

Clearing the Air

10-part series on climate change published in West Kootenay newspapers

This series explores how climate change affects our community while countering misinformation that circulates locally. The 10 articles were published monthly from September 2024 to June 2025 in West Kootenay newspapers.

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The series was written by volunteer contributors with the West Kootenay Climate Hub: Tamara Schwartzentruber (chief editor), Tia Leschke, Diana van Eyk, Allan Early, and Laura Sacks.

All 10 articles appeared in print in the *Valley Voice* and *Nelson Star*, and online in the *Nelson Star*, *Castlegar News*, *Trail Times*, *Rossland News*, *Grand Forks Gazette*, *Boundary Creek Times*, and *Arrow Lakes Times*. Additional outlets may have carried them, but access is limited by paywalls.

You can also view individual columns on our website to easily share on Meta: westkootenayclimatehub.ca/blog

Part 1:

What is Community in a Time of Climate Crisis?

by Tamara Schwartzentruber, September 2024



Kootenay people have been through some rough times in the last few years.

As we work to stay afloat through the affordability crisis and to heal social rifts that the pandemic brought to light, we've faced a string of unnatural disasters like heat waves, wildfires, and unpredictable weather disrupting local food production – think the failed Creston cherry crop in 2024. Sometimes it can be hard to find the threads that hold our communities together.

So it's worth asking – what does community mean in these crazy times we're living through? What does it take to face the challenges together?

This is the first in a series of articles that look at what unnatural disasters and fossil fuel pollution mean to local communities in the Kootenays. We'll cover a wide range of topics, from following the money to find out how funding differs between climate research and industry-sponsored misinformation, through looking into the costs and benefits of electrification, to considering the impacts of fossil pollution on local forests and food systems.

Through it all, we'll be asking what climate change means to our communities, with the diverse views and the very real mutual care and shared needs we have here in the Koots.

To find some insight into what community means for us and what makes a real difference in getting through shared challenges, I talked with a few people who have lived through the recent wildfires in Argenta and Slocan.

Jessica Ogden faced threats from both fires, as her homestead in Mulvey Creek was threatened by wildfire that burned her water source and fence line while she remained in Argenta, where she rents a small cabin and lives most of the year.

On that crazy Wednesday night when three fires merged upslope from Argenta and residents were knocking on doors to evacuate people at midnight as the fire roared down the Argenta face, Jessica chose to stay and protect the McIntyre farm. In her words, "I chose to stay behind the [evacuation] order to help on the McIntyre farm, to protect food security, because really we had no idea how long it would last, and so many rely on the harvest of that local food."

Ogden was one of many residents of Argenta and neighbouring communities who pulled together to fight the fire and care for each other. The dedicated Argenta volunteer fire crew, led by Rik Valentine, worked alongside the hardworking BCWS folks to create fire guards and protect structures. People in Kaslo and elsewhere shared homes, food, information and healing services with evacuees who waited anxiously for news from a place where most houses are uninsurable and many people grow their own food.

Ultimately, no homes were lost, and those who remained took turns watering and tending evacuees' gardens as well as fire-smarting their dwellings.

A key factor in the success of the firefighting effort was planning together as a community before the disaster occurred. As Ogden says, "The importance of the years of effort by the community put into planning for this foreseeable tragic event all became clear and very relevant."

Another great example of pre-disaster planning bore fruit when the Slocan Integral Forestry Cooperative's new Resiliency Centre – in development since 2021 – opened just four days after the wildfires started near Slocan. According to SIFCo manager Stephan Martineau, the new centre became "a place for

people to meet each other in person, go through the uncertainty, stress and trauma together. The centre offered a respite from smoke and heat. It provided company, food and art therapy. It became a warm, welcoming place, with dozens and dozens of people using it."

When asked whether he thought most Slocan residents see climate change as a human-caused problem, Martineau responded, "I think it's mixed. The Slocan Valley is a very interesting community. When you meet people face to face, there's way more common ground than people realize if just connecting on social media, where strong opinions and reactivity can take over. That's why resiliency centres are so important... we see the human behind the various perspectives and can learn to listen to each other and find mutual ground."

As the communities of Argenta and Slocan found, there's more to community than shared belief systems. While we may have different perspectives on carbon, we need each other more than ever in the face of increasing unnatural disasters. Community lies in our ability to plan ahead and take care of each other's real needs before, during, and after crisis hits.

Tamara Schwartzentruber is a musician, teacher, editor and healer who lives in Kaslo with her partner and two kids and volunteers with the West Kootenay Climate Hub.

Photo: Chris Peterson hanging a Welcome Home sign after the evacuation order was lifted in Argenta. Credit: Louis Bockner

Part 2:

Big Oil, Big Bucks

by Tamara Schwartzentruber, October 2024



Like most Canadians, many Kootenay folks worry about the cost of living, with over two thirds of young BC residents naming it as their top concern. While it's easy to point fingers at current governments, price increases are a global problem. Canada's inflation rate is actually lower than many countries like the UK, the Netherlands and the entire Eurozone.

Our housing market is clearly disconnected from real incomes. But unnatural disasters associated with climate disruption are also fueling rising costs – not only direct damages but also through knock-on effects like rising home insurance rates and global food systems disrupted by drought and floods. The Canadian Centre for Policy Alternatives released a study calculating 2021's costs from extreme weather events like floods, landslides, wildfires, and the deadly heat dome at up to \$17.1 billion in BC alone. And it's just beginning.

Here in the Koots, it's too early to calculate the costs from this past summer's wildfires. But numerous homes and properties were damaged, tourism and arts revenues were severely impacted, and the fiscal and emotional costs to residents who had to flee the fires are incalculable.

With widespread financial stress, it's no surprise that people feel concerned about a carbon tax that many feel may be contributing to their rising costs. Yet BC's *Business Insider Voice* recently reported that the carbon tax increased grocery bills by only \$0.33 per \$100 (before rebates), while the tax's impact at the pump is almost negligible, with 96% of the increase attributable to the global oil market.

So what drives global oil prices? It's complicated, but the answer includes international conflicts and – no surprise here – fossil fuel industry profits. ExxonMobil topped out the list of fossil fuel giants in 2023, raking in a net \$36 billion, with the other five oil majors reporting profits of \$15 to \$21 billion each while our forests burned. Exxon CEO Darren Woods pulled a cool \$36.9 million salary last year, not including perks and bonuses.

One would think that with profits like these, big fossil fuel companies would be paying a fair share of taxes to help with the increasing costs of health care, housing and climate disasters. But research from the Fossil Fuel Subsidy Tracker shows that in fact, citizens are subsidizing these multinational corporations more than ever. In 2022, governments in Canada put money back in the pockets of big oil, gas, and coal producers to the tune of over \$4.4 billion in tax breaks and direct subsidies. That's a 37% increase over 2021, at a time when people are struggling to pay for basic living expenses.

As if these subsidies weren't enough, the Guardian reported in June that fossil fuel firms have been awarded \$80 billion of public money

in secretive court proceedings connected with international trade agreements.

With this kind of coin, these corporations have the means to invest in energy resources that don't destroy the planet's life support system. Their PR implies they're all in for transitioning to renewables. But reality is otherwise. A 2023 Narwhal article series outlines how fossil fuel front groups like Canada's Pathways Alliance have spent millions on greenwashing while lobbying politicians for increased production limits and reduced emissions curbs, as oil majors around the world slash investment in renewables and double down on manipulating the public (more on this next month).

What makes this particularly appalling is the fact that these companies have known about the ecological harms of their products since the late 1950s. According to Charlotte Taylor of Georgetown University, by 1968, when a report prepared for the American Petroleum Institute itself on gaseous atmosphere pollutants was published, "the oil industry knew beyond reasonable doubt about the relationship between burning fossil fuels and climate change."

So what can we do about it?

Besides voting for representatives who recognize the real costs of climate pollution, now and down the road, we can start by holding Big Oil legally and fiscally accountable for these costs. With the <u>Sue Big Oil</u> movement, BC municipalities – which rarely have taxation power over large corporations – are planning legal action to recover the costs we're paying for corporate profits in the form of climate-related disasters. Slocan was one of the first communities to sign on, and Nelson is currently considering joining after hearing from a local delegation.

This may not fix the whole problem, but at least we can demand that those accountable – corporations with "no soul to damn and no body to kick," in the words of Edward Thurlow – start paying for the impact their actions have on our lives.

Tamara Schwartzentruber is a musician, teacher, editor and healer who lives in Kaslo with her partner and two kids and volunteers with the West Kootenay Climate Hub.

Photo: Supporters of the Sue Big Oil campaign in Nelson before their delegation on September 24. 2025. Credit: Carlo Alcos

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Part 3:

Buying the truth

by Tia Leschke and Diana van Eyk, November 2024



We live in the Slocan Valley, where the summer wildfire emergency was scary. In Winlaw, wildfire smoke sometimes kept grandkids indoors and us out of our gardens. The hardest part was hearing folks from the Valley express their trauma from the evacuation. Some people lost their homes. Thanks to caring neighbours and strong community spirit, we've made it through another challenging summer.

As climate impacts get more real here and around the world, powerful interests are working hard to distort the public's beliefs about climate change. Following the money makes it easier to understand how we're being misled.

Much of the belief that climate action is unnecessary, too difficult, or too expensive is being promoted by fossil fuel companies. For years, they've been running a well-funded disinformation campaign to slow the adoption of renewable energy and our transition away from a carbon-intensive economy.

Decades ago, scientists paid by oil majors like Exxon and Shell reported that those firms'

activities were changing the climate, and it would get worse. Companies responded by adopting tobacco industry strategies for manufacturing doubt about climate science, as documented in Geoff Dembicki's 2022 book, *The Petroleum Papers*.

American billionaires the Koch brothers funnelled over \$127 million US to organizations attacking climate science between 1997 and 2017, many of them with innocuous-sounding names like "the Heritage Foundation" and "the Competitive Enterprise Institute." The industry spent over \$4 million US on Facebook and Instagram ads to spread false climate claims during last year's global climate conference, according to the Institute for Strategic Dialogue.

The climate denial campaign continues in less transparent forms, from inflaming the culture wars on social media to attacking climate solutions like heat pumps, renewable energy and electric vehicles.

According to the *National Observer*, the Canadian Association of Petroleum Producers (CAPP—Canada's most powerful oil and gas lobby group) paid for social media posts from "grassroots" groups like Canada's Energy Citizens—actually a now-defunct "astroturf" industry front group, of which others like Canada Action still exist.

For decades, CAPP has used this facade of public favour for oil and gas to secure public and political support, while relying heavily on government funding. The industry lobbied the federal government over 1,200 times in 2023 alone, according to Environmental Defence. In

2018, they convinced the feds to purchase the failing, partially constructed Trans Mountain pipeline for \$4.5 billion. Its final cost was \$34 billion of taxpayer money, for what may well become a stranded asset.

Big Oil and Gas have been equally successful at buying influence with provinces and now even municipalities. The Alberta government is currently running a \$7 million ad campaign against the draft federal emissions cap, filling front-page ads and TV screens with false claims that the emissions cap is a "production cap" and threatening that it will make "all of life's necessities more expensive." Never mind asking the worst polluters in Canada to help clean up their own mess. At the municipal level, gas interests are presenting misleading information to city councils including Vancouver and recently Richmond, hoping to reverse efforts to electrify new buildings.

The industry publicly denies the massive harm of its products, even paying scientists—usually from non-climate-related fields—to trash established climate science. Researchers Emily Eaton and Jennie C. Stephens have documented "multiple ways oil and gas companies have been investing in universities," including funding fossil fuel–friendly research and even getting directly involved in curriculum design.

The industry also massively over-represents its investment in renewable energy, which is

typically just 1% of companies' budgets. While industry profits reach all-time highs, climate change costs the public billions each year, and extreme weather events and poor air quality kill millions of people annually. Just last month, BC's atmospheric river killed four people.

Like most Canadians, Kootenay folks are worried about climate change. Every national, provincial and regional poll confirms our very real concern about our children's and grandchildren's future in a hostile, warming world. We can come together to work on inclusive solutions that strengthen our communities. As the Slocan Valley and our Kootenay neighbours recover from last summer, let's not forget large oil and gas corporations' responsibility for destabilizing our climate.

At the same time, we can be critical of what we absorb online. We're not saying information from YouTube videos, social media groups, or friends is necessarily wrong, but we can check it for accuracy against peer reviewed sources—more on that next month. And as we face the new challenge of a MAGA government south of the border, it will be more important than ever to make sure the truths we're taking in weren't bought and paid for by corporate lobbyists.

Tia Leschke gardens and makes music on unceded Sinixt lands in Winlaw. She wants a liveable world for her grandchildren.

Diana van Eyk is exploring rural and intergenerational living in Winlaw.

Photo: Louis Bockner

Part 4:

Listening to the scientists

by Laura Sacks, December 2024



This year will be the hottest year on record globally. Locally, we experienced a brutally hot summer, with 13 days over 35C in July alone in Nelson, compared to an average of 2 for 1991-2020.

How do we know this? From meticulous data collected in our region and across the world and carefully analyzed by scientists. The data unequivocally show that pollution from burning fossil fuels is trapping heat in our atmosphere and oceans, and destabilizing the relatively safe climate since the dawn of agriculture 10,000 years ago.

These scientists come from many fields, including meteorology, oceanography, geology, chemistry, physics, ecology, fire science and health.

Their research is mostly funded publicly and by competitive grants from large and small institutions. They publish their findings in peer-reviewed scientific journals, meaning the work is critically examined by others who are knowledgeable in the field before editors decide if it's worth publishing.

The consensus is overwhelming—with over 99% of scientific papers agreeing that humans are causing climate change, according to

peer-reviewed research like a 2021 article in *Environmental Research Letters*.

Climate scientists' average annual base salary—for people with postgraduate degrees—is \$76,000, according to glassdoor.ca. That's just \$3,200 more than the average Canadian. For contrast, according to CBC, the total 2022 compensation of an oil and gas CEO in Canada ranged from \$425,255 to \$16.6 million. Whose opinion is more likely to be motivated by the almighty dollar?

Scientists build on a knowledge base going back over 150 years, with the first study connecting carbon dioxide to climate warming from 1856. Today, sophisticated models accurately predict the global heating we've already seen and point to scary and uncertain times ahead, as climate pollution continues to increase and remains in the air for centuries.

Climate is based on long-term trends, but weather can only be predicted accurately a couple weeks out at best. So while these models aren't able to predict individual extreme weather events, the relatively new field of climate attribution science can quickly sort out random weather from the impacts of climate change. For example, the deadly 2021 heat dome in BC was "virtually impossible" without human-caused climate change, according to World Weather Attribution.

A lot of scary changes can happen relatively quickly as we flirt with tipping points—things like melting ice caps, permafrost and glaciers, disrupted ocean circulation, and forest die-offs. Such changes are irreversible in human time scales.

Local climate scientists like Dr. Mel Reasoner and Greg Utzig help local governments and businesses understand what to expect in the decades to come: continued hotter and drier

summers, warmer and wetter winters, less predictable growing seasons and extreme weather events. Wildfires will continue to intensify. Forests may not be able to grow back after fires because of extreme heat and drought.

This is heartbreaking because it impacts so much of what we love about living in the Kootenays. Picture our beautiful mountains with no forests thanks to runaway climate change, making the forest protection efforts of so many local people meaningless.

Scientists tell us that what we choose to do in this decade will dramatically affect whether our local climate stabilizes in the second half of this century or continues to get hotter (see BasinClimateSource.ca). Children born today will be in the prime of their lives then. Rapidly shifting from damaging fossil fuel pollution to cleaner energy and transportation has everything to do with our kids' future.

How does it feel to be a scientist staring into the void of a dystopian future while decades of warnings go unheeded? "I find it increasingly difficult to be optimistic about the world we are leaving for our kids and that breaks my heart," shares Dr. Reasoner. "I have been struggling with this on a personal level."

"The science is concerning, but it's the lack of meaningful response by human society that's depressing", says Utzig. "Time is running out."

Climate scientists who've been sounding the alarm for years have been ruthlessly attacked and threatened online by fossil fuel interests because solutions will drastically impact their bottom lines. This type of treatment isn't just inhumane and unacceptable; it's delaying action at a time when it's absolutely essential.

We owe these scientists deep gratitude for their hard work, and it's high time we take heed of what they are saying so we can help protect the places we love in the Kootenays. It's not too late to keep this beautiful home livable for our kids.

Laura Sacks lives in rural Castlegar, has a science background and focuses her time on climate advocacy. She is also a mother concerned about her kids' future.

Photo: Local scientists Greg Utzig and Dr. Mel Reasoner help our community understand the local risks we face from climate change. Credit: Laura Sacks.

Part 5:

Climate and your pocketbook

by Tia Leschke, January 2025



The cost of living here in the Kootenays is skyrocketing, as it is everywhere. The price of common goods has gone up and will keep doing so. While many factors contribute, extreme weather events brought on by climate change have made this much worse. The carbon tax is responsible for very little of this inflation—just a 0.5% increase since 2019, according to a recent University of Calgary study. Compared to other influences, this is a drop in the bucket. If we don't understand the root causes of the affordability crisis, scapegoating the carbon tax won't help.

Let's look at some examples of how the climate crisis contributes to rising costs for everyone. Violent weather cost the world \$2 trillion over the past decade and \$451 billion over the last two years. The staggering losses from the LA fires are expected to be upward of \$150 billion, according to CBC.

The cost of wildfire protection in Canada exceeded \$1 billion a year for six of the last 10 years. According to a 2022 report by the Canadian Climate Institute, climate change will increase average household expenses by \$720 per year by 2025 and up to \$2,300 by mid-century.

Closer to home, the Okanagan and Creston Valleys lost their soft fruit crops to extreme weather last year, with devastating financial impacts. Many orchards lost so many trees they won't be replanted. The wine industry was also badly hit.

In the Kootenays, many people were evacuated because of the wildfires last summer. At least one home was completely destroyed, and people lost outbuildings, forests, gardens and water systems.

Blaine Cook, for example, lost acres of his forest north of Slocan to fire. This will be expensive to replant because the fire was so hot it destroyed the soil, forcing him to import new soil. Insurance doesn't cover this kind of loss. Property owners who want to sell will see their property values decline, even if their houses were undamaged.

The Slocan Valley's economy depends on tourism, with many businesses earning up to 80% of their income in summer. Between the evacuations and smoke, these businesses suffered as tourists stayed away and events were cancelled.

Niko Bliss, the owner of Bliss Cafe in Slocan, lost thousands of dollars in revenue and products. Niko said "staff did not have any work or get paid for over two weeks," adding that "it's not just the two weeks, it's weeks beforehand and after. I could try to claim more with the insurance company, but in the end, it's not really worth it. And I've heard that once you claim anything due to wildfires, then they remove it from the policy."

The Slocan Lake Arts Council cancelled six out of eight planned concerts last summer, with losses over \$15,000. The Hidden Garden Gallery cancelled five out of 10 planned exhibitions, and the Valhalla School of Fine Arts lost over \$70,000.

As these unnatural wildfires become an annual reality, business owners and organizations will be thinking hard about climate change risks when planning for next summer.

Home insurance is getting pricier because of wildfires and floods, affecting homeowners and renters. Insurance may soon become unavailable for many homes. In southern California, insurance policies were cancelled for 72,000 homes because of wildfire risk, according to CBS. Try selling your home when it can't be insured.

According to the Insurance Bureau of Canada, the summer of 2024 shattered records for severe weather and wildfire losses in Canada at over \$7.7 billion. And for every dollar of insured losses, taxpayers are on the hook for three times that in rebuilding infrastructure.

The amount that governments spend dealing with climate change (fires, floods, heat domes,

etc.) is going up. In 2023 alone, the BC government spent \$1.1 billion on wildfire response and \$400 million on flooding and other disaster response.

And firefighting costs are just the tip of the iceberg. The total costs of a wildfire can range from six to 30 times the suppression costs. They can include evacuation, destruction of homes and infrastructure, loss of timber, sterilization of forest soils, and increased flooding, erosion and landslides. That doesn't even include mental health impacts.

Wildfires also cost the Canadian health system. For example, a single week of wildfire smoke in June 2023 cost Ontario an estimated \$1.28 billion in increased health costs.

Both public and private sectors are waking up to this new climate reality. Addressing the root causes of climate pollution—including burning fossil fuels—is critical to making the changes we need for a safe climate future. We owe it to younger generations to rise to the challenge.

Tia Leschke gardens and makes music on unceded Sinixt lands in Winlaw. She wants a liveable world for her grandchildren.

Photo: Residents anxiously watching the wildfire across Slocan Lake from Silverton last summer. Credit: Chris Kölmel

Part 6:

Why we still love our EV

by Allan Early, February 2025



Every time I drive our Kona Electric, I feel good. Even after four and a half years and 100,000 km, my wife Marsha and I have never regretted buying an EV.

Our EV is a pleasure to drive. It's very responsive, going from 0 to 90 km/h in three to four seconds. Its weight (4,700 lbs.) and low center of gravity make it stick to the road like glue even during heavy downpours or slushy snow, and when we need to pass a logging truck on our curvy two-lane highways, it does it quickly and safely.

We love our EV because its motor uses about one third of the energy a gas engine uses to go the same distance, making it way cheaper to operate and maintain.

We've lived in the Slocan Valley since the late 1980s, and like many in the West Kootenays, we often travel to Kelowna—about 650 km return. When new, our gas-burning Subaru used an average of eight liters of gas every 100 km or 48 liters for a Kelowna trip, costing \$88.

Our EV uses an average of 15 kilowatt hours of electricity to drive 100 km. We do 85–90

percent of our charging at home at 12–15 cents per kWh. Getting to Kelowna costs \$7.88. To get home, we have to charge the car at a public charging station for 35 cents a kWh, or \$19.60, a total trip cost of \$27.48—about a third the cost of a gas burner.

Not only is electric power cheaper, but when you take your foot off the accelerator, the slowing e-motor generates electricity and stores it in the battery using regenerative braking. When we go up the Paulson Summit then down into Castlegar, we regain all the energy we used on the way up and more. This is also why an average EV's brakes last twice as long as those of a gas vehicle: less braking is needed because the electric motor slows the vehicle down instead, reusing the captured energy.

After 92,000 km, I took our car to the dealer and asked them for a complete examination before our 100,000 km warranty expired. Nothing needed repair or replacement, including the original brakes. Any gas vehicle with that mileage would have replaced the brakes at least once and had at least six oil changes and/or other work on fuel-related parts and equipment.

Simon Fraser University's Clean Energy
Canada program reported last July that the
average electric hatchback or SUV would save
its owner \$28,000 in the first 10 years. People
who buy EV pickup trucks like Ford's electric
F-150 Lightning would save over \$40,000 in 10
years. (SFU's EV report *The Scenic Route*provides well documented facts refuting
several other myths about electric vehicles.)

The most common concern people have is the upfront price of an EV compared to an equivalent gas-powered vehicle. The manufacturer's suggested retail price for a basic 2020 Kona was \$45,000. The federal and provincial cash rebates reduced that by \$8,000. We financed the balance for the same monthly payment we would have paid for an equivalent gas-burning vehicle. EV prices are coming down and are expected to match gas vehicles in two to three years without government rebates.

One other question people have about EVs is how far they can go on a full charge. When new, our Kona had a range of 500 km on one charge. We have lost some range since then, but bear in mind that Hyundai's warranty

covers the high voltage battery for at least 160,000 km or eight years. Besides the warranty, current batteries are projected to outlast the vehicle they power. You should also know that *all* BC provincial highways have public charging stations every 150 kilometers.

Finally, we love our EV because it produces no polluting global warming gases like carbon dioxide. We drive 20,000 km a year. Our Subaru burned about 1,600 liters of gas annually, emitting four metric tons of pollutants every year. To us, our children, and our grandchildren, that difference means a lot.

Allan Early is a retired lawyer, former Nelson business person and a past president of the Nelson and District Chamber of Commerce. Before practicing law, he owned and managed an energy conservation company that insulated some 500 homes and buildings in and around Nelson.

Photo: Allan and Marsha with their 2020 Kona EV. Credit: Sophie Wuttunnee

Part 7:

Going Electric in the Kootenays

by Allan Early, March 2025



Gail Elder of Winlaw was one of just 21 B.C. residents honoured with the 2024 Medal of Good Citizenship for "...extraordinary contributions to community life," Premier Eby commended Gail for creating the Slocan Valley Community Band, teaching organic gardening skills with his partner Brenda, and for his lifetime of teaching music in the Valley.

The Premier could have added that Gail and his son Krispen have also contributed to mitigating global climate change by installing solar collectors to provide most of their electricity, including powering Gail's hybrid Toyota and Krispen's Nissan Leaf EV, which saves them thousands in gas every year.

In the last five and a half years, Gail and Brenda's solar array has produced 43,060 kilowatt hours of electricity, saving them more than \$6,000 (based on a 15¢/kWh price). That savings covered half of the \$12,560 they spent on parts and installation. When they've paid that off in five years, they can look forward to 19 more years of free electricity.

The Elder family show how individuals can help achieve B.C.'s climate goals, including the electrification of our transportation and building systems by 2050.

B.C. and Quebec are leading the way in electrifying transportation. At current rates, there will be about 400,000 electric vehicles in BC by 2030, making up 90% of new sales but adding only 2% to our electricity demand, according to a recent report by Clean Energy Canada. And since nearly 40% of B.C.'s CO2 emissions are from gas-powered engines, this goes a long way toward meeting our climate targets.

Besides passenger cars and trucks, about half of BC's carbon pollution from transportation comes from commercial trucks and buses. Businesses are now recognizing the strong case being made for clean-energy trucks and buses, including lower energy and maintenance costs and less down time.

One of Clean Energy Canada's case studies features Metro Vancouver's Whisky Jack Transport, who rents electric vehicles to the film industry. These have the added benefit of lowering noise and air pollution, creating a healthier environment for workers and residents where they're filming.

Another major source of carbon pollution and energy use comes from heating and cooling our homes. On a household level, home heating makes up the largest portion of energy use, regardless of the source. Most BC homes are heated by natural gas or electric baseboards, but more people are switching to heat pumps because of their high efficiency

(2.5 times more efficient than gas heating, according to Natural Resources Canada).

Plus newer cold-climate heat pumps work effectively to -30 C, and heat pumps also act as filtered air conditioners—a huge boon as our summers get hotter and smokier.

Clean Energy Canada found that switching to a heat pump could save a typical BC household nearly \$570 a year, taking into account the cost of equipment and deducting available rebates. Those switching to heat pumps from baseboard electric could reduce their annual heating costs by 40% or more.

In recent years, building codes have improved considerably, and new homes are more efficient than their predecessors. Improving the energy efficiency of older homes and large buildings can ensure that heat stays inside, instead of heating the outdoors through leaky doors and windows and inadequate insulation.

Domestic hot water is the second largest energy user in most residences, whether it be resistance electric or fueled by natural gas. Heat pump water heaters are two to three times as efficient as conventional systems, further reducing your energy costs and household carbon pollution. Cooking energy costs can also be halved by replacing your gas range with an electric induction range, with the added bonus of having cleaner indoor air.

Wondering how to navigate various rebates and loan programs to make your home healthier, more efficient and less polluting?

Kootenay residents can take advantage of programs like the Regional Energy Efficiency Program and the CleanBC Better Homes program, which features a free climate coach and a guide to provincial energy-savings rebates for new homes or renovations. To help with affordability issues, some of the programs are income qualified, while others are aimed at renters and landlords.

Like the Elder family of Winlaw, individuals and businesses across B.C. and Canada are finding ways to reduce their energy bills and carbon pollution. Maybe you are too?

Allan Early is a retired lawyer, former Nelson business person and a past president of the Nelson and District Chamber of Commerce. Before practicing law, he owned and managed an energy conservation company that insulated some 500 homes and buildings in and around Nelson.

Photo: Gail Elder with son Krispen showing this writer Gail and Brenda's solar system on their farm north of Winlaw. Photo credit: Allan Early

Part 8:

Climate and Our Forests

by Tia Leschke, April 2025



Kootenay residents really love our mountains and forests. Barbara Brown, Artist of the Forest, is well known for that love. Barbara became intimately acquainted with the forest near her home in the Slocan Valley by walking in it every day for the last twenty years. She discovered the physical, mental, emotional and spiritual healing power of the forest after bouts with depression and lung cancer. When asked how it would feel to lose the forest around her, she answers with a story about Fortis clearing a nearby right of way for several weeks. She felt ungrounded and at loose ends, and finally realized it was because she hadn't been able to walk in her forest.

Even those without such a strong connection with our forests would feel devastated if a large fire swept through, as many experienced just last summer in our area.

You might say, "well, it will grow back." That's true, but we might not get the same kind of forest. Kootenay-based conservation ecologist Greg Utzig says when fires are large enough and hot enough, there can be few to no trees left to reseed. And those trees that do grow might die young because of drought stress. According to Stephan Martineau of the Slocan

Integral Forestry Cooperative (SIFCO), hotter fires can also sterilize the soil, killing off essential microbes.

It's hard to imagine, but we could end up with dry grasslands or savanna instead of forests here in the Kootenays. If we don't quickly phase out the burning of fossil fuels—the largest source of climate pollution—that's what we're probably facing by the end of this century.

According to local forest ecologist Herb Hammond, climate change is making our area less hospitable to some trees growing here now, such as western hemlock, western red cedar and birch. Until recently, local birch were in balance with the bronze birch borers, but because of climate change, the borers are winning.

Climate change leads to hotter and drier conditions, increasing the probability and intensity of wildfires and enabling invasive species to compete with native trees. Forest pests thrive without cold enough weather to kill them. While old growth forests have high populations of carnivorous beetles that keep the mountain pine beetle in check, those carnivorous beetles aren't around in the tree plantations that follow clearcutting. When forests are logged or burned in wildfires, their stored carbon is released, adding more carbon to the atmosphere. According to Nature Canada, logging is the third-highest source of climate pollution in Canada, after oil and gas and transportation. It's a vicious circle, with climate change causing increased fire activity, which contributes greatly to climate change.

How do we get out of this circle?

Clearly, we need to phase out the burning of fossil fuels globally. At the same time, we have to change the way we do forestry to support more biodiversity. The most flammable forests are tree plantations that were sprayed to eliminate less combustible deciduous trees. We need what Hammond calls Nature-Directed Stewardship (NDS)—a system that prioritizes ecosystem protection, maintenance and restoration as well as human use.

The first priority in NDS is to maintain or restore natural ecological integrity, including biological diversity. The second is to provide for balanced human and non-human use. Nature-Directed Stewardship envisions people living respectfully within the ecosystems that sustain us.

Years of fire suppression and outlawing traditional indigenous burning have led to denser forests with much higher fuel load. This has made it hard for local species to compete, and made bigger, hotter, more aggressive fires like those we saw last summer far more likely.

We need to reinstate routine preventative burning, and that's beginning to happen. The Ktunaxa have been using cultural burning to clear the understory of excess fuel, helping prevent extremely hot and fast-moving fires. But without stopping fossil fuel pollution, it's not enough to prevent catastrophic wildfires in a rapidly heating world.

The cycle of climate change making fires worse and those fires making climate change worse is scary, but there are ways out: decreasing fossil fuel pollution, changing the way we practice forestry and doing more prescribed and cultural burning can help. Let's do everything we can in our communities to break this cycle, so we can keep our beloved forests.

To learn about next steps, our upcoming interactive online Resilience Cafe on April 30 will feature Hammond and Suzanne Simard (details at westkootenayclimatehub.ca).

Tia Leschke gardens and makes music on unceded Sinixt lands in Winlaw. She wants a liveable world for her grandchildren.

Photo: Barbara Brown in a forest near her home. Credit: Isaac Carter, of ICandyFilms.com

Part 9:

Climate and Your Dinner Plate

by Diana van Eyk and Tamara Schwartzentruber, May 2025



Food: our most intimate and delicious connection with nature. From our gardens' bounty to the chocolate and bananas we import, it needs a stable growing environment.

Climate disruption destabilizes our environment and affects every level of the food system, locally and globally, making the backbreaking work of our farmers harder and driving up food costs.

Scott Humphries from Bent Plow farm in Blewett reports, "the 2021 heat dome changed the way we think about how we schedule staff—starting early, taking a big break, doing a later shift, having respirators and N95 masks for when it's smoky... As fire season approaches, I feel anxiety building in me."

Weather unpredictability messes with crops too. Disruption of pollinators' schedules can prevent crops from ripening. Extreme heat, drought, flooding, wind storms or sudden cold snaps can kill crops. BC's grape and soft fruit crops (cherries, peaches, etc.) were devastated by the sudden harsh freeze in January 2024, after months of unseasonable

warmth and little snow cover. With fruit trees still recovering from the heat dome, some suffered long-lasting damage.

The breadbasket of California, which provides year-round food, is hurting too. The California Climate and Agriculture Network points out that "rising temperatures, constrained water resources, and increased pest and disease pressure threaten to fundamentally challenge California agriculture in future years."

Meanwhile, the CEO of our formerly friendly southern neighbour sees Canada as a "very large faucet" he wants to own.

Local food retailers feel these impacts.

According to Kootenay Co-op store manager
Dirk Gibbs, "with our southern supply chain for
produce, food is weather damaged, not
growing, coming in early or late. All food
growing regions are having some level of
challenge: too much rain, not enough rain,
heat. We see this every day."

With unpredictable crops and fickle international trade relationships, food prices will likely soar, while many go hungry—Food Banks BC reports total visits rose by 81% between 2019 and 2024.

But consuming cheaper, industrially-grown food has consequences for local farmers, our health, and the climate. Relying on subsidized, pesticide-laden fruits, vegetables, grains, meat and packaged food makes non-subsidized locally grown foods comparatively more expensive, leaving small farmers with a pricing dilemma as they try to make ends meet. Imported, mass-produced foods and inhumane, ecologically disastrous industrial

meat production cause massive climate pollution and environmental damage. They destroy soil ecosystems, release climate pollutants like methane, and use mind-boggling quantities of fossil fuels for production, processing, packaging, shipping, refrigeration and marketing.

This creates a destructive cycle of climate and ecosystem impacts, food insecurity, and human costs. We rely on large-scale industrial agriculture, which worsens the climate and biodiversity polycrisis and makes small-scale ecological farming harder. We become vulnerable to global agriculture supply chains shaken by climate and political turmoil.

In the Kootenays, many are taking action to reduce climate impacts, help local growers, and ensure food security. How can we work with them?

Patrick Steiner, past president of the Central Kootenay Food Policy Council, points out that "locally or organically grown food generally has much lower impacts than imported food. It's worth asking: 'where do I get local food? Who are my local food producers?'" He adds that besides farmers' markets and direct-to-consumer CSAs, local retailers and food guides like the one the CKFPC puts out are great resources.

Patrick also comments that local farms need direct government support to build climate-resilient infrastructure like polytunnels, drought-conscious water systems and bio-based plastic covers for mulches, because

"the farmers can't bear those costs themselves."

In Winlaw, Rob Hay of the Valley Kitchen tells us they're working on an emergency food response plan that could potentially include doing an inventory of local farms, their locations and food related businesses.

In Cranbrook, the Good Food Branch of the Community Connections Society helps people assist local farmers. They also collect edible but non-saleable food, 70% of which goes back to people, 29% to farms, with just 1% actual waste. Sophie Larsen, program manager, feels we need more diversity in how we grow food, including methods, food recovery and prioritizing getting food to people. This reduces waste, including labour, transport costs and soil inputs.

Amanda Verigin, Kootenay Co-op Marketing Director, brings it together clearly:

"Eating local is a form of climate action. Your climate efforts may look like a drop in the ocean, but what you can do in your area is empowering. Eating locally has huge benefits from reduced transportation, supporting local employment, and having local food available. The efforts we can make in our own backyard are key."

For an in depth discussion of the interconnected world of food culture and production, consider joining our interactive webinar on May 28 (details at westkootenayclimatehub.ca).

Diana van Eyk lives in Winlaw, where she's exploring intergenerational living.

Tamara Schwartzentruber is a musician, teacher, editor and healer who lives in Kaslo with her partner and two kids and volunteers with the West Kootenay Climate Hub.

Photo: Emma Sowiak and Scott Humphries of Bent Plow farm with their two older sons and the newest addition to their family in the front carrier; photo courtesy of Scott Humphries.

Part 10:

Where do we go from here?

by Tamara Schwartzentruber and Laura Sacks, June 2025



Summertime can feel full of possibility: time outdoors, visits with friends and family, gardens and music festivals. But summer now has another face—anxiety about wildfires, smoke, heat and drought. Climate change has made our summers hotter and drier, leading to a huge increase in wildfires. Events big and small are disrupted. Some stay indoors with air purifiers when our sweet mountain air turns hazardous, while others have to labour in the smoke and heat.

Since we started this series last September, much has changed. We've had provincial and federal elections. We're feeling the devastating impacts of the US elections. We experienced the hottest year on record, and climate pollution is at an all-time high.

It can feel overwhelming, like we're up against powers beyond our control.

This seems especially true as false and misleading narratives increasingly dominate our information ecosystems. As we outlined in an earlier article, misinformation about the causes, severity, and immediacy of global climate breakdown has been pushed deliberately by oil and gas industry front

groups and extremist right-wing think tanks like the Heritage Foundation (authors of Project 2025), posing as rassroots citizens' groups. They do their best to obscure the scientifically established fact that continued fossil fuel pollution is the main driver of climate disruption.

It's not just climate change that is subject to this kind of distortion. The American Psychological Association points out that "the spread of misinformation and disinformation has affected our ability to improve public health, address climate change, maintain a stable democracy, and more."

Increasingly, people in Canada and elsewhere get information about current events from social media and podcasts, making us vulnerable to manipulation by those who write the algorithms to maximize engagement by promoting polarization, scapegoating, hate and conspiracist viewpoints.

Similarly, many of the most popular podcasts are hosted by ultra-conservative commentators like Jordan Peterson and Tucker Carlson. This likely plays a role in the increasing support for far-right populist politics among young adults around the globe. According to Yale Climate Connections, eight of the 10 most popular online shows have spread false or misleading information about climate change.

In a 2024 webinar, Canada's Naomi Klein discussed how conspiracy-oriented perspectives that took root during the pandemic now permeate the online world and tend to "spring into action after every extreme weather event," adding that "it's as if

conspiracy culture has replaced traditional climate denial." While conspiracy pushers may get the facts wrong, they often get the feelings right, tapping into deep and legitimate dissatisfaction with today's global systems.

At the same time, fewer people trust traditional media outlets. While there may be legitimate reasons for distrusting large, corporate-owned media, abandoning the role of professional investigative journalists and replacing them with TikTok and YouTube influencers makes it even harder to determine what's real and what's false.

So how can we help each other discern what's true, when so many of our information channels are drowning in garbage?

First, we can build community resilience and overcome polarization by creating more community connections. That means getting offline and talking with our neighbours, listening to each other's real lived experiences and helping each other today, as well as during emergencies.

Second, we can talk about climate change and who is benefiting from the disruptions that we see in our communities and around the world. We can share what we know about how fossil fuel interests have made record profits, hijacked international conferences and knowingly misled us about the harms of their products while our forests and our future burn.

Third, we can use practical climate solutions that also improve human and ecosystem health, increase jobs and affordability, protect water, save us money and create community connection—things like heat pumps, solar energy, more affordable EVs, energy-efficient home design and retrofits, restorative agriculture, repair cafes that reduce consumption, and rurally oriented transit options. We can apply these personally, where possible, and advocate for them collectively.

Focusing on positive solutions addresses our deep, shared sense that we cannot continue to do things as we have been. It's time for creative ideas that come from the full cross section of society, including youth, Indigenous people, and the marginalized. More LNG facilities and pipelines are not solutions to 21st-century problems.

We can all push back against vested interests and toward positive changes needed for a safe climate future. We can use our voices. We have power together for a better future for our kids and everything we love—our trees, our summers, our water, our air, and each other. Later is too late.

Tamara Schwartzentruber and Laura Sacks are mothers concerned about their kids' future. Tamara is a musician, teacher, editor and healer who lives in Kaslo with her partner and two kids and volunteers with the West Kootenay Climate Hub. Laura lives in rural Castlegar, has a science background and is immersed in climate advocacy.

Photo: Participants at the first annual Ready & Resilient: Community Preparedness and Rural Living Fair in Slocan, Saturday, May 31, 2025. Credit: Therin Rhaintre

Links to published articles

All 10 articles appeared in print in the *Valley Voice* and *Nelson Star*, and online in the *Nelson Star*, *Castlegar News*, *Trail Times*, *Rossland News*, *Grand Forks Gazette*, *Boundary Creek Times*, and *Arrow Lakes Times*. Additional outlets may have carried them, but access is limited by paywalls.

September 2024

Part 1: What is Community in a Time of Climate Crisis?

- Nelson Star: <u>Clearing the Air: What is community in a time of climate crisis? Nelson Star</u>
- Valley Voice:
 - https://www.valleyvoice.ca/_PDF_2016/ValleyVoice240 919web.pdf (page 8)
- Also in print editions of <u>Castlegar News</u> the following week

October 2024

Part 2: Big Oil, Big Bucks

- Nelson Star: <u>Clearing the Air: Big Oil makes big bucks</u> -<u>Nelson Star</u>
- Valley Voice:

https://www.valleyvoice.ca/_PDF_2016/ValleyVoice241 017web.pdf (pg 15)

November 2024

Part 3: Buying the truth

- Nelson Star: <u>Clearing the Air: Buying the truth about</u> climate change - Nelson Star
- Valley Voice:

https://www.valleyvoice.ca/_PDF_2016/ValleyVoice241 128web.pdf (pg 9)

December 2024

Part 4: Listening to the scientists

- Nelson Star: <u>Clearing the Air: Listening to climate</u> <u>scientists - Nelson Star</u>
- Valley Voice:

https://www.valleyvoice.ca/ PDF 2016/ValleyVoice241 212web.pdf (pg 12-13)

January 2025

Part 5: Climate and your pocketbook

- Nelson Star: <u>Clearing the Air: Climate and your pocketbook Nelson Star</u>
- Valley Voice:

https://www.valleyvoice.ca/ PDF 2016//ValleyVoice250 116web.pdf (pg. 12)

February 2025

Part 6: Why we still love our EV

- Nelson Star: <u>CLEARING THE AIR: Why we still love</u> <u>our electric vehicle - Nelson Star</u>
- Valley Voice:

https://www.valleyvoice.ca/_PDF_2016//ValleyVoice250 227web.pdf (pg. 24)

March 2025

Part 7: Going Electric in the Kootenays

- Nelson Star: <u>CLEARING THE AIR: Going electric in the</u> Kootenays - Nelson Star
- Valley Voice:

https://www.valleyvoice.ca/_PDF_2016//ValleyVoice250 327web.pdf (pg. 12)

April 2025

Part 8: Climate and Our Forests

- Nelson Star: <u>CLEARING THE AIR: Saving our forests</u>
 by changing the cycle Nelson Star
- Valley Voice:

https://www.valleyvoice.ca/ PDF 2016//ValleyVoice250 424web.pdf (pg. 9)

May 2025

Part 9: Climate and Your Dinner Plate

- Nelson Star: <u>Clearing the Air: Climate and your dinner</u> plate - Nelson Star
- Valley

Voice: https://www.valleyvoice.ca/ PDF 2016//ValleyVoice250522.web.pdf (pg. 24)

June 2025

Part 10: Where do we go from here?

- Nelson Star: <u>Clearing the Air: Where do we go from here? Nelson Star</u>
- Valley Voice:

https://www.valleyvoice.ca/ PDF 2016//ValleyVoice25 0619web.pdf (pg. 15)