau Shipu (Magpie River). A coalition of local Innu people, whitewater paddlers, the Mingan municipal regional council, and SNAP (the Québec arm of the Canadian Parks and Wilderness Society) drafted Innu and non-Innu resolutions recognizing Mutehekau Shipu as a “legal person with the right to live, to flow, and to evolve naturally.”

In Canada, there are ongoing movements to grant rights and personhood to the Tenàgådino (Gatineau) and Fraser rivers. Each movement and alliance will carve a unique legal course dictated by the river’s geography, the human communities lining its banks, and the pre-existing legal frameworks within which river-rights advocates have to work.

But what, in practical terms, does legal personhood mean? The Canadian Bar Association notes the “idea of legal personhood

for the environment has not yet been tested in Canadian courts.” The *Lake Erie Bill of Rights*, which stopped short of recognizing legal personhood, was struck down after local farmers challenged it in a US federal court. And in India, Uttarakhand State successfully argued that personhood for the Ganges and Yamuna was “unsustainable at law” because the identities of custodians and liability for drownings on the rivers were unclear.

Nevertheless, rights-for-nature movements continue to gather momentum, fuelled by Indigenous philosophies of Nature and the parallel quest for reconciliation. According to Tenàgådino spokesperson Lissa Cowan, “Granting the Tenàgådino Zibi legal personhood would finally recognize what Indigenous people have always known – that rivers are living entities deserving of protection.”

Andrew Park is a writer, science communicator, and former professor of forest ecology based in Gatineau, Quebec.

The Fossil Fuel Influence Machine:

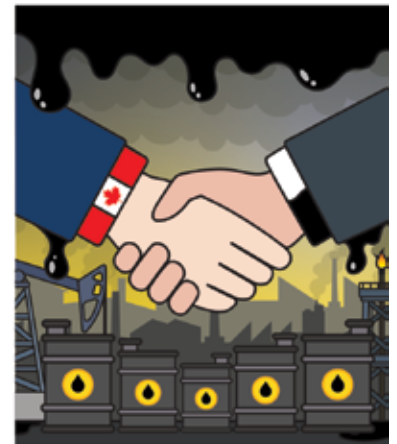
Big Oil's Hold on Canadian Politics

Lobbying has a **huge** impact on politics. For decades, Big Oil has used its influence to **weaken, delay, or block** climate policies in Canada. Their goal? Protecting profits by fighting against laws that would limit pollution.

Did you KNOW?

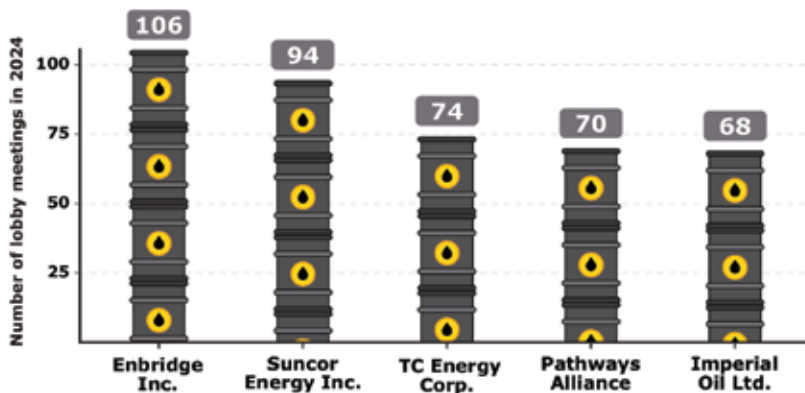
In 2024 alone, Big Oil lobbied the federal government at **at least 1,135 times**—that's more than four times per working day!

But that's just the **official** count. Only lobbyist-initiated meetings are recorded in Canada's public registry. Government-initiated meetings? **Not tracked.** That means fossil fuel lobbyists have even more influence than we can see.



Who's Bending the Government's Ear?

● **Figure 1. Top Five Most Active Fossil Fuel Lobbyists**

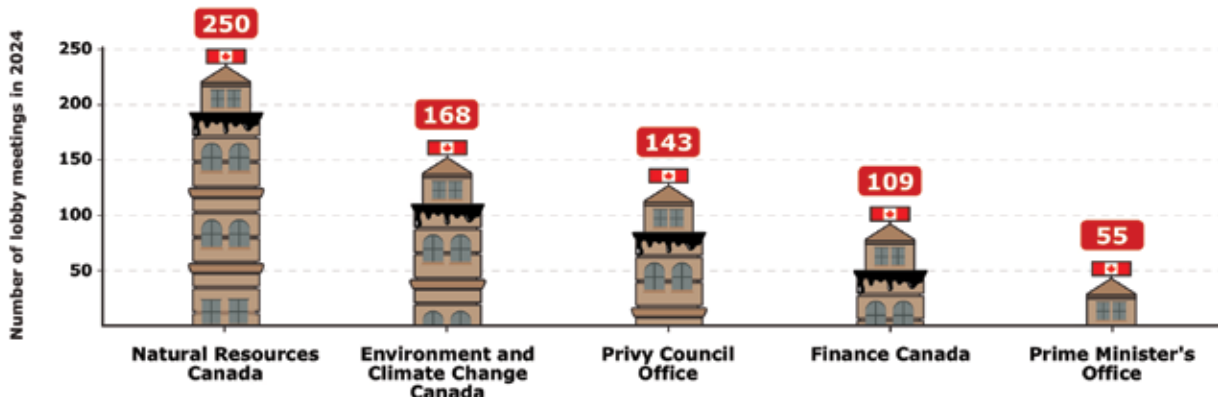


Recognize These Names?

- **Enbridge** is North America's largest distributor of fossil gas.
- **Suncor** is a major tar sands producer.
- **TC Energy** owns the controversial Coastal GasLink pipeline, which carries fracked gas.
- **Pathways Alliance** represents Canada's biggest tar sands companies. Combined, they and their members lobbied the government at least 350 times last year.

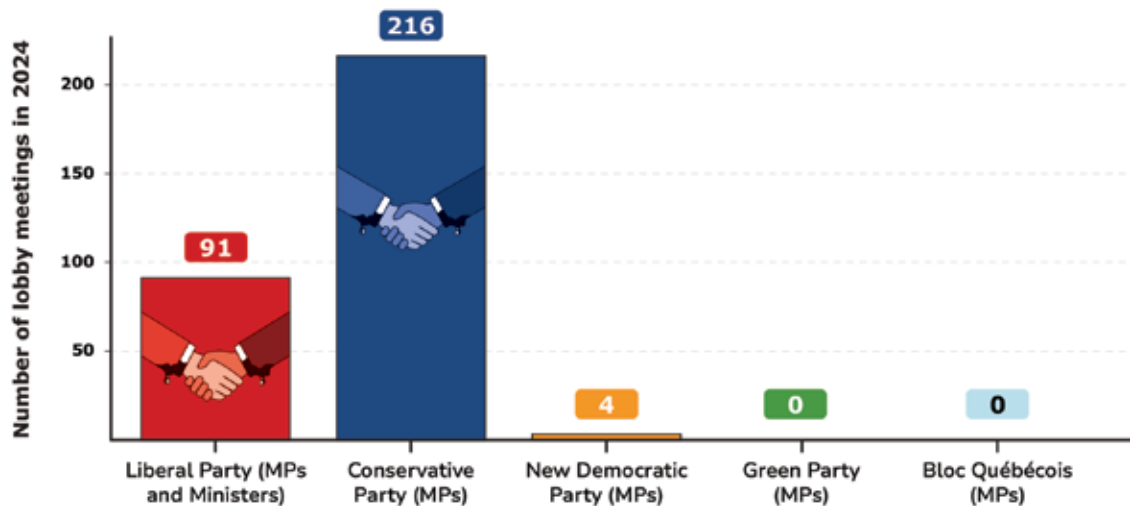
Who in Government is Listening?

● **Figure 2. Top Five Ministries Lobbied by the Fossil Fuel Industry**



Who in Government is Listening?

● **Figure 3. Lobby Meetings with Elected Representatives by Party**



Can Environmental Groups Keep Up?

Environmental groups like Environmental Defence Canada **have increased lobbying efforts** in recent years to counterbalance Big Oil’s influence. But fossil fuel lobbyists **still outnumber and outspend** climate advocates by a wide margin.

While environmental groups lobby for policies that protect **public health, the environment, and future generations**, Big Oil lobbies for corporate profits. Most of those profits flow to **foreign-owned companies and wealthy CEOs**—not everyday Canadians.

It’s Time to Prioritize People, Not Polluters

The fossil fuel industry has **too much power** in Canadian politics. Meanwhile, the communities hit hardest by climate inaction **don’t have millions to spend on lobbying**.

We call on the federal government to **stop meeting with fossil fuel lobbyists** and start putting public interest first.



Want to help break Big Oil’s grip on our government?
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Lithium Valley

“Green” greed threatens sacred places like Obsidian Butte



by Odette Auger

A place of cultural significance, Obsidian Butte at the Salton Sea once had waves washing the glittering outcropping of volcanic rock and natural glass.

“This is a special place,” says Diné climate journalist Noel Lyn Smith (Navajo), resting her hand on an obsidian boulder.

She asks me if it’s somewhere to leave *tádidíin* (corn pollen). I nod, feeling for the *weengushk* (sweetgrass) in my pocket.

Behind us, a power plant’s steam stacks mark the horizon. It’s one of eleven in a complex of geothermal station sites. Below the surface, lithium created by ex-

ploding stars is calling to those who see land as money.

The call for renewable energy and electric vehicles has created a new mining rush to supply “critical minerals,” including lithium. Volcanic activity formed this ridge of obsidian, and brought lithium-bearing magma to the Earth’s crust. The magma cooled and formed rocks, and the weathering of the rocks over time released lithium salts. When water eventually evaporated, lithium-rich brine was left behind.

The California Energy Coalition has stated the Imperial Valley could provide all of the US’ lithium needs, and 40% of the world’s. Controlled Thermal Resources’ Hell’s Kitchen project aims to be the world’s first commercial-scale project to use Direct Lithium Extraction (DLE) technology, which uses solvents to isolate lithium from the geothermal brine as it’s drawn up, instead of the longer process of extracting from large open ponds. The technology, which is untested at commercial scale, poses risks, including air pollution, hazardous waste, and freshwater consumption from an already overburdened Colorado river.

Drying sea, empty nests

Abandoned heron nests mark where the sea’s edge used to be. As the sea evaporates, a crusty playa stretches more than 500 metres before meeting the water, now twice as salty as the ocean. The sea has absorbed agricultural runoff since 1924, including pesticides such as DDT. The polluted waters have seen regular mas-

sive die-offs of hundreds of thousands of birds and millions of fish.

On March 7 2025, Earthworks and the environmental and social justice coalition Comite Civica del Valle (CCV) filed an appeal to the Imperial County Superior Court, following the court's February 26 dismissal of the groups' prior legal challenge to the approval of the Hell's Kitchen project. The community groups argue the county has violated the California Environmental Quality Act by approving the project despite a deeply flawed Environmental Impact Report.

"A just transition to renewable energy requires that we don't create new sacrifice zones for lithium mining," said Jared Naimark, California mining organizer for Earthworks. CCV believes the proposed Hell's Kitchen project should do more to mitigate water usage through stronger water conservation and recycling measures. Their December 2023 appeal requested "more concrete details and teeth to assumptions" about waste such as arsenic, lead, and cadmium before the project begins. "We won't give up on defending the integrity of those protections. And we won't let one corporation compromise Imperial Valley's future."

Today, members of CCV hand out masks, explaining the exposed seabed releases chemical dust into the air. The air quality index is not good, but acceptable for most. Once AQI hits 101, those with sensitivities are at risk to be outdoors – and 24% of the children in the Imperial Valley have asthma, triple the national average.

Another air quality risk posed by the receding waters is that more geothermal power plants may be developed as the sea shrinks and more dry land becomes available. Of the 12 geothermal drilling sites in the area, only one was closed-loop, and

I lean over, and see the nests are filled with birds' bones. Tears won't ever communicate this ache.

it's now abandoned. "Open-loop systems expel waste steam and gases into the atmosphere and generally result in greater environmental impacts than closed-loop systems," says the US Fish and Wildlife Service. ("Closed-loop" means the brine is extracted, processed, and then injected back underground.)

As of late 2023, only one of the three lithium extraction projects at various stages of development near the Salton Sea had completed an Environmental Impact Report. EnergySource Minerals' EIR can be used as an example to better understand these projects' potential impacts to air quality. The company plans to inject hydrochloric acid (HCl) into the brine as part of the mineral extraction, creating HCl aerosols, which can cause a range of health impacts, including difficulty breathing. EnergySource Minerals estimates their project will release 7,440 pounds per year of these aerosols, below the 10,000 pounds per year regulation – meaning they won't be required to mitigate emissions, and they will be allowed to add thousands of pounds of hazardous emissions into already degraded air.

Community voices

This place is a cutting example of the hubris of humans, from our attempts to control rivers to the selling and transferring of water rights during drought and climate change. I look to the wall of obsidian for shade from the noon sun, but find it hard to sit still. I'm not the first

to find this sheltered bevel to the rock – nooks are filled with many large nests. I lean over, and see the nests are filled with birds' bones. Tears won't ever communicate this ache, but some seep out. The Cahuilla creation story of this place tells of the Creator's tears forming the waters. I place weengushk into the nest, for the birds who still need this place.

Some community voices, including town councils and realtors, are keen to see the economic benefits of lithium mining. EnergySource Minerals claims it will be hiring local, and that's attractive to an area with 17.9% unemployment in 2024.

Bari Bean is the Deputy CEO (County Executive Officer), Natural Resources for southern California's Imperial County. Her title also includes "Lithium Ombudsman" and she was previously marketing manager for BHE, a company that owns 10 geothermal power plants in Imperial Valley. Bean explains they've received \$800,000 in state funding for "engagement funds," \$80,000 of which was allocated to tribal engagement. "It's intended to be for government-to-government consultation pertaining to our specific plan and our environmental impact report," says Bean. "But it can be used in a lot of different ways." She gives examples of travel, workshops and consulting fees, and marketing materials.

She says 8,000 acres have been earmarked for conservation, with culturally

Continued on Page 34 ⇨

significant sites noted. “Obsidian Butte is one of them But there’s more than one. There’s a lot of different areas that have been identified within that region.”

Has the company considered including in the community benefits and protections agreements mitigation of the violence against women and girls that follows these types of industries? Colwell declined to respond.

Silence fills the room, and it becomes apparent that nothing proactive is being considered by company or county. District 4 Supervisor Ryan Kelley speaks up as supervisor of the towns at the epicentre of this extractive industry. Unlike his colleagues, he doesn’t deflect the concern. “Your question is something that we do know, and are concerned about,” he says. He’s been visiting sites in Texas hoping to learn how to avoid the issues “man camps” can bring, including “spontaneous camping locations” and doesn’t want to see that happen in their county. “We are initiating things that will not let that happen here.” He says the conversation is happening, but adds, “Actually there’s nothing written to it.”

Silence fills the room, and it becomes apparent that nothing proactive is being considered by company or county.

In the Imperial Valley, drilling sites are not out in a rural area. The look of mass workers’ housing is different, often based in hotels, within low-income communities of colour.

The Northwest program director at Earthworks, Bonnie Gestring, says their advocacy “highlights the epidemic of violence and other social ills associated with extraction” in the flood of new mining projects across southwestern US. Through letters to Congress, solidarity marches and community workshops, Earthworks fights to bring attention to this “often ignored issue,” she says. “These man camps are temporary, but the trauma from sexual violence can last for generations.”

As a border community, an anonymous community member explained, the presence of cartel-trafficked drugs and sex means tracking violence relating to man camps would be harder to isolate statistically – if anyone was tracking.

Gestring explains mining laws and regulations don’t address this critical issue, but “clearly something must be done. Permitting agencies must take a hard look at the impacts of increased violence on women and communities when analyzing proposed projects.” Better laws and regulations are needed

to provide Indigenous Peoples and front-line communities with greater influence over mine decisions that impact them, she explains, and “that includes mechanisms related to man camp or temporary workforce siting, management and enforcement.”

Poisoned plants

Among the crystal sharp bluffs, plants delineate where the sea once met land. I notice one tall shrub’s leaves look like oversized sea asparagus. I pinch off the tiniest tip – exactly the same taste and crunch, Salicornia. The women of the CCV look askance – it’s toxic, they explain. Sorrow tightens my throat when I realize if it was a traditional food, it’s not edible now.

White pelicans float at the receding water’s edge, as the sea is a major site on the Pacific Flyway – an ancestral migration route and wintering place for many birds, including federally endangered species.

I think of the birds sensing danger, but having nowhere else to land.

Odette Auger (Sagamok Anishnawbek) is an award-winning independent journalist and storyteller living on Klahoose territory in the Salish Sea. Follow her work at www.authority.com/OdetteAuger.

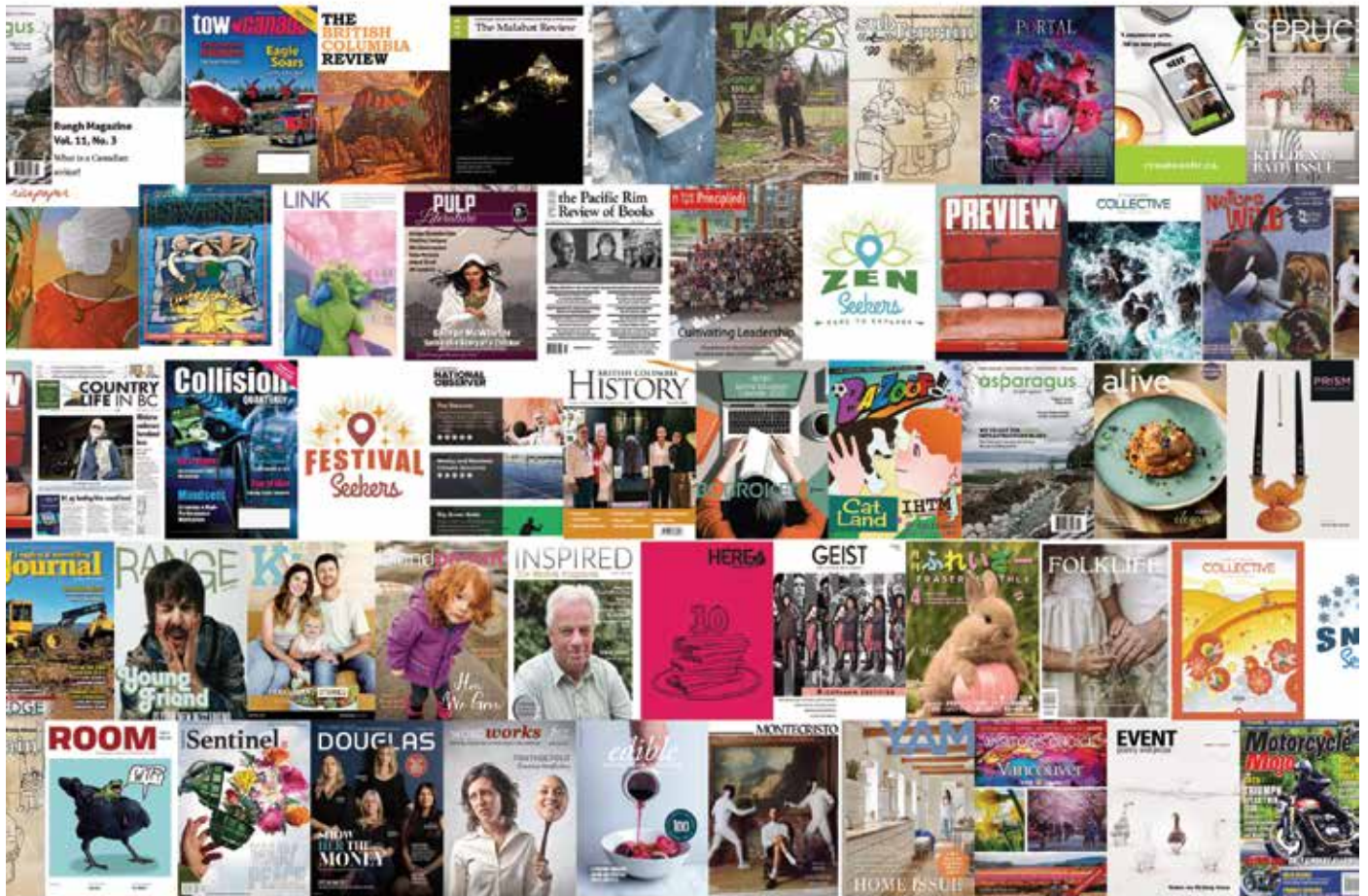
This story is the first in a series on “critical minerals” projects in the southwestern US. It was published with support from the Institute for Journalism & Natural Resources.



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Wild Times

Roadblock Rock

by Joe Foy

There's a lot of ways to meet your end on BC's mountain backroads – narrow, steep, eroded, unpredictable, and never far from a gut-clenching cliff.

In our neck of the woods, an innocent-looking bush can hide a soft shoulder and mighty hard landing, if you don't have a sharp lookout like Geoff Senichenko riding shotgun. It turns out that Geoff is also good at spotting water bars, those cross-road trenches whose purpose is to stop running water from running away with the road. Water bars can hide in the shadows. Failure to slow down to a crawl and ease into a water bar can result in a busted truck.

Our effort was part of the Wilderness Committee's work to get the government of Canada to stop the logging of spotted owl habitat. These days there are more NDP MPs in Canada's Parliament than there are spotted owls in the forest.

We carried a two-way radio to announce our location and listen for logging trucks coming down the road. But Wray Creek, located off the Hope-Princeton Highway, is not that kind of valley.

I was constantly stopping the truck so Geoff could get out and roll rocks out of the way. We inched around rocks too big to move and under trees leaning over the road that left just enough room for us to sneak by. And then there were the water-buffalo-wallow-sized water bars. It was pretty clear that we would not be meeting logging trucks in the Wray Creek Valley.

What we would be meeting were areas of spotted owl habitat marked out for logging with plastic ribbons tied to trees,



Joe and Geoff in a forest along the Anderson Valley Road in the Fraser Canyon near Boston Bar. This federally-mapped Critical Habitat for spotted owl was recently logged after being approved for logging by the BC government.

setting up boundaries for cutblocks and logging spur roads.

Some of the forests we hoped to visit were areas where a logging company had simply made a proposal to log and there wasn't much more to it. But the forest up ahead had a company logging plan that was nearing approval by the Province of BC. This is known as a "pending cutblock" in BC logging lingo. It was in a federally-mapped spotted owl habitat area. This we wanted to see.

But it was not to be. We crested a steep section of the eroded road and encountered a giant round rock sitting in the middle of the road. It had obviously rolled there – from where we could not tell. It was so freaking big. It mocked us with its size and silence. Geoff and I burst out laughing. The rock was like a monument to

twenty years of never-ending delays and roadblocks to getting spotted owl critical habitat officially protected from logging. We turned around and headed off to try another road. We left that roadblock of a rock sitting right there and continued on. Just like we've been doing for decades.

I had barely gotten out of the truck when the federal government notified us that the Spotted Owl Recovery Strategy is finalized and published! Surely now the province of BC is under enough pressure that they'll actually protect Spotted Owl Critical Habitat. This is a really big win!

Maybe this year it's really going to happen. Maybe the rock is a sign. Maybe it's just a rock. We'll see.

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

Thank You!

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